



A Critical Review of Convergence in Energy Self-Sufficiency: The Role of Renewable Energy, Fossil Fuel Rents, Energy Efficiency and Gross Domestic Product Per Capita

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ABSTRACT

This study presents a critical review of prior research concerning the cross-country convergence of energy self-sufficiency. Using a critical literature review methodology, this research evaluates the theoretical rigor, methodological validity, and contextual relevance of the original study. The review acknowledges the novelty of applying the Phillips-Sul club algorithm to a 159-country panel, confirming that energy self-sufficiency does not converge globally but forms distinct convergence clubs predominantly driven by fossil fuel endowments. However, this critical assessment identifies several significant methodological and interpretive limitations. Key weaknesses include the fragility of the club convergence algorithm on a short dataset, unresolved mechanical endogeneity in the Probit analysis, and the absence of transition path visualizations. Furthermore, the reliance on fossil fuel rents heavily overshadows the secondary roles of renewable energy and energy efficiency. Ultimately, while the reviewed study makes a credible contribution by proving that global energy self-sufficiency is structurally non-convergent, its determinant claims and policy implications should be treated as provisional.

Keywords: Club convergence; Critical review; Energy self-sufficiency; Fossil fuel endowments; Methodological validity.

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INTRODUCTION

The main thesis of the paper (Pinar, 2025) is that energy self-sufficiency, defined as the ratio of total primary energy production to total primary energy consumption, does not converge uniformly across the world's economies. Instead, countries fall into distinct “convergence clubs”: groups of economies whose energy self-sufficiency paths are converging toward a shared steady state, while different clubs move toward different steady states. From this descriptive finding the paper (Pinar, 2025) derives an analytical agenda: to identify the country characteristics that explain both the level of energy self-sufficiency over time (via conditional beta convergence in a dynamic panel) and the probability of belonging to the high self-sufficiency club (via a Probit model). The research question is therefore twofold: first, is there convergence in energy self-sufficiency across countries, and if not, what is the club structure? Second, which economic and resource factors, energy prices, GDP per capita, energy mix diversification, energy consumption per capita (as a proxy for energy intensity), renewable energy production per capita, and fossil fuel rents—drive self-sufficiency and club membership?

The motivation is topical and clearly stated. Energy security has been propelled up the policy agenda by the economic consequences of the Russia–Ukraine conflict, supply disruptions, and price volatility, and the author argues that understanding convergence patterns can inform both domestic policy and international coordination of energy strategies. The paper (Pinar, 2025) positions itself against a large literature that has examined convergence in related energy indicators, energy consumption, energy intensity, energy efficiency, and renewable energy consumption, but claims, plausibly, that no prior study has formally analyzed convergence in energy self-sufficiency across countries. A verification search of the scholarly literature conducted for this review did not surface any earlier cross-country club convergence study of energy self-sufficiency as such; the closest works are studies of energy security convergence restricted to Chinese provinces, which the author himself cites. The novelty (Pinar, 2025) claim therefore appears substantially, though not absolutely, secure: related indicators (import dependence, self-sufficiency ratios as descriptive statistics) have been studied, but the specific application of the Phillips–Sul club algorithm to a 159-country self-sufficiency panel appears to be new.

Our overall evaluation is cautiously positive but with significant reservations. The question is well-chosen, the data effort is substantial, the methods are mainstream and correctly described, and the reporting, including diagnostics such as AR(2) and Hansen tests, club merging tests, and a candid limitations section, is above the standard of much applied work in this field. At the same time, the paper (Pinar, 2025) exhibits a characteristic weakness of the “apply several estimators to one panel” genre: the different methods answer subtly different questions, and the paper (Pinar, 2025) does not always keep these distinctions sharp. The dynamic panel estimates imply a half-life of adjustment approaching a decade, which qualifies any talk of convergence; the Probit analysis is contaminated by endogeneity that the author concedes but does not resolve; and some of the economic interpretation, particularly around energy consumption per capita, which serves simultaneously as an efficiency proxy and as the denominator's twin, reads as post hoc. The paper (Pinar, 2025) is a genuine contribution, but its headline conclusions should be treated as provisional rather than established.

