

TO: Illinois Power Agency (IPA), 105 West Madison Street, Suite 1401, Chicago, Illinois 60602

FROM: Dr. David G. Loomis, President, Strategic Economic Research LLC

SUBJECT: Response to 2024 Policy Study's SOO Green Economic Impacts, dated January 22, 2024

Background: The IPA has provided a draft of its 2024 Policy Study (dated January 22, 2024) and invited comments on that draft. The Policy Study contains an analysis of High Voltage Direct Current Transmission Lines, specifically SOO Green HVDC, including a study of the transmission line's economic impacts to the State of Illinois. The results differ from impacts calculated by my firm, Strategic Economic Research (SER), in a separate, Illinois-focused economic impacts report. Because the IPA 2024 Policy Study impacts were calculated, in part, using the Illinois-focused SER economic impact report, SER believes some potential errors occurred in the IPA study's analysis. The following comments attempt to explain and remedy those potential errors.

Response: On pages 173-174, 179, 225-226, and throughout Appendix D, the IPA 2024 Policy Study references economic impacts to the State of Illinois in response to the construction and operations of SOO Green HVDC Link. These economic impacts were prepared by Levitan & Associates for the IPA and, according to pages 2-3 of Appendix D, utilized a SER economic impact report¹ as a basis for cost inputs for modeling. In the referenced IL-focused SOO Green economic impact report, \$426 million in total costs were estimated to be spent in Illinois during SOO Green's construction (2027-2029). The Levitan study used a construction period of 2025-2029 and construction costs of \$386 million. Levitan's construction costs were calculated by deflating SER's costs "...into real 2023 dollars using an assumed construction midpoint of 2027 and an assumed annual inflation rate of 2.50%²."

SER believes that the deflation and inflation of construction costs was unnecessary due to the functions of IMPLAN modeling, the economic modeling software employed in the Levitan study, and the software of choice for SER. When running a model in IMPLAN, a user can set the year in which the spending and subsequent impacts will occur. IMPLAN's robust functionality will automatically adjust for inflation and deflation, conveniently calculating this step for the user. Inflating and deflating costs prior to addition into an IMPLAN model would result in double adjustment of cost inputs as IMPLAN would proceed to further adjust the already adjusted cost inputs once the model runs with a dollar year set to a non-current year.

If Levitan used a lower total construction cost figure for modeling than SER's total construction cost, the results of the Levitan study would be expectedly lower. However, Levitan's results are significantly lower than SER's results. Levitan mentioned the use of "scalars" on page 3 of Appendix D with regards to calculating construction and operations impacts: *"The SER study provided the total, direct, indirect and induced output as well as total, direct, indirect and induced employment associated with both the project*

¹ "Economic Impact Analysis of the SOO Green HVDC Link Transmission Project on the State of Illinois," Strategic Economic Research, LLC; February 2023

² "IPA 2024 Policy Study," Appendix D, pg. 2

CapEx and the project OpEx. These values were used to derive eight scalars (total, direct, indirect and induced for both output and jobs) that were applied to the LAI SOO Green CapEx output and SOO Green CapEx jobs IMPLAN results to derive the SOO Green OpEx output and SOO Green OpEx employment results. The scalars deflated the study's output values into real 2023 dollars values based on a 2.50% inflation rate, a 2027 midpoint for CapEx and a 2039 midpoint for OpEx. The scalars also adjusted for the SER study assuming 30 years of operation to reflect the Policy Study's modeling of 20 years of operation."

