Cascabel Working Group
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Cascabel Working Group response to the Draft Environmental Impact Statement for the proposed SunZia Southwest Transmission Project, with Emphasis on Subroutes 4A and 4B

By David Omick

--Section 2.3.2.3
Subroutes 4A and 4B follow fewer miles of existing utility corridors (22 and 28 miles respectively) than do any other Route Group 4 alternatives.

--Section 2.3.3.3
Demand side management is conceived in unrealistically narrow terms and given inadequate analysis and emphasis. It is widely recognized in the energy field that conservation is the nation's greatest source of untapped energy. Furthermore, conservation has no adverse environmental impacts. This section should be expanded.

Distributed Generation is also given inadequate analysis and emphasis. Its potential in the abundantly sunny load centers the Project proposes to serve is huge. Distributed generation, combined with energy conservation, efficiency advances, microgrid technology and transmission control technology would eliminate the need for the Project. This section should be rewritten and expanded.

--Section 2.4.10.1
Link C170 traverses the Galiuro Mountains, in a remote, currently roadless area with wilderness characteristics. This Section notes that in steep or rugged terrain, two separate access roads may be required, further degrading the wilderness characteristics of this area and potentially causing greater erosion.

--Section 2.4.10.7
Given the size of staging areas (200 x 600 feet in area, spaced every 18,000'), in steep, rugged and relatively pristine mountain areas such as Link C170 traverses, they need to be identified in the DEIS, not afterward in the POD.

--Section 2.4.11.3
No indication is given as to who is responsible for covering the costs of decommissioning. Given rapidly advancing electrical technology, the Project could well be obsolete far earlier than its useful 50 year life. Information about financial, administrative and legal responsibility for decommissioning should therefore be specific and detailed.

--Table 2-11
Mitigation Measure 6 states: "To minimize disturbance to sensitive habitats or resources, access roads required for operations purposes would be gated or otherwise blocked from public access." As highlighted in numerous scoping comments, gates and other methods used to block roads are typically ineffective. Is well established that OHV users frequently find ways to circumvent gates and other attempts to block back-country roads. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49.

Additionally, a road linking the east and west sides of the Galiuro Mountain complex on Link C170 will be highly attractive to OHV and other back-country users. Given the high potential for unauthorized OHV travel on SunZia service roads, Mitigation Measure 6 is grossly inadequate and should specify in detail how unauthorized road use will be prevented, what the frequency of monitoring will be for such measures and who will responsible for such monitoring.

--Table 2.15
Visual Resources makes no mention of visual impacts to backcountry users along much of Subroute 4B, including the Santa Theresa Wilderness, Aravaipa Wilderness, Galiuro Wilderness and portions of the Coronado National Forest.

Biological Resources does not list desert bighorn sheep, a high profile species in the Galiuro/Aravaipa portion of Link C170 which may be adversely affected by the Project.

--Section 3.6.5.2
No mention is made of fact that the San Pedro Valley is one of the major migratory flyways in the American West. This should be recognized and its economic importance emphasized. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 49-71.

--Section 3.9.1.2
See next section.

--Section 3.9.3.3
Scenic quality is highly subjective. Based on the selected classification method, most viewers would rate Link C170, particularly on the east side of the Galiuro

Mountains, as Class A scenery, not class B. Visually, much of Link C170 does not have merely "some diversity and visual interest." It is, by any standards, spectacular, particularly considering the expanse of natural landscape, largely free of development. The Class B rating should be re-evaluated.

Likewise, most viewers would assign a Class A rating to the San Pedro Valley, particularly when looking east toward the Galiuro Mountains in the area where Subroute 4B crosses the San Pedro. The Class B rating should be re-evaluated.

--Section 3.10.1.2
Under "Recreation" no mention is made of hunting, a major recreational use along much of Subroute 4B, especially Link C170. Hunting is not confined to "federal, state, and local recreational trails and designated OHV areas." Hunting should be added to this section and factored into analysis of view sheds, economic impacts, traditional land uses, etc.

--Section 3.10.3.3
Given the vast, natural landscapes free from development (a no more biased phrase than "undeveloped" or "vacant"), crossed by Subroutes 4A and B, this section fails to reflect the importance throughout that region of hunting, backpacking and other outdoor recreational opportunities or their economic importance. Whether the economic benefit occurs within or outside of the study area is irrelevant so long as the benefit is a result of outdoor recreational opportunities available within the study area. This section should be expanded to reflect this.

--Section 3.10.5.1
Throughout this section and specifically as regards Subroute 4A and 4B, the terms "vacant" and "vacant undeveloped" implies a negative bias toward such lands. The diverse non-human species occupying these lands would not consider them as such. Nor do the rural residents living in these areas. Such characterization represents a strong urban bias. Why are these lands not considered "natural lands" or similar? This bias puts into question the impartiality of the DEIS authors and, as it occurs throughout the DEIS, erodes the legitimacy of the entire document. At a minimum, this bias should be corrected.

