

Comment Set G0014, cont.
California Botanical Habitat

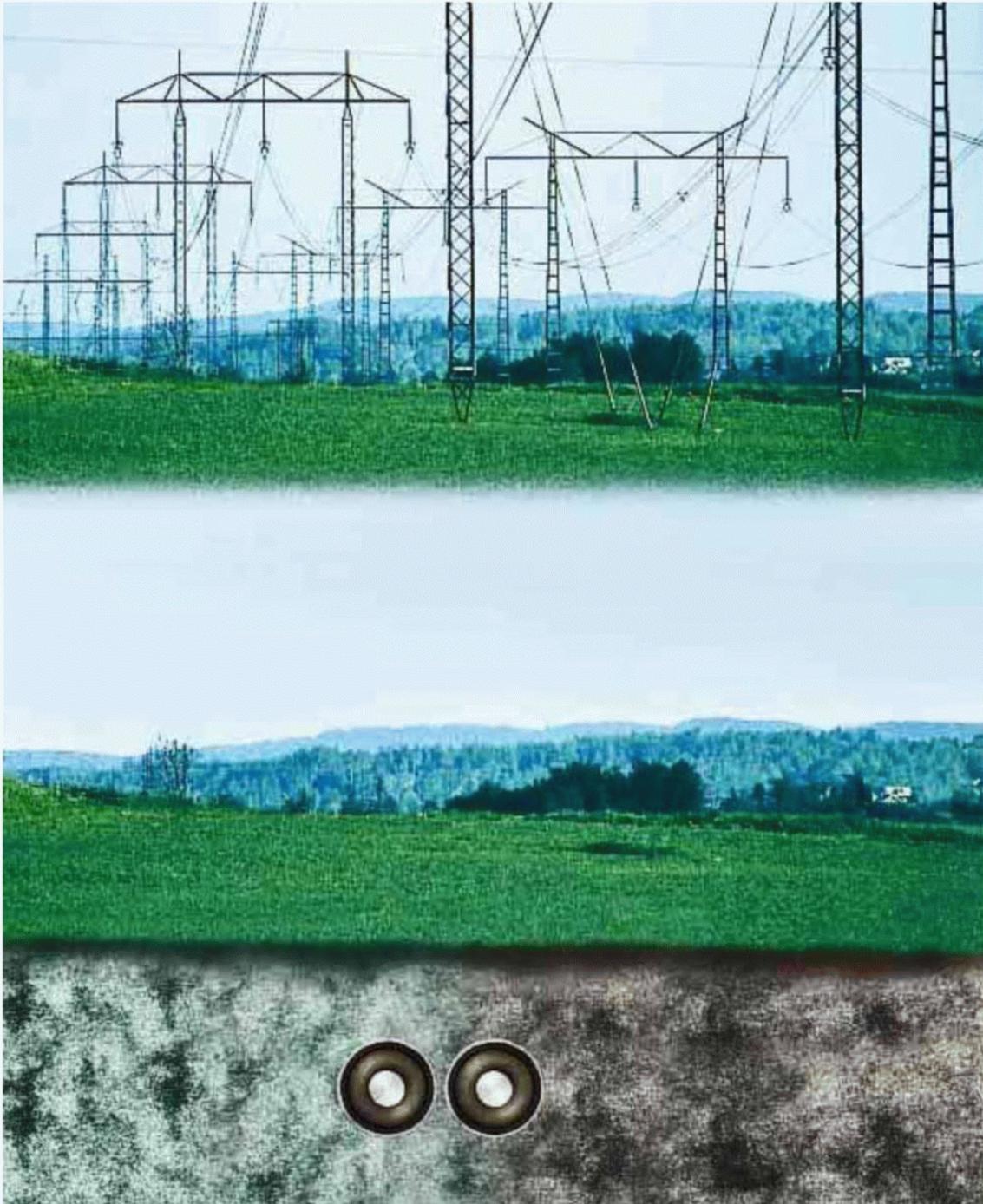
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G0014-3 cont.

