



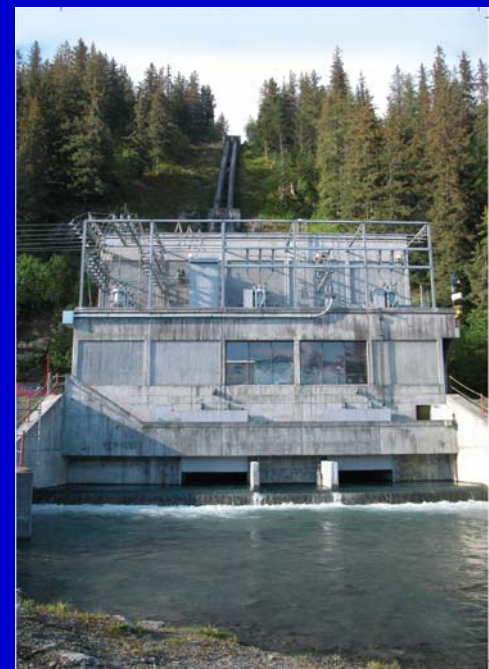
Briefing on the
**Colorado Coordinated Planning Group's
Long Range Transmission Planning Group**



Presented to the
**Colorado Clean Energy
Development Authority**

by
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Colorado Coordinated Planning Group (CCPG)



MISSION STATEMENT:

The CCPG is a joint, high voltage transmission system planning forum for the purpose of assuring a high degree of reliability in the planning, development, and operation of the high voltage transmission system in the Rocky Mountain Region.

The CCPG provides the technical forum required to complete reliability assessments, develop joint business opportunities, and accomplish coordinated planning, under the single-system planning concept in the Rocky Mountain Region of the Western Electricity Coordinating Council.

The Colorado Long Range Transmission Planning Study Group (CLRTPG) is a sub-set of the CCPG.

The CLRTPG is currently analyzing the Colorado and Eastern Wyoming high voltage transmission system for two time frames: 2013 and 2018.

The CLRTPG planning exercise is required pursuant to the 1991 Colorado-Ute bankruptcy agreement.

At present, these **three transmission scenarios** are being modeled for the years 2013 and 2018.

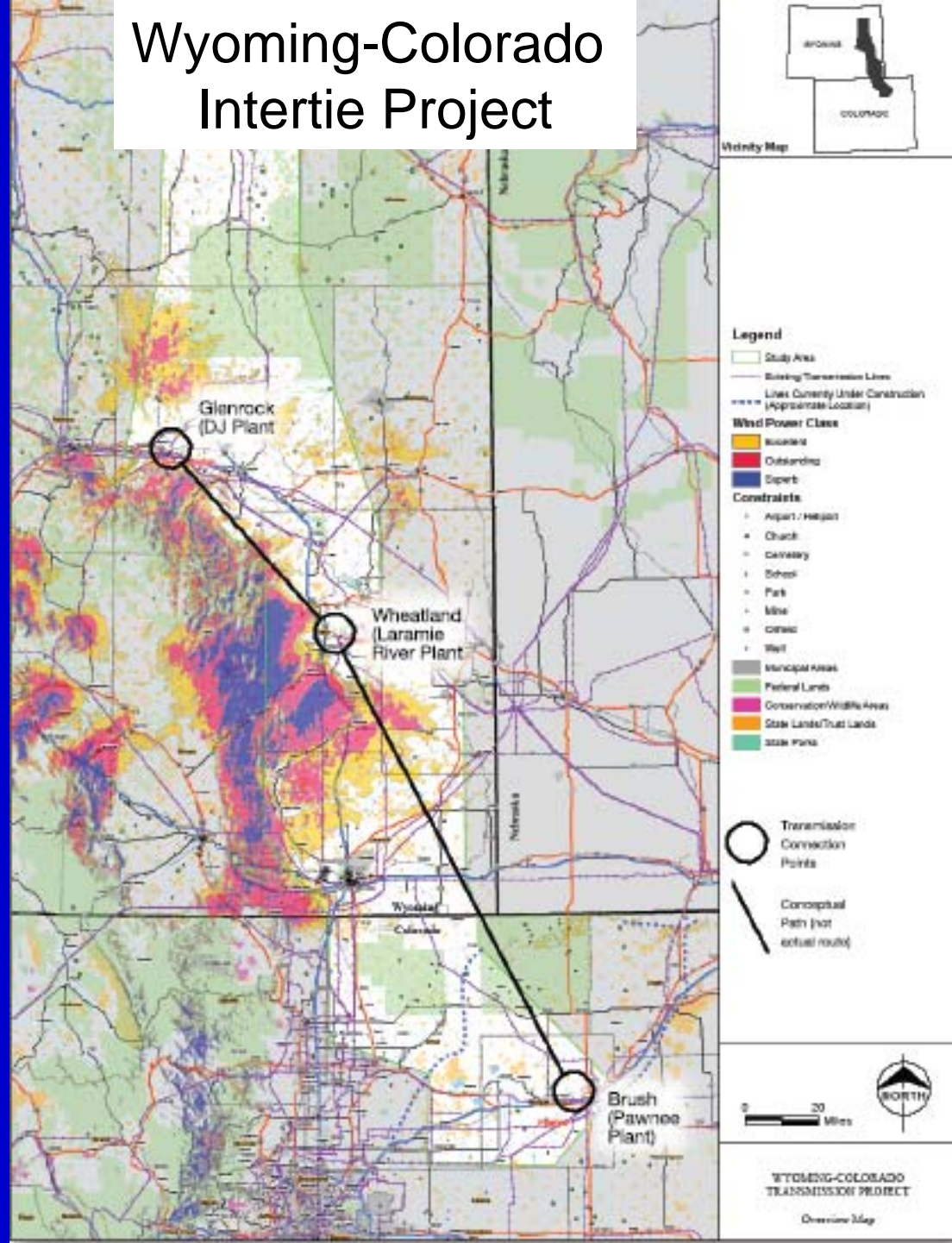
Other scenarios are being considered.

