This email is to alert conservationists of the desert Southwest that the proposed SunZia transmission project is still attempting to set a dangerous precedent for climate change mal-adaptation. With additional unacceptable changes to the project now being proposed, I do not want any group to be in the position of saying, "If we had only known more about the nature of this project, we would have taken a different or more active position." Thus, this email is being sent to multiple members of over 20 different organizations that are aware of the SunZia transmission proposal. Please forgive my typos.

I have been studying this proposal and actively intervening for the past 13 years. I recognize that electrical grid planning decisions seem complicated to a lot of people. However, the central message of my advocacy is simple. This major 520-mile interstate infrastructure proposal:

- 1) Was not conceived to find a route for transmission of central New Mexico's wind energy that minimizes adverse impacts,
- 2) Was poorly coordinated and planned with other interests,
- 3) Would suppress the development of distributed renewable energy,
- 4) Would cause unacceptable adverse impacts to two of the last remaining desert river ecosystems in the Southwest, and
- 5) Is obviously not the least damaging alternative available for the transmission of wind energy originating in New Mexico.

If you don't believe me on any of these points, please read the citations associated with the summary of each point in the discussion below (also attached). Email or call me if you think I'm on the wrong track.

It has come to my attention that some organizations continue to be more influenced by the politics associated with this project rather than a logical ecological analysis. Contrary to SunZia's lobbying narrative, their project is not a "done deal". The purpose of this email is to make sure that each conservation organization has the information available to vet this project from an ecological perspective. During this era of climate crisis, we are all accountable for either addressing climate change in an effective manner or contributing to the problem by making uninformed decisions, passively going with the political flow, or standing on the sidelines. Which will you choose?

Regarding the draft Environmental Impact Statement that is currently undergoing a public comment period, the *No Action* alternative is the least ecologically damaging alternative being offered by the federal oversight agency (BLM) for most of the amendments that are being requested by SunZia. It was SunZia's decision to keep the range of available route alternatives as narrow as possible. From an ecological perspective, that leaves the *No Action* alternative as the best option available. See my explanation in point #5 below. If you wish to collaborate or possibly co-sign with the comment package that I will be drafting for review by the Lower San Pedro Watershed Alliance, please let me know soon. Comments are due at the end of July.

I also plan to remain active in the state permit processes, where SunZia has been attempting to bypass evidentiary hearings. I encourage you to do the same in either Arizona or New Mexico.

Peter Else

520-487-1903

BACKGROUND INFORMATION FOR EACH MAJOR POINT:

1) SunZia was not conceived to find a transmission route for New Mexico's wind energy that minimizes adverse impacts. Its objectives emerged in a haphazard and opportunistic manner.

SunZia was conceived in 2006 to transmit electricity east and west out of Bowie, Arizona, which was the site of a large planned and permitted fossil-fueled plant also owned by SunZia. Original plans were not focused on transporting wind energy from central New Mexico to energy demand centers in Arizona and California. Over several years, its route was modified and the project was repackaged in 2008 as a renewable energy project following the election of President Obama.

See these reports that were written and documented by the late Norman "Mick" Meader, a geoscientist who intervened in SunZia's 2015 Arizona Line Siting process:

<u>CWG - Research, Reports and Letters (cascabelworkinggroup.org)</u>

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Obama opened up federal lands for renewable energy projects, and SunZia's lobbyists were successful in getting priority track status with an administration that was eager to prove its commitment to an "all-of-the-above" energy policy. SunZia's pitch to potential investors was that over 85% of their proposed route would be sited on relatively low-rent state and federal lands. They defined a project "study area" in the shape of a narrow serpent to ensure that their major new industrial-scale infrastructure corridor would be routed through Bowie, would minimize high-cost land acquisition areas, and would provide long-term financial opportunities for a private corporation. Minimizing land acquisition costs and intersecting with the planned Bowie Power Plant resulted in routing their project parallel and adjacent to the Rio Grande and the San Pedro River, the most important avian migration and breeding corridors in New Mexico and Arizona.

From the start, this project was not designed to determine the least impactful way to transmit wind energy westward from central New Mexico. It was originally designed for another purpose, but ultimately designed to grab remote state and public lands for use and profit by a private corporation.

2) SunZia was poorly coordinated and planned with other interests.

This point should be obvious. It has already taken 13 years, three federal environmental review processes, a narrow approval of a state permit in 2016 in Arizona, the rejection of a state permit in New Mexico in 2018, and newly pending amendments in each of those two states. Some SunZia proponents blame the expenditure of so much time and \$200 million on "needless red tape", but other competing transmission projects (Western Spirit and Southline) that started later in the permitting process easily surpassed SunZia in both permit progress and in reducing the per-mile cost of planning their transmission projects.

