Earth System Dynamics Discussions

Earth Syst. Dynam. Discuss., community comment CC2
https://doi.org/10.5194/esd-2021-85-CC2, 2021
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Reply on AC1

Richard Rosen

Community comment on "Exploration of a novel geoengineering solution: lighting up tropical forests at night" by Xueyuan Gao et al., Earth Syst. Dynam. Discuss., https://doi.org/10.5194/esd-2021-85-CC2, 2021

Thanks, but from your figures it appears that the amount of generating capacity needed to illuminate all the square meters of tropical forest would be about 22,000 GW, or about 20 times the total generating capacity of the United States. If my calculation is correct, this is hardly a practical approach to removing CO2 from the air. That is why I asked you in my first comment how you propose to provide all this electricity to run the lights shining on all the needed tropical forest to remove as much CO2 as you propose removing by this scheme.