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G0014-4

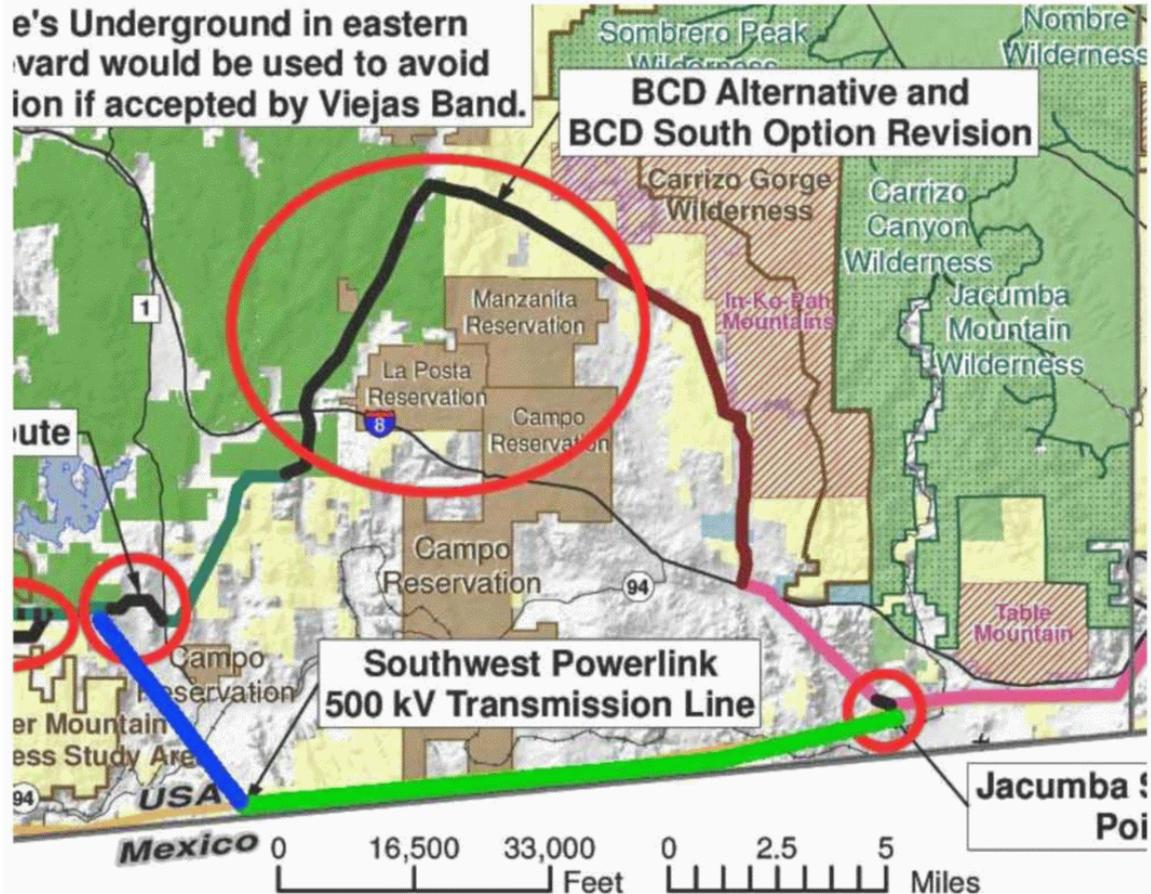
Two underground power lines can carry 1,000 to 10,000 megawatts at 300 kV to 800 kV DC, which is up to 10 times the capacity of the Sunrise Powerlink, all in one small trench, typically 5 feet deep & 1 foot wide, that can be rapidly installed, at lower cost.

Southeastern communities

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G0014-4 cont.

- 1) 20 mile AC underground bypass route **GREEN** line plus **BLUE** line. Provides a way to completely avoid: 4 Indian Reservations, 6 Communities, 3 Dedicated Wilderness Reserves, 2 Scenic Highways, and 3 Power Line Reroutes, all listed below.
- 2) Or: 5 mile AC underground **BLUE** line, plus a 15 mile, 500 kV overhead **GREEN** line. Not preferable, but an extremely low budget alternative to massive environmental damages. Still knocking-off 15 miles from the 35 mile loop, without significant fire risks, since the border region to Campo is extremely damaged, due to the Southwest Powerlink.