After convincing the Obama administration that their project proposal deserved fast track status, SunZia convinced the federal oversight agency (NM office of the BLM) to select an environmental contractor that had been working directly for SunZia's owners to become the BLM's "third party" environmental

contractor for the development of an Environmental Impact Statement ("EIS"). This environmental contractor continued to act on behalf of SunZia's interests during federal and state permit processes.

Ecological interests were ridiculed by SunZia's spokespersons as being hypocrites and NIMBYs if they did not blindly accept that SunZia was highly beneficial for renewable energy development in the region. Line burial proposals to protect avian flyways on the Rio Grande were expeditiously dismissed by SunZia consultants as being infeasible in the 2013 EIS.

Military interests were not happy with the 2013 EIS routing decisions imposed by a special Defense Clearinghouse department set up by Obama to fast-track energy projects. When White Sands Missile Range finally flexed its political muscle, a compromise was reached between SunZia and White Sands that would involve burying three segments of the proposed lines north of the missile range. Hired consultants had to be brought in again, this time to reverse SunZia's prior contracted study that asserted line burial would not be feasible. An Environmental Assessment ("EA") was rapidly conducted to modify route decisions in the 2013 EIS. In the end, neither White Sands nor SunZia were happy with this compromise. However, the line burial EA was pushed through at the end of 2014, and the Obama administration approved SunZia's federal permit early in 2015.

A year later, SunZia's Arizona permit was narrowly approved by a 3 to 2 vote of the Arizona Corporation Commissioners, following a Line Siting process in which SunZia promised to minimize impacts in a special designation area of the San Pedro River, among 36 other conditions specified in the Arizona permit. However, SunZia's permit application in New Mexico was subsequently rejected by a 4 to 0 vote of the Public Regulatory Commissioners in that state.

All these hang-ups were not simply due to "red tape". SunZia tried to use their hired contractors and Obama administration policies to override military and ecological interests. Nobody came out happy, including SunZia.

SunZia went back to the drawing board, but mainly focused on getting sufficient political support in New Mexico. They narrowly received project endorsement from commissioners in Socorro County by promising a \$20,000 per-mile payment through that county [see the last portion of this article: SunZia offers to move project out of White Sands - Albuquerque Journal (abgjournal.com)]. Two Arizona organizations led by ranchers (Natural Resource Conservation Districts of the San Pedro watershed) were bought off in a similar manner.

SunZia is currently proposing routes further to the north of White Sands to avoid line burial costs and gain some political support from military interests, but are doing so to the detriment of ecological interests along the Rio Grande by now impacting not one, but two, National Wildlife Refuges ("NWRs") along that river. This directly violates the conservation purpose of the Sevilleta NWR.

Meanwhile, along the San Pedro River, SunZia is attempting to get vehicular access through a conservation easement in the special Paige Canyon area specified in their 2016 Arizona permit and completely bypass evidentiary hearings for amendments they now need for their state permit. SunZia's attempt to bypass evidentiary hearings is currently being contested before the Arizona Corporation Commission. SunZia has also made statements of intent to bypass evidentiary hearings in New Mexico.

3) SunZia's transmission model would suppress the development of distributed renewable energy in the Southwest.

One of the most significant changes now being proposed by SunZia is to make their first line a 3000 MegaWatt ("MW") direct current ("DC") tie-line, instead of a 1500 MW alternating current ("AC") line that would have additional intermediate substations in New Mexico and Arizona to upload and download energy resources. SunZia is currently in the process of attempting to sell the first line to Canadian-owned Pattern Energy Group LP ("Pattern"), and to help Pattern gain rights to 100% of transmission capacity on this line. If successful, Pattern would hold a vertical monopoly on both energy production and transmission for this 520-mile interstate line. Pattern's attempt to establish this monopoly on the highest capacity 3000 MW line is summarized in this article.

The DC "tie-line" in this case would essentially be a 520-mile extension cord for Pattern Energy to dump 3000 MW of wind energy from their central NM wind farms into the center of Arizona's electrical grid, with significant negative consequences on available transmission capacity for the development of distributed renewable energy within Arizona. These consequences are not being considered in the federal permit process, and SunZia is trying to bypass evidentiary hearings to consider these consequences during the Arizona permit amendment process.