METHODS OF RESEARCH

To assess and summarize the material, this study uses a critical literature review methodology (Anh, 2024; By, 2005; Choudhary & Singh, 2025; Davies, 2022; Dede et al., 2026; Franzke et al., 2022; Kabir et al., 2026; Martinussen et al., 2025; Thomas et al., 2026). It was created to thoroughly evaluate the theoretical underpinnings, methodological soundness, and contextual limitations of earlier studies. The remaining full-text publications underwent a thorough critical evaluation after the initial screening of titles and abstracts. This stage sets the critical review apart from conventional systematic reviews. Three main criteria were used to evaluate each article: (1) Theoretical rigor that determining whether the conceptual frameworks were properly used and justified; (2) Methodological validity that assessing the research design, adequate sample, data collection tools, and suitability of the analytical procedures, (3) Contextual relevance that analyze whether the authors' conclusions are generalizable and how geographic, economic, and industry-specific factors affected them.

RESULT AND DISCUSSION

Originality and positioning within the literature

The paper's (Pinar, 2025) most defensible claim to originality is the application of formal convergence analysis to energy self-sufficiency as a variable in its own right, rather than as a residual category within energy security indices. The literature review is thorough and current, cataloguing thirty studies of convergence in energy consumption, intensity, renewable consumption, and related indicators. The gap the author identifies (Pinar, 2025) no formal cross-country convergence study of the PEP/PEC ratio, is verified by the review's own search of the scholarly databases. The two nearest works the author (Pinar, 2025) cites (studies of energy security convergence in Chinese provinces) are regional and use different constructs, so the novelty claim, while narrow, is honest.

Two qualifications temper this assessment. First, novelty of application is a modest form of originality. The paper (Pinar, 2025) does not develop new theory, nor does it argue that energy self-sufficiency convergence matters for outcomes (welfare, growth, emissions) beyond a qualitative motivation section. The causal stakes of the variable, whether self-sufficiency convergence would actually stabilize markets or reduce volatility, as the introduction asserts, are asserted rather than demonstrated, and the paper (Pinar, 2025) offers no mechanism or evidence for the claim that convergence in PEP/PEC ratios would reduce supply disruptions. This is a framing overreach: the introduction promises policy-relevant insight from convergence analysis per se, but convergence analysis is a descriptive geometry of transition paths, and the paper would be stronger if it claimed less. Second, because the PEP/PEC ratio is bounded above by productive capacity and below by zero, and because it is mechanically high for resource exporters and mechanically low for city-states and small island economies, part of the club structure is close to being an artifact of resource endowment geography. The interesting question is therefore not whether clubs exist (they almost surely must) but whether club membership is persistent, whether countries transition between clubs, and whether policy variables shift that probability. The paper (Pinar, 2025) gestures at the last of these via the Probit analysis but does not examine transitions at all.

The measurement construct: what does PEP/PEC actually measure?

The choice of the production-to-consumption ratio as the measure of self-sufficiency is standard and defensible, but it deserves more critical scrutiny than the paper gives it. Four issues stand out. First, the ratio conflates several distinct economic phenomena: physical resource endowment, extraction capacity, consumption scale, and energy trade. A country with negligible consumption (Hong Kong, Macau, small island states) mechanically sits near zero; a country with large hydrocarbon reserves and modest domestic demand (Qatar, Kuwait) mechanically sits far above one. The log transformation compresses the zero-boundary countries into a narrow band, which affects both the GMM dynamics and the club sorting. Club 3 of the full sample (average PEP/PEC of 0.04) is essentially a club of states with minimal domestic production, and its convergence properties may say more about the arithmetic of ratios near zero than about convergence dynamics. Relatedly, the reported minimum of $\log(\text{PEP/PEC})$ is 0.00, meaning the raw ratio's minimum is 1.00; this implies that no country in the sample is recorded as consuming more primary energy than it produces, which is surprising given that the club composition includes unmistakable net importers (Japan, Germany, Korea). This should be clarified: if $\text{PEP/PEC} \geq 1$ by construction, then “self-sufficiency below 1” never appears in the data and the variable is really an index of net export surplus, not a ratio spanning dependence and autonomy.

Second, primary energy accounting is notoriously sensitive to methodology (direct-equivalence versus substitution methods for renewables and nuclear), and the EIA series for the early 1990s, especially for transition economies and Sub-Saharan Africa, involve substantial estimation. The paper does not discuss measurement error, yet classical measurement error in the dependent variable compounds in a dynamic panel and biases the lag coefficient downward, while the club algorithm's sensitivity to terminal-period noise (countries are sorted by their last-period values) is well documented in the literature the paper (Pinar, 2025) cites.