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Improvement A, Southeast County Bypass

G0014-4 cont.

- 1) Provides for a 20 mile, 500 kV AC underground bypass route GREEN line plus BLUE line, to bypass 4 Reservations, 6 Communities, 3 Dedicated Wilderness Parks, 2 Scenic Highways, and 3 Power Line Reroutes.**
- 2) Or a 5 mile AC underground BLUE line, plus an overhead 500 kV segment, GREEN line, between the Jacumba and past Campo and the Cameron Reroute.**

1. Bypass: Jacumba SWPL Breakaway Point Reroute
2. Bypass: BCD Alternative and BCD South Option Revision
3. Bypass: Cameron Reroute
4. Bypass: Scenic Old Highway 80
5. Bypass: Bankhead Springs Wilderness Area
6. Bypass: BLM, McCain Valley
7. Bypass: Cleveland National Forest
8. Bypass: Running along and 2 crossings of Interstate 8
9. Bypass: Homes and ranches west of Jacumba
10. Bypass: Homes, ranches and businesses in Bankhead Springs
11. Bypass: Homes, ranches and businesses east of Boulevard
12. Bypass: Buckman Springs Road and valley
13. Bypass: Lake Morena Village area
14. Bypass: Campo north area

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15. Bypass: Surrounding Campo Reservation (going around east, north & west)
16. Bypass: Surrounding Manzanita Reservation
17. Bypass: Surrounding La Posta Reservation
18. Bypass: Surrounding Ewiiapaayp Reservation (not on CPUC map, North of Manzanita Reservation)
19. Eliminate: 35 miles of 170 foot tall pylons on mountains & air traffic hazards
20. Install: 20 miles of underground AC power lines, from before the Jacumba SWPL Breakaway Point Reroute, to after the Cameron Reroute, (see GREEN line + BLUE line below). Saves 15 miles, is fire safe and will cost far less than the environmental damages proposed by going through 6 communities, 3 parks and by surrounding 4 Indian Reservations.
21. Alternative: Install 5 miles of underground 500 kV lines plus a 15 mile overhead segment, extremely low cost, short route, along the border already is a cleared low fire potential area, and still saves 15 miles distance from the 35 mile northern loop, along with the massive environmental damages of going through 3 parks and 6 communities.

G0014-4 cont.

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G0014-5

Putting power lines through here would trash one of the most extraordinary wilderness landscapes in all of California. I am amazed that the BLM would ever consider forsaking this amazing valley at any price, and yet it can be saved at no additional cost. The understanding is simply refused, even though all the information needed is available. Truly amazing!!! Opposition to nondestructive underground power lines has been consistent, with no functional regard for environmental protection, the economic damages caused, the law, medical or fire safety, only a malicious interest in perpetuating damages.