Scenarios:

1. Assume that the transmission system accommodates Colorado and Wyoming utilities' loads and resource plans. This includes the minimum requirements contained in Colorado's Renewable Portfolio Standard.
2. Assume that significant Wyoming generation resources are injected into the proposed Wyoming-Colorado Intertie Project.
3. Assume a Clean Energy scenario where 5% of the capacity in Colorado's Wind GDAs are developed, plus 2000 MW from Colorado's two Central Solar Power GDAs.
This would equal ~6,850 MW by 2018.
4. TBD - A Clean Energy Export scenario.

Scenario 2 assumes that significant Wyoming generation resources are injected into the proposed Wyoming-Colorado Intertie Project.

Wyoming-Colorado Intertie Project



For proposed Scenario 3 the CLRTPG is referencing data from the SB07-091 Report

The image shows the cover of a report titled "connecting colorado's renewable resources to the market". The title is written in a large, stylized font, with "connecting" and "renewable" in red, "colorado's" in white, and "resources to the market" in black. The background is a photograph of a utility pole with power lines against a blue sky. At the bottom of the cover, there is a row of six small images representing different renewable energy sources, each with a vertical label above it: WIND (a row of wind turbines), SOLAR (a solar panel array), HYDROELECTRIC (a dam), GEOTHERMAL (a geothermal power plant), BIOMASS (a pile of wood chips), and ETHANOL (a field of corn). To the left of these images, the text "Report of the Colorado Senate Bill 07-091 Renewable Resource Generation Development Areas Task Force" is printed in a smaller font.