--Section 3.10.5.3
As regards Subroutes 4A and 4B, it is confusing that only recreational opportunities on BLM lands are referred to. Why not recreational opportunities on the other extensive federal and state lands crossed by or in proximity to these routes?

--Section 3.10.5.8
A section on planned land use implies that this is an important consideration. Why then is there not a similar section recognizing the equally important traditional land use?

--Section 3.12.4
It is not clear what proximity to the Project is required for consideration of lands with wilderness characteristics. Must such lands be actually crossed by the project? Within the study area? Other? This section requires more detailed explanation.

--Section 3.12.4.3
This section is too dismissive of the wilderness characteristics of lands crossed by Link C170 in the area of the Galiuro Mountain divide. These lands have important wilderness characteristics and are in close proximity to designated Wilderness Areas. Closing and decommissioning several primitive roads in this area would preserve the wilderness characteristics of this portion of Link C170. See Section 4.12.3.1 comments below.

--Section 3.13.9.3
This section focuses on population centers while ignoring the vast landscapes crossed by Subroutes 4A and 4B which provide economic livelihood for ranchers, hunting guides, etc.

--Table 3-74
Should include electric field data to allow comparison with electric fields in Table 3-75.

--Section 4.2.2.5
Mitigation Measures: No mention is made of how speed limitations will be enforced. Merely posting speed limits is not an effective method of enforcement. It is not reasonable to assume that speed limits will be observed without enforcement, thus enforcement provisions should be explained. Or, this measure should be deleted as a mitigation measure.

--Section 4.6.2.2
Large Mammals: This section includes the statement, “Development of new access roads required for the Project may have indirect impacts resulting from increased recreational access in these areas.” Is this an acknowledgement that SE 6 (gates or other road blockage methods) is not likely to be effective? This is particularly important on the Galiuro Mountain divide area of Link C170 as this will be under heavy OHV pressure as noted elsewhere in these comments. Clarification is needed here.

--Section 4.6.4.3
Noxious and Invasive Weeds: This section should acknowledge the high potential for noxious and invasive weed introduction along service roads, particularly in the Galiuro Mountain area crossed by Link C170, as these roads will likely receive heavy OHV pressure, despite application of SE 6.

--Section 4.6.4.4
Large Mammals: Regarding prevention of collision risk to large mammals by implementation of speed limits, see Section 4.2.2.5 above.

Fish: Impacts to fish species in Aravaipa Creek due to increased soil erosion caused by heavy OHV use of service roads along Link C170 should be analyzed. As noted earlier, this is particularly the case where Link C170 crosses the Galiuro Mountain divide area. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 74-77.

--Section 4.6.4.5
Desert tortoise: "The total level of road use would determine the overall level of impact on Desert Tortoises." Again, given the likelihood of high OHV pressure on post construction service roads, impact to Desert Tortoises may be high. Experience has shown that SE 6 is largely ineffective. This issue should receive further analysis. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49.

Arizona Striped Whiptail: "Presence of a biological monitor…may minimize direct impacts to lizards…" The efficacy of this method appears highly indefinite and needs clarification so as to gauge its effectiveness.

Native fish species in Aravaipa Creek: See Section 4.6.4.4 comment above.

--Section 4.6.4.6
Aravaipa Wilderness: The assertion that, "There will be no direct impacts on the Aravaipa Wilderness, and potential indirect impacts primarily to surface waters would be mitigated…" reveals an inadequate understanding of probable back country pressures throughout drainages south of Aravaipa Creek due to increased OHV traffic on Project service roads and on other primitive roads accessed by service roads. These effects primarily include increased erosion. See Table 2-11 comments and 4.6.4.4 comments above.

--Section 4.6.4.7
Pronghorn Population in the Sulphur Springs Valley: Fire is increasingly used for range improvement. The logistical barrier and safety hazard presented by the Project with respect to controlled burns may therefore become significant. The limitation of an important, natural method of range improvement deserves further examination.

Erosion control, vegetation preservation, noxious weed management and access control are not adequately addressed by standard or selective mitigation methods. See Table 2-11 comments above. Also see DEIS Contribution For

Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49).

Wildlife Linkages: The Galiuro Mountain divide serves as an important wildlife linkage between the Galiuro and Aravaipa Wilderness Areas. This is particularly true for desert bighorn sheep populations in Redfield Canyon and Aravaipa Canyon. Increased back country OHV use particularly due to the previously noted ineffectiveness of SE6, will likely result in degradation of this linkage where it is crossed by Link C170.