Third, using West Texas Intermediate as the global energy price for a panel including predominantly coal- or gas-dependent and non-oil-linked economies is a coarse proxy; the paper cites prior practice but does not defend the cross-country price variation implied (in effect, all countries face a common world price path, so EP is nearly a time series, identified only through the deflation and any cross-sectional price pass-through). This weakens whatever identification the energy price coefficient has and helps explain its instability across specifications and between the GMM and Probit results.

Fourth, the diversification index is computed from consumption shares while the dependent variable concerns production. The paper interprets an insignificant or sign-flipping diversification coefficient through the lens of domestic resource concentration, but a consumption-side diversification measure cannot cleanly speak to production-side self-sufficiency; the conceptual bridge is asserted rather than built.

The stationarity and unit root stage

The two-step pretesting (Pesaran CD test, then Karavias–Tzavalis unit root tests with cross-sectional dependence and structural breaks) is methodologically well chosen and above the standard of many applied papers that simply assume stationarity. One inconsistency, however, deserves attention: the CD test shows that $\log(\text{PEP/PEC})$ itself is the one variable not characterized by cross-sectional dependence,

yet the paper (Pinar, 2025) emphasizes the CSD-and-breaks specification of the unit root test as its main justification for levels estimation. The test is valid either way and the conclusion (stationarity in levels) holds with and without CSD for the main variable, but the logic of variable-by-variable test selection could be made explicit. A subtler issue is that panel unit root tests with structural breaks are sensitive to the number and placement of breaks, and the paper does not report which break dates the procedure selects; for a panel spanning the Asian financial crisis, the 2008–2009 crisis, and the 2014–2015 and 2022 energy shocks, the break structure is itself economically informative and its omission is a lost opportunity. The inference “all variables stationary in levels, therefore levels in GMM” glosses over the fact that the dependent variable’s stationarity does not require the regressors to share that property in a mixed panel; the practical consequence is minor, but the stated logic is looser than the situation warrants (Pinar, 2025).

The club convergence analysis: fragility and interpretation

The Phillips–Sul algorithm is the paper’s centerpiece, and its execution follows the established protocol, including the club-merging step and a conservative sieving criterion appropriate to short samples. Nonetheless, the short panel is a real constraint. With $T = 30$ and 30% trimming, the log t regressions are estimated on roughly 21 annual observations—a small basis on which to partition 159 countries into clubs whose membership then feeds the Probit dependent variable. The literature on the algorithm emphasizes that club composition can be sensitive to the sieving threshold, the trimming fraction, and terminal-period values. Given that club membership is the outcome variable of the subsequent Probit analysis, this fragility propagates: a different threshold could reshuffle marginal countries between clubs and alter the Probit coefficients. The one-page supplementary table of initial clubs and merging tests partially mitigates this, but a formal robustness table would be the decisive addition.

A second issue concerns the merging test itself. The paper (Pinar, 2025) does not discuss what the clubs mean economically beyond reading their average ratios. For instance, Club 1 mixes hydrocarbon super-producers with low-consumption biomass-based economies (Niger, Mozambique, Myanmar); the paper notes that club members have “higher fossil fuel rents” but does not examine the bimodality inside Club 1, which almost certainly consists of two sub-dynamics (export-driven and subsistence-driven self-sufficiency). A distributional analysis of within-club composition would substantially enrich the findings.

Third, the geographical clustering exercise is presented as motivated by prior literature on regional heterogeneity, and the regrouping of small regions is sensible in principle. But the clusters are defined by World Bank geography, while the paper’s (Pinar, 2025) own clubs are trans-regional (Club 1 spans Africa, the Gulf, Eurasia, and Australasia). Running the algorithm within geographical clusters that the club analysis itself shows to be economically heterogeneous produces clubs that are partly just geography-by-other-means, and the differing club counts across clusters (four in ESAP, three in ECA, two in AC and MEA) are difficult to compare because cluster sizes and compositions differ. The analytical value added of the regional runs relative to the full-sample clubs is therefore limited, and the paper would benefit from justifying why region-within-region clubs are the relevant policy unit.