SER questions the derivation of these scalars since they led to results that were a stark contrast to the impacts calculated by SER. Once again, SER feels deflating any results is unnecessary given IMPLAN's auto-adjustment of model inputs spent in different dollar years, i.e. a double adjustment. A comparison of Levitan results from Appendix D to SER's economic impacts is shown below³:

Table 1 - Levitan Construction impacts - pg. 14 of Appendix D

Impact	FTE-years	Labor Income (\$mil)	Output (\$mil)
Direct	174.2	\$15.3	\$49.5
Indirect	110.77	\$9	\$26.7
Induced	1,705	\$112.7	\$332.1
Total	1,989	\$137.1	\$408.5

Table 2 - SER Calculated Construction Impacts - Feb. 2023 IL SOO Green Econ Impact Report

Impact	Jobs	Labor Income (\$mil)	Output (\$mil)
Direct	1,699	\$371	\$371
Indirect	288	\$24	\$67
Induced	1,882	\$119	\$345
Total	3,810	\$515	\$783

Table 3 - Levitan Operations impacts - pg. 14 of Appendix D

Impact	FTE-years	Labor Income (\$mil)	Output (\$mil)
Direct	79.7	\$7	\$75.5
Indirect	292.05	\$23.7	\$150.4
Induced	1,175.32	\$77.7	\$163.3
Total	1,479.86	\$101.9	\$579.8

³ "Value Added" is a unit of economic impacts included in Levitan's report but was not calculated for SER's Feb 2023 SOO Green IL economic impact report.

Table 4 - SER Annual Operations Impacts - Feb. 2023 IL SOO Green Econ Impact Report

Impact	Jobs	Labor Income (\$mil)	Output (\$mil)
Direct	39	\$7.3	\$38
Indirect	38	\$6	\$25.3
Induced	65	\$4	\$11.4
Total	142	\$17.3	\$74.7

Table 5 - SER 20 Year Operations Impacts⁴

Impact	Job-years	Labor Income (\$mil)	Output (\$mil)
Direct	780	\$146	\$760
Indirect	760	\$120	\$506
Induced	1,300	\$80	\$228
Total	2,840	\$346	\$1,494

Some Levitan construction impacts in Table 1 are less than half of SER construction impacts in Table 2 despite using a construction cost total that was only ~9% lower. Levitan used “FTE-years” as the unit for their construction employment impacts whereas SER used “Jobs” but this change in unit and the deflation of SER construction impact still doesn’t justify the massive difference between the two reports’ results.

Even when SER operations impacts in Table 4 are converted into Job-years using the IPA’s stated 20-year lifespan, the Table 5 impacts differ tremendously from Levitan’s operations impacts in Table 3. Because the scalars weren’t revealed, SER can’t replicate nor defend against Levitan’s results.

Furthermore, on pages 174 and 179 of the IPA 2024 Policy Study, there are comparisons between the Levitan Illinois economic impacts and the economic impacts in Iowa due to SOO Green as calculated by SER. As established, SER calculated impacts for Illinois stemming from SOO Green are much larger than the impacts calculated by Levitan, and the same large impact trend continues for impacts calculated by SER for Iowa. But since the Levitan impacts are much lower than either the SER Illinois impacts or SER Iowa impacts, the comparison of the Levitan Illinois impacts to the SER Iowa impacts make it appear that Illinois will receive a paltry number of impacts in comparison to Iowa. SER modeling would suggest this is not the case. A larger portion of SOO Green is constructed in Iowa than Illinois leading to there being more impacts in Iowa versus Illinois, but the two states have comparably large sets of economic impacts according to SER modeling. The Levitan modeling in the IPA 2024 Policy Study would lead one to believe that Illinois would be receiving a tiny fraction of the total impacts stemming from SOO Green.

⁴ Data in this table is not in the Feb 2023 SER SOO Green IL economic impact report but is in this document to create a better comparison to the Levitan operations impacts.



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After careful study, SER disagrees with methodological choices potentially used by Levitan in calculating construction and operations economic impacts for the State of Illinois stemming from SOO Green. Deflation/inflation of costs shouldn't have been adjusted outside of IMPLAN, operations impacts weren't in line with SER expectations, and the comparison of Levitan's Illinois economic impacts to SER's Iowa economic impacts isn't a fair comparison because of methodological differences.

In conclusion, SER believes a proper remedy to the issues mentioned above is to include SER's Feb 2023 SOO Green Illinois economic impacts in the revised version of the IPA's 2024 Policy Study.