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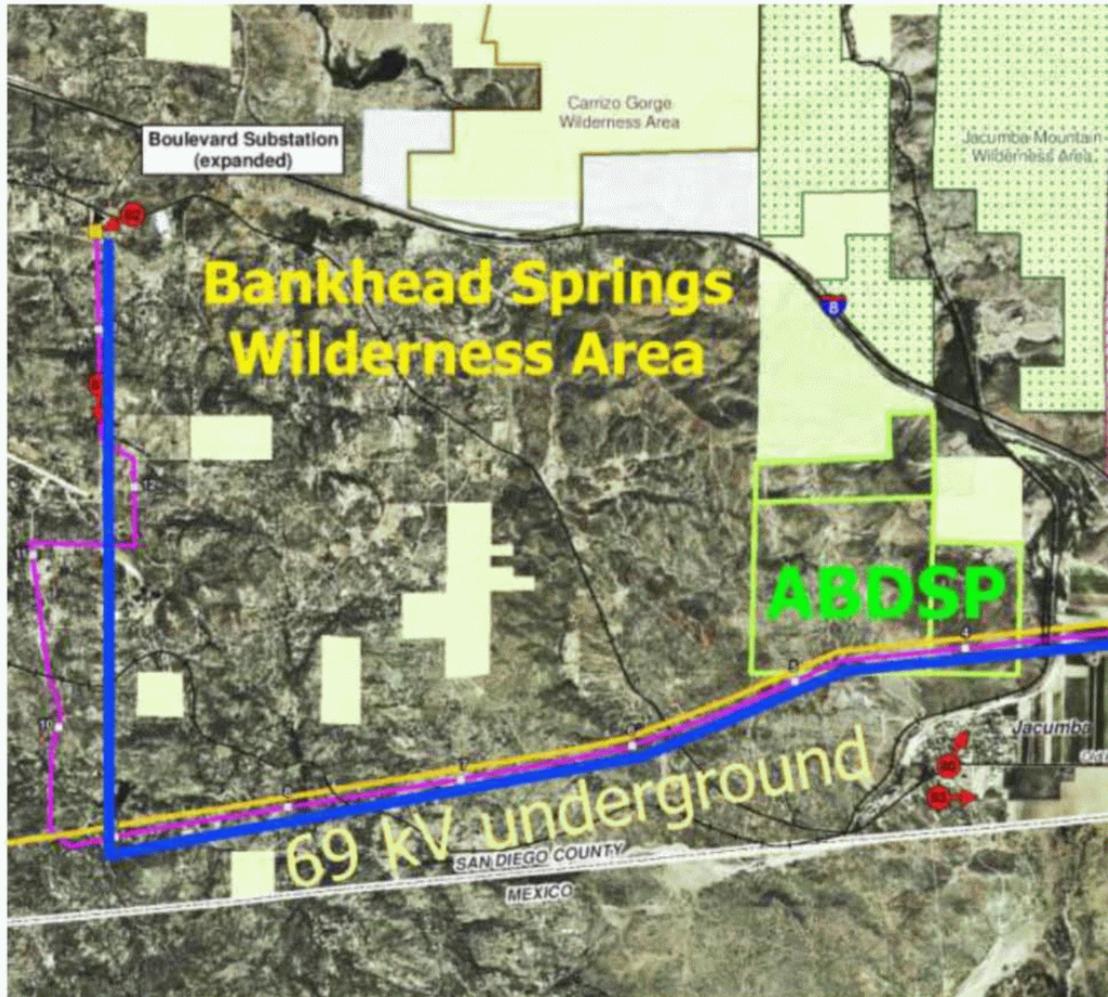


G0014-5 cont.

Images of this wilderness region have been provided, with exceptional views, a rich paleoanthropological history, geologic monuments with numerous rare & endangered species which has been assembled over many decades as a gift to be cared for by humanity; but instead it's amazing mountain gardens with expansive views are targeted for bulldozing 15 new roads to mount huge 170 foot tall pylons on top of its mountains for hot sagging aluminum cables, that make the park a serious medical risk, uninhabitable for camping, research or any other purpose. There's no way any of this could be replaced, not even for \$3 million per acre, nor would the most skilled botanists be able to restore damages at less than \$75 per square foot, nor in less than half a century. The bizarre fact is that nondamaging underground AC or DC alternatives cost less than the old 500 kV overhead structures, but are adamantly opposed by SDG&E. Unbelievable!!!!!! The destructive ambitions appear intentional.

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G0014-6

- 1) Jacumba to Boulevard detail, 69 kV AC underground route (**BLUE line**), 13 miles following the existing unpaved roads shown in **PURPLE**.
- 2) Alternatively, end the above ground segment at the east side of ABDSP (3.6 miles), placing only 9.5 miles underground to the Boulevard Substation (**BLUE line**).

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Improvement B, SE County 69kV underground

G0014-6 cont.

Provides for a 9.5 mile or a 13 mile 69 kV underground segment between the Jacumba and Boulevard substations. BYPASS means to go underground, along existing unpaved roads or SDG&E right-of-ways.