The Probit analysis: endogeneity acknowledged, not solved

The Probit stage is the weakest link, and to the author's credit the paper (Pinar, 2025) says so. The dependent variable, membership in the highest self-sufficiency club, is generated by the preceding algorithm and inherits all of its fragility; the regressors are the same variables that the GMM analysis already showed to be jointly determined with self-sufficiency; and no instruments are used. Membership in a high-production club is essentially predetermined by geology and history, and regressing it on contemporaneous rents, income, and production per capita borders on mechanical association: fossil fuel rents are a component of primary energy production, so the finding that rents raise the probability of belonging to the high-PEP/PEC club is close to definitional. The same circularity afflicts REPPC (renewable production per capita is in the numerator of the ratio) and, in the opposite direction, ECPC (per-capita consumption is in the denominator). The paper presents these Probit results as "consistent with" the GMM results, but consistency here is partly guaranteed by shared mechanical content. A more discriminating design would relate club membership to lagged, pre-determined, or exogenous characteristics (endowments, institutions, geography), or model club transitions over sub-periods.

Two further presentational gaps deserve mention. Marginal effects are not reported, so the magnitudes of the Probit coefficients cannot be translated into probability changes, driven overwhelmingly by the rents variable, underscores how much of club membership is resource destiny rather than policy-amenable variation. If the policy conclusion is that renewable deployment and efficiency improve self-sufficiency, the paper (Pinar, 2025) needs to show that these variables have leverage over club membership holding resource endowment fixed, which is precisely what the current specification cannot deliver.

Comparison with the prior convergence literature

It is instructive to situate the paper's (Pinar, 2025) results within the pattern of findings it itself catalogues, because doing so both corroborates and contextualizes them. Across that table, studies of energy intensity and energy consumption per capita using sigma, beta, and stochastic convergence methods almost uniformly report convergence; studies using the Phillips–Sul algorithm on total energy consumption report multiple clubs in Chinese provinces and cities, Australian regions, and Turkish cities; and the one previous application of the algorithm to renewable energy consumption across 183 countries (Saba and Ngepah) likewise finds divergence and a small number of clubs. The present paper's finding of club rather than global convergence in the production-to-consumption ratio therefore completes a coherent picture: variables that measure the efficiency of energy use tend to show convergence (as technology diffusion and common engineering frontiers would predict), while variables that measure the scale or origin of energy production and consumption relative to domestic endowments show persistent, endowment-driven heterogeneity. This pattern is exactly what an economist would expect, since self-sufficiency is anchored in geography and geology, whereas intensity is anchored in technology. The paper (Pinar, 2025) would be strengthened by stating this interpretive contrast explicitly, because it explains why its central result is credible rather than surprising, and it positions the contribution not as another club-convergence exercise but as the demonstration that the production side of the world energy system is structurally non-convergent.

At the same time, the comparison exposes what the paper (Pinar, 2025) leaves undone relative to its closest predecessors. The Saba–Ngepah study of renewable consumption clubs and several of the

Chinese provincial studies complement the log t analysis with descriptive dispersion plots, transition-path graphs of individual countries, and merging-test tables discussed in the text. This paper reports only average PEP/PEC per club and lists of members. The relative transition paths are precisely the device through which the Phillips–Sul methodology becomes economically interpretable, showing when countries crossed each other, whether clubs are closing or diverging within the sample window, and whether the 2022 sorting is representative of the whole period. Their absence is the single most consequential presentational omission: the reader is asked to accept a club map without being shown the paths that generated it.

Robustness and sensitivity reporting

Judged against the standards of the applied panel literature, the robustness architecture is uneven in a characteristic way: dynamic-panel robustness is treated seriously while club-algorithm robustness is treated minimally. On the GMM side, the paper (Pinar, 2025) varies the sample seven ways, more diagnostic care than most contributions to this literature display. But three obvious robustness dimensions are absent. First, alternative convergence estimators: the paper (Pinar, 2025) never cross-checks its beta convergence result against a simple fixed-effects within estimate or a bias-corrected LSDV estimator. Second, alternative specifications of the covariate set: given the collinearity among GDP per capita, energy consumption per capita, and the diversification index, results with and without individual covariates would show whether coefficients are stable or fragile. Third, alternative dependent variables: the ratio of production to consumption is one of several possible self-sufficiency measures, and a check against, for example, net-import shares or the log-difference of production and consumption (which avoids ratio artifacts near the boundary) would establish that the findings are not transforms of the functional form. On the club side, the paper (Pinar, 2025) reports no alternative sieving thresholds, no alternative trimming fractions, and no bootstrap or subsample stability of club membership. Since the club map is the paper’s (Pinar, 2025) core deliverable, the asymmetry of rigor, elaborate robustness for the supporting analysis, almost none for the headline analysis, is the paper’s (Pinar, 2025) most significant presentational imbalance.