--Section 4.6.5.4
Desert bighorn sheep: This section does not address the potential impacts of Link C170 on desert bighorn sheep in the Galiuro Mountain area, nor does it offer mitigation measures specifically addressing these impacts. Although this subspecies of desert bighorn sheep is not listed as threatened or endangered, it is nonetheless a high profile species which may be adversely affected by Link C170. Given the importance of this species, potential impacts and mitigation measures should therefore be addressed. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 87.

Native fish species in Aravaipa Creek: See Section 4.6.4.4 comments above.

Pronghorn: See Section 4.6.4.7 comments above.

Arizona Striped Whiptail: See Section 4.6.4.5 comments above.

--Section 4.9.3.3
See Section 3.9.3.3 comments above.
Subroute 4A, Recreation: This section neglects to mention recreational users including hunters, hikers and horse packers in the surrounding Santa Theresa, Aravaipa and Galiuro Wilderness Areas and the Coronado National Forest. This should be corrected. Visual impacts for recreational users will be high in some parts of the Aravaipa Wilderness and Coronado National Forest in the vicinity of Link C170.

--Section 4.10.5.3
Subroute 4A: “There are no moderate, high-moderate, or high impacts for existing or future land uses.” This statement neglects the considerable impacts to backcountry users along route 4A, especially along Link C170. (See Section 4.9.3.3 comments above.) Outdoor recreation constitutes a land use and should be addressed in this section.

--Section 4.10.5.4
"Based on results of the preceding analysis, significant impacts are not expected…" See comments regarding Section 2.3.2.3 through Section 4.10.5.4, inclusive.

--Section 4.12.3.1
With regard to wilderness areas and lands with wilderness characteristics, a 3 mile view metric is insufficient. It fails to address the greater than 3 mile visibility of service roads and below power line vegetation cuts. Also, noise pollution during construction and maintenance activities, particularly helicopter caused, is not addressed. Also not addressed are OHV impacts to Aravaipa Wilderness due to unauthorized access via Project service roads.

Furthermore, this section fails to address the effect on the adjacent Araviapa and Galiuro Wilderness areas. Part of the function of wilderness areas is to preserve natural habitat. Wildlife species in particular are not bound by wilderness boundaries. Project construction impacts, unauthorized service road use and noise pollution on Link C170 at the Galiuro Mountain crossing will negatively impact this ridge-top wildlife corridor.

--Section 4.12.3.3
Subroute 4A: The assumption that a major powerline corridor located less than 3 miles from a wilderness boundary is highly subjective. Most wilderness visitors would object to such close proximity to a wilderness area. The implicit suggestion that they could simply go elsewhere within the wilderness reflects yet another bias on the part of the DEIS authors that further undermines the legitimacy of the DEIS.

Subroute 4B: See Section 4.12.3.1 comments above.

--Section 4.12.5.3
See Section 4.12.3.1 and 4.12.3.3 comments above.

--Section 4.13.4.3
This section fails to address the economic impacts from recreation to the lands crossed by Subroutes 4A and 4B. Recreational visitors to Aravaipa Canyon, the northern Galiuro Mountains and Klondyke frequently choose to visit this area because of its untrammeled remoteness. Such areas and the recreational opportunities they offer are being steadily eroded. The Project would contribute to this erosion by bisecting the second largest landscape remaining in Arizona that is still essentially free of development. This section should thus include analysis of economic impacts to recreational land use as a result of the Project.

Route Group 4: Fails to mention recreation-related job losses caused by Project Subroutes 4A and 4B. Recreational land users are attracted to the northern Sulphur Springs Valley and Aravaipa Creek watershed in large part because this

landscape retains its wild, largely natural characteristics and is essentially free from development. By bisecting this area, Subroutes 4A and 4B would reduce the appeal of this landscape, thus incurring economic impacts. If these impacts cannot be quantified, they should at least be acknowledged.

--Section 4.13.4.5
"The Project would not substantially change the use of recreation areas or trails, and the number or type of recreation users would not be likely to change." As regards Subroutes 4A and 4B, see Section 4.13.4.5 comments above.

--Section 4.14
This section fails to acknowledge the fact that the negative impacts (aesthetic, economic, etc.) are borne disproportionately by rural populations, whereas the energy delivered by the Project primarily benefits large population centers and Project investors. Furthermore, aside from temporary construction jobs, rural populations receive no economic benefit from the Project. This is a gross environmental (and economic) injustice that is not addressed in the DEIS.

--Section 4.15.2.1
Audible noise: As regards Link C170, see Section 4.12.3.1 comments above.