1. Bypass: Anza Borrego Desert State Park north of Jacumba
2. Bypass: West of Jacumba, Homes, ranches and businesses
3. Bypass: Bankhead Springs Wilderness Area, homes, ranches & businesses
4. Bypass: Jewel Valley, homes and ranches
5. Bypass: Jewel Valley Airport's landing pattern
6. Bypass: Boulevard CA, homes, ranches and businesses
7. Eliminate: 13 miles and 110 steel towers every 650 feet, 100 foot tall, on mountains with high power cables which are local air traffic hazards
8. Install: 13 miles of 69 kV underground AC power lines, from Jacumba to Boulevard power station following existing unpaved roads and SDG&E Right-of-Way. This should be a little shorter than the overhead route shown in purple near the Jewel Valley Airport and notably safer.
9. Alternatively, install 9.5 miles of 69 kV underground AC power lines, from the eastern boundary of the Anza Borrego Desert State Park designated property, following the same path to the Boulevard Substation. The 1st 3.6 mile segment from the Jacumba substation to the ABDSP property being above ground, utilizing 29 steel poles (spaced every 650 feet).

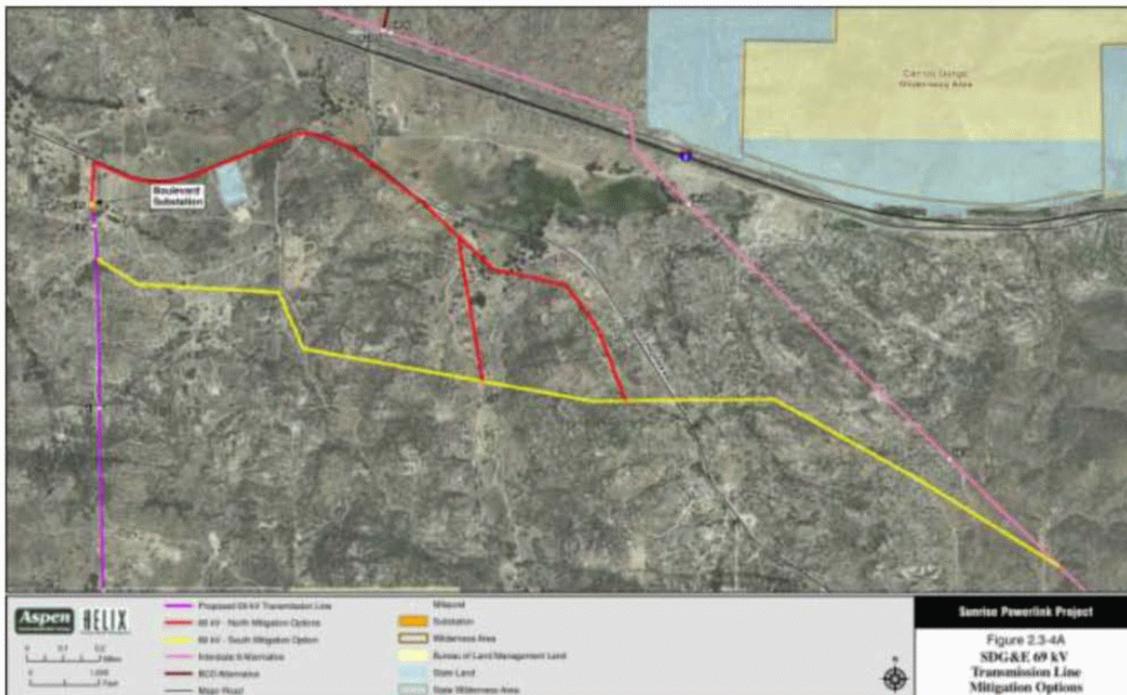
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Note: Note: Note: 69 kV Damages

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Moving the 69 kV further north along any of the 3 lines, PURPLE, RED or YELLOW (as shown in figure 2.4-4A, SDG&E 69 kV Transmission Line Mitigation Options, provided herein) would have severe damaging impacts on the region, including numerous homes, ranches, businesses, the scenic "Old Highway 80", which is traveled daily by visitors particularly on weekends, and the Bankhead Springs Wilderness Area, which includes rare and endangered species, paleoanthropological resources, research and recreational facilities.