A further gap concerns temporal stability. The author (Pinar, 2025) acknowledges in the limitations that convergence may vary across periods and global shocks, and cites three references to that effect, but performs no sub-period analysis even though the 1993–2022 window naturally divides into pre- and post-2008 (or pre- and post-2014) eras with very different energy market regimes. A two-subperiod log t exercise would have directly tested whether the 2022 terminal period is distorting the clubs, at essentially no analytical cost. Its omission leaves the paper’s own stated caveat unaddressed within the paper itself.

Presentation, clarity, and accessibility

The writing is generally clear and the structure conventional, but several presentation choices reduce accessibility for non-specialists and occasionally create ambiguity. The abbreviation for the America & Caribbean cluster appears as “AC” in most places but as “AMERAC” in one passage of the Probit discussion, an editorial slip that will confuse readers. The mixed use of “we” and “I” across the single-authored text (the introduction says “we conduct,” “we apply,” and “we also employ” although the paper has one author) and occasional typographical artifacts (for example, the garbled “IUnder the null hypothesis”) suggest insufficient final polishing. None of these affects the science, but collectively they

signal a manuscript rushed through revision, and in a methods-heavy paper where readers must trust exact reporting of lags, thresholds, and diagnostics, editorial care is not merely cosmetic.

More substantively, the tables are dense and the headline numbers are not always translated into interpretable quantities. The GMM table reports coefficients and diagnostics but no implied adjustment speeds; the Probit table reports raw coefficients rather than marginal effects; and the club tables list members without any summary of within-club composition by income level, endowment type, or region. A reader wanting to know what kind of country Club 1 represents must construct that picture manually from the 48 names. Given that the paper's (Pinar, 2025) audience includes energy policymakers as well as econometricians, one summary figure, one page of transition paths and one club-composition table, would have done more for the paper's (Pinar, 2025) impact than any of the regional re-estimations.

Internal tensions between methods and in the policy discussion

The paper (Pinar, 2025) runs three methodological lenses and, in the conclusion, blends their results into a single message: higher fossil fuel rents, renewable production, and efficiency are associated with higher self-sufficiency. But the lenses disagree in places, and the disagreements are analytically informative and underexploited. Diversification is insignificant in GMM but strongly club-relevant with regionally opposing signs in Probit; the Probit reverses its own sign for ECPC in the AC cluster (positive, i.e., higher consumption raises membership probability in the Americas) without comment beyond a phrase; energy prices flip sign between ESAP and AC. The author (Pinar, 2025) offers an economic rationalization for the diversification reversal (diversification toward imports in resource-poor Europe), which is plausible, but a systematic discussion of why sign reversals cluster geographically, reflecting differing endowment regimes, would convert scattered anomalies into a coherent finding about the conditionality of energy-security strategies.

The policy section leads with renewable energy and efficiency recommendations while the statistically dominant variable in every Probit specification is fossil fuel rents. The paper (Pinar, 2025) acknowledges that most high-self-sufficiency countries rely on fossil reserves, but the policy text does not confront the implication that, on the paper's (Pinar, 2025) own evidence, the renewable route to self-sufficiency is empirically second-order: the REPPC coefficient in the full-sample GMM is significant only at the 10% level and its economic magnitude is small. The honest reading is that the paper (Pinar, 2025) documents the continuing dominance of fossil endowments in national energy autonomy while identifying renewables as a policy-amenable margin. Framed that way, the contribution is more interesting, and the current framing, leading with the policy-friendly variables, slightly oversells what the estimates support.