During the Enron scandal, California learned that energy security and resiliency to large-scale power outages depend upon the development of energy resources that are distributed throughout the state to the highest degree possible and upon preventing centralized corporate dominance of transmission capacity within a state's electrical grid. Pattern and SunZia are planning to send a huge portion of NM wind-powered electricity to the center of Arizona, without fully considering how to get most of that energy to markets in California. Pattern wants to use Arizona's grid capacity to move their NM wind energy from central Arizona to those markets. This would be financially advantageous to Pattern, but not advantageous for the distributed development of renewable energy within Arizona, which also needs transmission capacity.

Centralized corporate control of transmission dynamics and over-dependence upon a long interstate supply chain did not work out well for California. They subsequently prioritized in-state development of renewable energy and reserved a sufficient amount of their grid capacity to support this new in-state energy development. Arizona would be wise to do the same. Social conditions rapidly deteriorate when there is a major power outage in the desert in the middle of the summer. Wise management of grid capacity and the development of Arizona's ample renewable energy throughout the state will reduce the dependence upon long supply chains and help prepare Arizona for the heat waves associated with climate change.

Local development of renewable resources should be our highest energy development priority, especially in the Southwest where renewable energy resources are abundant. The outmoded era of central control of energy resources by utility companies should not be replaced with large-scale centralized control by private corporations. Renewable energy development should be distributed to the highest degree possible, in order to reduce transmission distances, reduce greenhouse gas emissions embodied in the construction of new long-distance tie-lines, and promote resiliency to climate change. If your organization has an energy policy that facilitates centralized corporate control of energy generation and transmission in the desert Southwest, you are on the wrong side of history.

4) SunZia's routing model would cause unacceptable adverse impacts to two of the last remaining desert river ecosystems in the Southwest.

It is unconscionable that SunZia was routed to parallel both the Rio Grande and the San Pedro River in the first place. This is a fatal ecological flaw in the basic routing design of the SunZia project proposal. They only got away with it because a naïve administration and several naïve environmental groups put the SunZia proposal on a priority track during the early period of renewable energy transmission proposals. That history has been recorded. Don't compound that misguided history by enabling the SunZia proposal or by standing on the sidelines during the current federal and state permitting processes.

Adverse impacts to the ecosystems of the Rio Grande and the San Pedro River were unacceptable under the 2013 EIS. The project was routed past the Bosque del Apache NWR in NM and along 33 miles of a previously undisturbed portion the San Pedro River that SunZia's own project manager recognized as being ecologically inappropriate [see page J-737 in the SunZia Final EIS of 6/14/2013]. The amendments now proposed by SunZia and their recent actions along the most ecologically sensitive portion of the San Pedro route are significantly increasing these impacts.

The Sevilleta NWR has specific purposes that were memorialized by the Campbell Family Foundation when The Nature Conservancy accepted and later transferred that conservation designation to the U.S. Fish & Wildlife Service. The project should not be routed along the Rio Grande impacting both the Sevilleta and Bosque del Apache NWRs. The new draft EIS states: "The cumulative impacts to wildlife and increased habitat fragmentation would be long term and adverse." [see section 3.3.28.8 of the new draft EIS] If you are not already familiar with the why these two NWRs are vital to the migration and wintering of Sandhill cranes, start out by reviewing this two page summary [Sandhill Crane Brochure (state.nm.us)]

In violation of the purpose and warranty deed of the Sevilleta NWR, SunZia is proposing to significantly increase habitat fragmentation by tripling the height and doubling the structural complexity of two existing electrical lines. We are not talking about typical high-tension lines that you often see in rural areas. We are talking about going from 30 to 50 foot rural structures to industrial-scale double-circuited electrical corridors, and on a National Wildlife Refuge, no less. If you think this proposed change in infrastructure would be inconsequential, take a field trip to the nearest 500,000-volt lines to your home and walk under them when they are running at full capacity. As you experience the scale and sensations of that much power, think about how other animals react when they come upon these towering lines that buzz and crackle above the disturbed vegetation in the corridor right-of-way. Compare that to the smaller rural lines that were grandfathered in at Sevilleta NWR. I did. There's no comparison.

Reports are emerging that at least one environmental group may be negotiating with SunZia to obtain a "mitigation property" near Sevilleta NWR. Obtaining a mitigation property in this situation will not offset landscape fragmentation impacts to the NWR. The major role of the big conservation groups should be to protect formally designated conservation areas, not cut deals with corporate profiteers that fragment these areas.

Along the San Pedro River, SunZia is currently attempting to establish road access and construction/maintenance areas in a special designation area where they had previously pledged to minimize vehicular access (the Paige Canyon wildlife corridor area in Cascabel, Arizona). The road access they are seeking passes through a Forest Legacy conservation easement. The owner of this easement was unable to garner substantial support from the major conservation group that arranged for that conservation easement, nor from the state agency charged with enforcing the terms of the easement. He finally had to come out on his own and say "NO" to SunZia. How much confidence do you think this landowner has that the terms of his conservation easement will be enforced after he passes on?