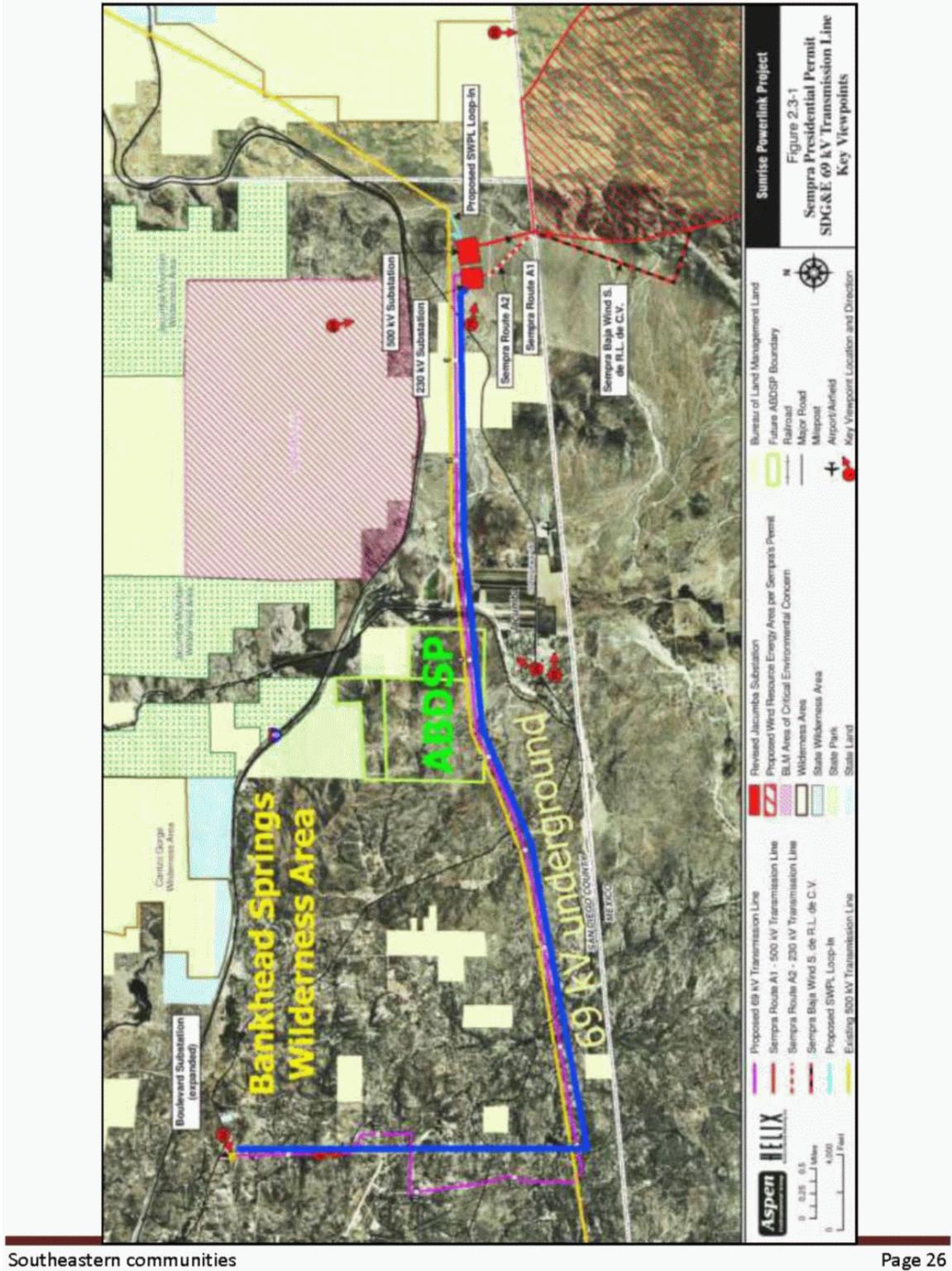
Avoid these extremely damaging 69 kV northern access route alternatives above.

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Improvement C, Wind Farm Viewshed, geologic and botanical damage reductions

G0014-7

Given the extreme visibility of the huge 500 turbine wind farm, which can be seen from Jacumba and Bankhead Springs due to its higher elevation, in an area which is one of San Diego County's best scenic areas with a great scenic highway "Old Highway 80" which was a destination for travelers since the 1920's, we have 2 requests regarding the wind farm: 1) put the 3 miles of 500 kV power lines underground, and 2) don't get a bunch of dumb bulldozer jockeys to trash the landscape first, it serves no purpose other than environmental abuse. Minimize all excavation impacts with a careful plan, observe how much space is absolutely required for each truck movement, and then replant all the construction areas with native plants utilizing a drip irrigation system and botanists familiar with full habitat restoration efforts based on proven experience, not his sales pitch. Otherwise you will be creating an environmental nightmare, and the cost to minimize impacts is slight. If self regulation is impossible, get a botanist referral from an environmental group like the California Native Plant Society.