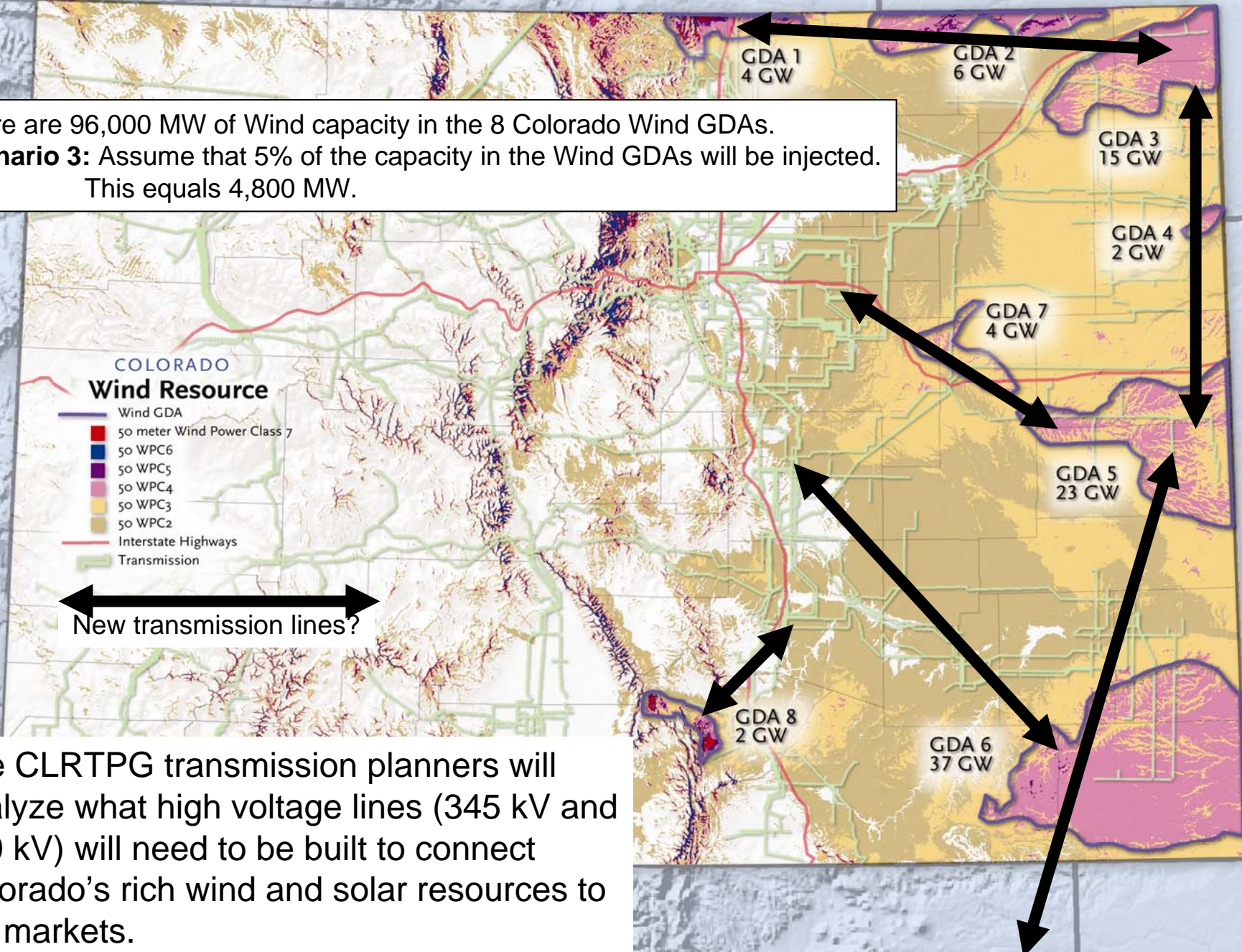
connecting colorado's
renewable resources to the market

Report of the
Colorado Senate Bill 07-091
Renewable Resource Generation
Development Areas
Task Force

WIND
SOLAR
HYDROELECTRIC
GEOTHERMAL
BIOMASS
ETHANOL

Scenario 3

There are 96,000 MW of Wind capacity in the 8 Colorado Wind GDAs.
Scenario 3: Assume that 5% of the capacity in the Wind GDAs will be injected.
This equals 4,800 MW.