SunZia is now requesting federal approval for access roads all along the San Pedro River [see Component 2 of the new draft EIS], roads that would exacerbate landscape fragmentation by their project. Further downstream and adjacent to the Oracle State Park International Dark Sky designation, SunZia is attempting to bypass any state or federal consideration of new information about lighting requirements on their proposed towers and lines near San Manuel Airport.

The adverse ecological impacts posed by this project were unacceptable to begin with, and are growing with each stage of project development. Do not stand on the sidelines and watch this travesty continue to unfold in slow motion.

5) SunZia is not the least damaging alternative available for the transmission of wind energy originating in New Mexico.

Both the Southline Transmission Project and the Western Spirit Transmission Project have proven that it is not necessary nor appropriate to grab 520 miles of remote land in order to move New Mexico's renewable energy to portions of the Western Electrical Grid where transmission capacity is being freed up with the retirement of fossil-fueled generation plants.

Unlike SunZia, Southline was conceived to co-locate new transmission capacity with existing linear infrastructure to the highest degree possible. They achieved this objective by co-locating their project for 85% of the final approved route [Southline Transmission Project], as compared with SunZia's 2016 co-location factor of 53% [SunZia 2013 EIS, page E-4]. New attempts of SunZia to co-locate with existing infrastructure are taking place in locations that are the *least* appropriate for that purpose, such as through the Sevilleta NWR and crossing the Rio Grande at a critical avian migration nexus.

Also unlike SunZia, Southline provides a dozen substations for uploading and downloading energy resources along their entire route from New Mexico to central southern Arizona. The Southline Project promotes distributed energy development, whereas the SunZia proposal for its DC line suppresses distributed development, to the favor of a single corporation with energy holdings in central New Mexico.

There is a right way and a wrong way to promote distributed energy development and resiliency to power outages in the desert Southwest. Read Southline's federal scoping, in which they offer their own line for transmission of New Mexico energy resources and offer constructive suggestions for route alternatives that would avoid major ecological impacts to the ecosystems of the Rio Grande and the San Pedro River. Also, point #3 in these comments discusses how almost no consideration has been given

to the impacts of dumping 4500 MW of New Mexico's wind energy in the middle of the Arizona grid. Southline's scoping comments.

Western Spirit's strategy was to minimize tie-line distance (less than 30% of SunZia's proposed length) to portions of the Western Electrical Grid where transmission capacity was available. Reducing the length of the supply chain is consistent with the distributed renewable energy model described earlier and with reducing the greenhouse gas emissions that are embodied in building new and extremely long infrastructure corridors. Western Spirit made at least one major routing mistake by impacting the wintering and migration area for the Sandhill cranes, and SunZia is currently proposing to compound this mistake by co-locating their lines adjacent to and above the Western Spirit lines at the Rio Grande crossing, thus creating a much more complex and vertically arranged conductor and tower barrier to bird movement along that river.

SunZia chose not to consider the route alternatives proposed by the Lower San Pedro Watershed Alliance and other commenters during the scoping period for the current EIS process. The BLM allowed SunZia to restrict the range of alternatives to those that favored SunZia's financial interests. That was their choice, so we have a very limited range of options to choose from in the latest draft EIS.

SunZia says they will simply revert to the conditions specified in their 2016 federal permit if their current requests for amendments are denied. So be it. Their new amendments obviously increase adverse ecological impacts and pave the way for Pattern Energy to establish a vertical monopoly on the most impactful line being proposed in the desert Southwest. That simply is not acceptable.

Will SunZia get its state permits and will Pattern purchase the first SunZia line if the new amendments are denied at the federal level? I don't know, but I doubt it. I do know it is *irresponsible* to enable this project proposal to continue down the track toward climate change mal-adaptation.

Please advocate for the No Action alternative in the federal EIS. Don't be distracted by power politics and \$200 million spent by SunZia on a fatally flawed design concept. Do the right thing.

Please insist on public evidentiary hearings for the state permits that SunZia needs for their requested amendments in Arizona and New Mexico.

Our major migratory avian flyways and remote wildlife corridors are at stake. Don't kill them with a thousand cuts and SunZia's gratuitous industrial-scale gash.

Our distributed renewable energy systems are at stake. Don't allow a private corporation to dominate Arizona's transmission capacity by monopolizing a long-distance supply chain that they would own on our state and federal lands.