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Wind Project Construction and Grading (CPUC document excerpt):

Each turbine pad would occupy approximately a 40-foot by 40-foot site (or approximately 1,600 square feet), including a concrete pad and drain rock surround, for a total of approximately 20 acres for the 500 wind turbines. During the construction period, relatively flat temporary pads would be constructed at each turbine site to provide a base for construction equipment, including the large crane needed to erect the tower and assemble the turbine. Installation of tower foundations would involve excavations to depths up to 40 feet below grade, with the diameters of excavations being roughly the same as the diameter of the tower base, approximately 15 to 20 feet depending on turbine model selected. Approximately 160 cubic yards of concrete, requiring an average of 6,000 gallons of water, would be required for each tower foundation (BLM, 2005). After backfilling of foundation voids, remaining excavated materials would need to be disposed of off-site or redistributed on-site. Contour grading would be conducted at each turbine pad as needed to match construction grade with the existing grade. The temporary area of disturbance for new turbines is estimated to be approximately one to three acres per turbine, or approximately 1,000 to 1,250 acres (assuming 2 to 3 MW turbines) of which approximately 18.5 acres would be permanent disturbance. (Recirculated draft for Sempra, page 2-16, July 2008) http://www.cpuc.ca.gov/Environment/info/asp/sunrise/rdeir/rdeir/2_sempre_mex_wind.pdf

G0014-7 cont.

General Electric Wind Turbine Data:

3.6 MW Series Wind Turbine

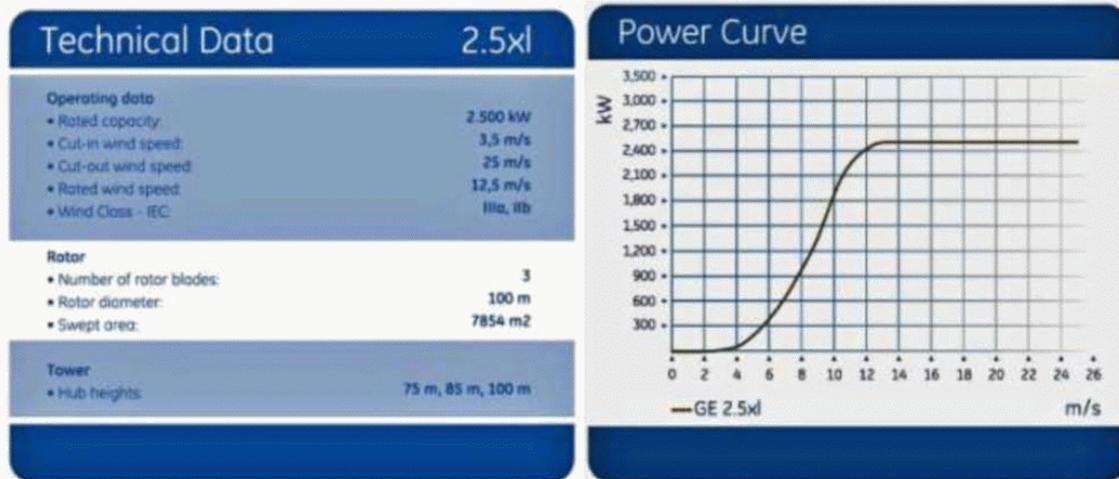


Proven Technology with Offshore Expertise

A larger version of our proven 1.5 MW design, the 3.6 MW machine was specifically designed for high-speed wind sites. With a rotor diameter of 104 meters and a swept area of 8,495 square meters, the new wind turbine is ideal for offshore markets worldwide.