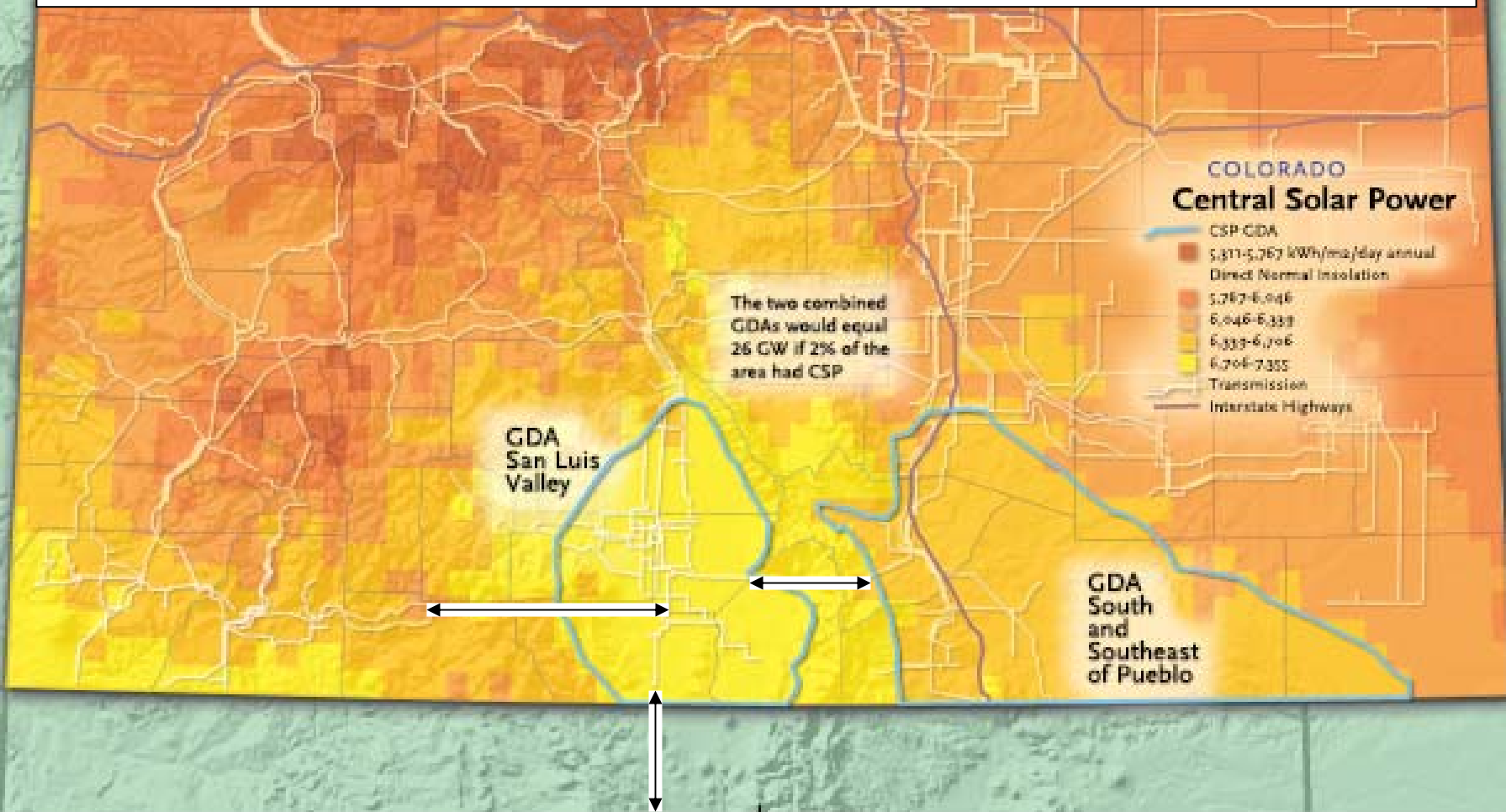
The CLRTPG transmission planners will analyze what high voltage lines (345 kV and 500 kV) will need to be built to connect Colorado's rich wind and solar resources to the markets.

The SB91 report identified 26,000 MW of CSP potential in Colorado's two Solar GDAs (assuming that CSP is put into service on 2% of the GDA land).