--Section 4.17
Cumulative Effects Analysis: This section fails to acknowledge or analyze the cumulative effects of increased population in the Project Study Area. The Project, by increasing the electrical transfer capacity to major population centers in the southwest, particularly the Phoenix area, serves to encourage population increases in those areas. Thus, the Project encourages increased electricity consumption and generation. Much of this generation will be fossil fueled, as backup is needed for renewable energy, especially wind energy. Furthermore, the wind generation areas the Project proposes to link to are seasonally out of phase with demand in the energy markets it proposes to connect to. This will encourage significant fossil fuel generated electricity on SunZia lines. See http://cascabelworkinggroup.org/Rjobs13.html and http://cascabelworkinggroup.org/Rjobs14.html

--Section 4.17.3.2
This section fails to analyze the cumulative impacts of two future projects likely to parallel significant portions of Subroute 4A or 4B, particularly Link C170. NEPA approval of Subroute 4A or 4B, coupled with the construction of a major infrastructure project, effectively constitutes the opening of a new utility corridor. As such, approval of this route is likely to substantially increase the likelihood of its use for future infrastructure projects.

Given the dramatically increased production of natural gas, demand for new pipelines is likely. The presence of threatened and endangered fish species in Hot Springs Canyon in close proximity to the El Paso Gas Co. pipeline suggests

that route will not be suitable for future pipelines. Subroute 4A or 4B would provide a likely alternate for such projects.

Given complications with Case 23, Tucson Electric Power's conceptual Tortolita to Winchester 500kV transmission line could become a Tortolita to Willow 500 kV line following Subroute 4B.

The cumulative effects of such projects include but are not limited to: habitat fragmentation, erosion and other effects on threatened and endangered species, including fish species in Aravaipa Creek, increased OHV use of service roads and increased disturbance to desert bighorn sheep populations.

All of these cumulative impacts should be analyzed for both of the above mentioned future projects.

--Section 4.17.4.2
Global Climate Change: See Section 2.3.3.3 comments and Section 14.7 comments above.

--Section 4.17.4.3
Soil Resources, Operation: As regards Link C170, see Table 2-11 comments, Section 4.6.4.4 comments and Section 4.6.4.7 comments above.

--Section 4.17.4.6
Biological Resources, Conclusion: "…cumulative impacts would be reduced in most cases when linear utilities, including the proposed Project, are collocated." This is further argues against Subroutes 4A and 4B, which would involve the longest sections of new utility corridor among the Route Group 4 alternatives.

Also, as regards Subroutes 4A and 4B, see Section 4.17.3.2 comments above. Future infrastructure projects are likely to use Subroutes 4A or 4B subsequent to construction of the Project along either of these routes. Cumulative impacts to visual resources are therefore likely to be high.

--Section 4.17.4.7
Wildland Fire: As regards Subroutes 4A and 4B, see section 4.6.4.7 comments above.

--Section 4.17.4.9
Visual Resources: As regards Subroutes 4A and 4B, see Section 4.17.3.2 comments above. Future infrastructure projects are likely to use Subroutes 4A or 4B subsequent to construction of the Project along either of these routes. Cumulative impacts to visual resources is consequently likely to be high. This section should be expanded to reflect this.

--Section 4.17.4.10
Land Use and Recreation Resources: Despite the title of this section, almost no reference is made to cumulative effects as regards recreation resources. It is highly probable that future infrastructure projects would use Subroute 4A or 4B subsequent to Project completion. This would increase the cumulative effects of the Project on Recreational use, particularly along Link C170. This section should be expanded to reflect this.

--Section 4.17.4.12
Wilderness…, Construction and Operation: **"**Operation of the Project would reduce the size of the inventory unit, as areas where the Project would cross would no longer be eligible for wilderness designation." Subroute 4B is 133 miles long, 111 miles of which constitute a new utility corridor. Much of the 111 miles of new corridor will bisect the second largest expanse of undeveloped landscape in Arizona and New Mexico.

Within that area are 3 federally designated Wilderness Areas (Santa Theresa, Aravaipa and Galiuro). Adjacent to these Wilderness Areas are lands having wilderness characteristics. Among the most outstanding is the Winchester/Galiuro/Aravaipa complex which constitutes one of the longest undeveloped upland reaches in Arizona, stretching more than 100 miles in a south-southeast to north-northwest orientation. Link C170 would bisect that unbroken complex, fragmenting yet another of Arizona's diminishing wild lands.

--Section 4.17.4.14
Environmental Justice Conditions: Negative impacts of future infrastructure projects expected to use Subroute 4A or 4B subsequent to Project completion will be borne primarily by area residents. These impacts may include, but are not limited to, degradation of visual, recreational and economic opportunities. See Section 4.14 comments above.

Operation: Further evidence of an urban bias is evidenced by the statement, "For properties that experience degradation of scenic views, devaluation could take place." No mention is made of mitigation for property devaluation caused by the proposed Project and other infrastructure projects that can be expected to follow subsequent to the establishment of a new utility corridor along Subroutes 4A or 4B.