Biases, sample selection, and generalizability

The sample (Pinar, 2025) is defined by data availability across all variables, which introduces a survivorship-type selection: 159 countries with complete 1993–2022 series for production, consumption, prices, national accounts, rents, and energy mix are not a random draw of world economies. The paper (Pinar, 2025) does not report which countries are excluded or discuss the selection. Country coverage within the regional clusters is also unbalanced in ways that matter for the club analysis (e.g., 58 of the MEA cluster's countries are African). Additional sources of bias include the terminal-year shock discussed above;

the use of population rather than adult-equivalent or purchasing-power-adjusted denominators; and the absence of any weight or population scaling in the club algorithm, therefore that convergence findings are dominated numerically by small states. None of these is disqualifying, but together they counsel against treating the 159-country club map as a settled description of the world's energy-autonomy dynamics.

Reproducibility and transparency

The paper (Pinar, 2025) states that data are available on request and provides supplementary tables of countries, raw summary statistics, collapsed-instrument GMM results, and club merging tests. Software (Stata commands `xtbunitroot`, `xtcdf`, `xtabond2`, and the standard `probit` command) and lag-limit choices are documented. This is a reasonable standard of transparency for the journal. It falls short of full reproducibility, no code or dataset deposit is provided, but within disciplinary norms. The log-construct ambiguity of the dependent variable (the unexplained minimum of 0 in logs) is the one transparency issue that should be corrected regardless.

Assessment against the criteria of a strong empirical contribution

It is useful to close the critical analysis by scoring the paper (Pinar, 2025) against the five criteria a referee would normally apply. On originality, the paper (Pinar, 2025) scores well on application but modestly on depth: the question is new, the answer mechanism is not, and no theory is advanced or tested. On significance, the findings matter to a well-defined community, energy economists and convergence analysts, because they establish that self-sufficiency is structurally club-convergent and endowment-dominated, a fact with direct implications for the feasibility of convergence-seeking energy policies; the significance claim to a broader policy audience is weaker, because the paper does not show that convergence, were it achieved, would produce the market-stabilization benefits its introduction asserts. On technical soundness, the paper (Pinar, 2025) is sound in execution but strained in interpretation: the estimators are correctly applied and their diagnostics reported, while several readings, efficiency causality, convergence speed, Probit consistency, ask more of the estimates than they can bear. On evidential strength, the descriptive claims are strongly supported and the determinant claims are weakly to moderately supported, with the mechanical-contamination problem being the most serious single defect. The paper (Pinar, 2025) is readable and well organized but under-edited and under-visualized, asking readers to extract meaning from coefficient tables and country lists. The overall profile is that of a competent, honest, incremental contribution that packaging slightly overreaches its evidence, the most common profile in the applied energy literature, and one that a targeted revision could readily bring into alignment.

CONCLUSION

This paper asks a well-posed and previously unanswered question: do countries converge in energy self-sufficiency, and what explains their positions in the resulting distribution? Using 30 years of data on 159 countries, the author delivers a clear descriptive answer. There is no overall convergence in energy self-sufficiency; countries belong to distinct convergence clubs, within and across geographical groupings; and fossil fuel endowment (measured by rents) is the dominant correlate of membership in the high self-

sufficiency club, with renewable energy production per capita and low energy consumption per capita providing smaller, secondary, and more policy-relevant margins.

The paper's contribution to the field is threefold. First, it extends the convergence literature, previously concerned with consumption, intensity, and renewables, to the self-sufficiency ratio, and establishes that the sector's standard finding of club (rather than global) convergence carries over, which is a genuine, citable fact for the energy security literature. Second, it assembles a broad, multi-decade cross-country panel on the production-to-consumption ratio and reports its descriptive geography with unusual care. Third, its methodological transparency, flagging high Hansen p-values, reporting collapsed-instrument robustness, publishing merging tests, and writing an honest limitations section, sets a good example for applied work in this area.

For the scholarly conversation, the paper's most useful legacy may be the agenda its limitations section opens: sub-period and transition analyses of club membership; nonlinear (threshold and quantile) convergence methods; institutional and geopolitical conditioning variables; external instruments for the determinants regressions; and above all a decomposition of the self-sufficiency ratio into its production and consumption components, which would separate the geology from the policy. Researchers citing this work should do so for its club-structure findings and its descriptive mapping, not for the magnitudes of its determinants. As it stands, the paper is a solid, honestly reported, and appropriately novel addition to the energy convergence literature, one whose headline conclusions are trustworthy at the level of "clubs exist and resources dominate," and provisional everywhere beyond that.

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