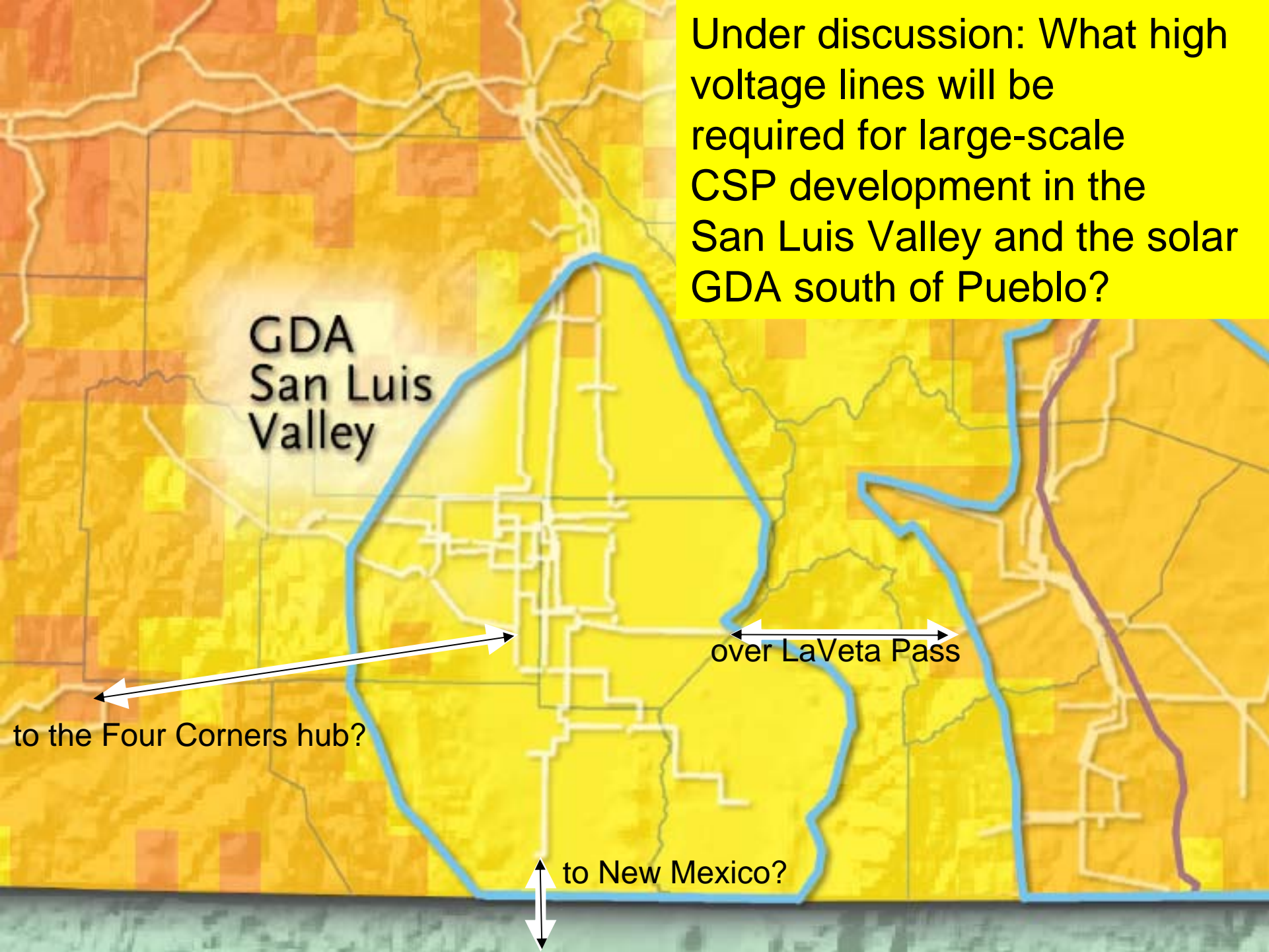
GEO request as part of Scenario 3):

Assume that 1,000 MW is injected from the San Luis Valley GDA and 1000 MW is injected from the GDA located south of Pueblo.

To be answered: what transmission options would stem from this scenario?



Under discussion: What high voltage lines will be required for large-scale CSP development in the San Luis Valley and the solar GDA south of Pueblo?



GDA
San Luis
Valley

over LaVeta Pass

to the Four Corners hub?

to New Mexico?

Recommendation to CEDA

Once the transmission study results are completed, anticipated by June, CEDA could consider inviting a representative of the CLRTPG to brief the Board on their results.



Thank You

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