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G0014-7 cont.

http://www.ge-energy.com/prod_serv/products/wind_turbines/en/2xmw/index.htm

Warning, impossible turbine installation problem:

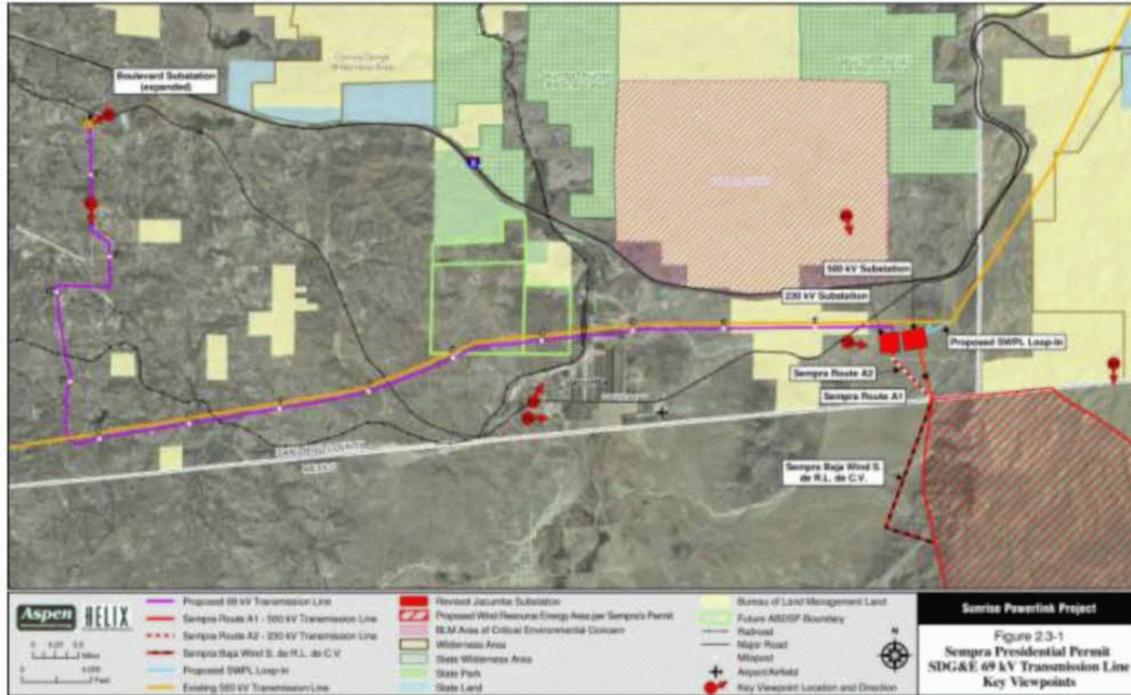
The above data is from General Electric's specifications for their 2.5 megawatt wind turbine, which shows the rotor blade diameter as 100 meters or 328 feet, with a maximum height of 492 feet. Now the CPUC's site construction data (shown above) says that a wind turbine the height of a 49 storey building with a 328 blade rotational diameter is going to be installed on a 40 foot by 40 foot site. Naturally, we would like to know how to accomplish that. Perhaps, we could put off the directional change, wind turbulence and energy loss issues with much less closely spaced turbines.

At 20 acres per turbine, 500 turbines would take 10,000 acres or 15.6 square miles, or an ridge line about 1 mile by 16 miles, depending on slope, and wind direction along with considerable on site testing at over 200 feet above ground.

NOTE: Placing the wind farm 10 miles further south, which is a remote and unpopulated region, as a condition to bringing power into the U.S. would benefit San Diego County, and cause no disadvantage to Mexico, particularly since this ridge extends well over 45 miles south of Jacumba. Also, Sempra would need to get the Mexican government to concur; otherwise there is no reason to allow power into California.

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G0014-7 cont.

Since the proposed wind farm would be highly visible from the north, from into Imperial County to Boulevard CA due to the higher elevation, consequently it should be considered as relevant to the review process, with provisions to insure the following:

- a) Underground all 3 or more miles of power lines from the wind farm to Jacumba.
- b) Carefully minimize all bulldozing and impacts at the turbine assembly site, with a site plan that is translated to solidly mounted steel posts on the ground (such as 7 foot steel T posts at \$3 each).
- c) Require that all construction site damages, excepting essential roads of minimum width (10 foot), be provided a full and complete native plant restoration effort that is fully sustainable without additional maintenance or irrigation.