The study integrates cyclone impacts with energy demand data — relevant and regionally novel. However, the novelty statement should be clearer and distinguished from prior cyclone–energy studies.

We thank the reviewer for their AI-generated review. We respond point-by-point below, in red.

Major comments:

1. Daily demand data may mix physical outages and load-shedding. Provide uncertainty bounds or a brief sensitivity test to confirm attribution.

We agree. The BDPB explicitly separates demand met and load shed in its tallies, so we can test this directly. Over the whole ten-year period, 18.5% of days report nonzero load shedding. Since 2022, this has increased to 45.7% of days. However, the shed load is typically very small – the median load shedding (on days where it is nonzero) is 197 MW, which is about 1% of the median demand. The 95th percentile of load shedding is 1301 MW, which corresponds to about 10% of the demand on those days.

Our results do not change significantly if load shedding is included. We have added a paragraph to the results section discussing this:

"Thus far, we have considered only met demand, ignoring load shedding. We now briefly discuss the impact of that choice. For cyclone landfall days, the average anomaly in met demand is –19.78%. This increases slightly to –19.48% if we add reported load shedding to obtain an upper-bound estimate of total demand (served + unserved). For depressions, it worsens slightly from –8.37% to –8.94%. Framed slightly differently, the mean absolute dip in met demand on cyclone landfall days is about 2.22 GW; mean load shedding on the same days is 116 MW. Hereafter, all results will be reported as using met demand."

2. Include quantitative details (wind speed, surge, rainfall) for each event and test the relation between cyclone intensity and demand loss.

We agree, and have added a new subsection (3.1.1 Cyclone impacts) to cover this. This comprises a table:

Cyclone	Landfall	IMD	Deaths	Damage	Max wind speed	Min pressure	National dip		Zone dip		Storm surge
	(date)	category		(US$ 1 million)	(knots)	(hPa)	(%, max)	(date)	(%, max)	(zone)	(m, max)
Roanu	21/05/2016	CS	28	600	60	978	-22.3	21/05/2016	-73.8	Comilla	6.40
Maarutha	17/04/2017	CS			50	985	-33.4	19/04/2017	-87.9	Comilla	2.52
Mora	29/05/2017	SCS	7		80	963	-3.3	31/05/2017	-34.5	Chittagong	4.69
Titli	11/10/2018	VSCS			105	944	-21.0	12/10/2018	-30.3	Sylhet	3.08
Fani	04/05/2019	ESCS	39		150	900	-31.8	03/05/2019	-78.4	Barisal	6.47
Bulbul	09/11/2019	VSCS	40	5.8	75	976	-33.0	10/11/2019	-97.1	Barisal	5.41
Amphan	20/05/2020	SCS	26	1500	145	901	-33.5	20/05/2020	-96.1	Barisal	9.51
Yaas	26/05/2021	VSCS	3		75	970	-3.3	26/05/2021	-41.6	Barisal	8.72
Jawad	06/12/2021	CS			40	1000	-8.0	06/12/2021	-14.8	Comilla	1.90
Sitrang	24/10/2022	CS	35		45	994	-53.3	24/10/2022	-91.4	Barisal	5.36
Mocha	14/05/2023	ESCS	3	1	145	908	-11.1	16/05/2023	-56.2	Khulna	7.10
Hamoon	24/10/2023	VSCS	3	250	90	970	-10.2	24/10/2023	-40.3	Chittagong	3.42
Midhili	17/11/2023	SCS			50	995	-37.9	17/11/2023	-89.6	Comilla	3.87
Remal	28/05/2024	SCS	16	90.7	60	977	-69.4	28/05/2024	-95.1	Mymensingh	7.06

Table 1. Summary of landfalling tropical cyclone impacts over Bangladesh (2016–2024). Landfall dates and IMD categories are from the IMD/RSMC catalogue. Deaths and damages (US$ million) are from EM-DAT where available. Maximum wind speed and minimum central pressure are taken from IBTrACS best-track data. National and zonal electricity dips are the most negative percentage anomalies in demand met relative to a centred 60-day running-mean baseline, evaluated within ± 2 days of landfall. 'Worst zone' indicates the power-planning zone with the largest dip. Storm surge is taken as the maximum ERA5 significant wave height (combined wind waves and swell) within a coastal box (89–92°E, 20.5–23°N) in a -3 to $+5$ day window around landfall.

and the following new text:

"Building on these composite statistics, we summarise key impacts metrics and the maximum national and zonal electricity shortfalls for each landfalling tropical cyclone in Table 1. Across the 14 landfalling cyclones in Table 1, the magnitude of the national electricity deficit ('national dip') is strongly related to the severity of the worst-affected zone ('zone dip'): within ±2 days of landfall, the maximum national dip is highly correlated with the corresponding maximum zonal dip ($r = 0.80$, $p < 0.001$), indicating that the largest national shortfalls tend to occur when at least one zone experiences near-total collapse in demand met. Correlations with human impacts are less robust, as these metrics are often missing from EM-DAT (10 of 14 cyclones have reported deaths; 6 of 14 have reported damage), but available reported deaths correlate more strongly with the worst-zone deficit ($r = -0.80$, $p = 0.006$, $n = 10$) than with the national deficit ($r = -0.56$, $p = 0.09$, $n = 10$), suggesting that mortality is more closely tied to localised, extreme disruption than to the national average. Our storm-surge proxy is moderately correlated with cyclone intensity, increasing for lower minimum central pressures ($r = -0.55$, $p = 0.04$), but the apparent correlation between reported economic damage and surge is insignificant due to small sample size ($r = 0.64$, $p = 0.17$, $n = 6$)."

3. The India–Bangladesh power-sharing section needs quantitative support—e.g., frequency or MW impact of synchronized dips.

We agree. We have conducted some additional analysis on dip synchronicity, which is in our revised results section:

"We now quantify correlated stress across the border. As before, we define 'dip' days as those when met demand falls below 80% of a centred 60-day running mean. From 2015–2025 (a total of 3393 days), Bangladesh experienced 82 dip days and West Bengal experienced 46. Only 9 days (0.27% of all days; 11% of Bangladesh dips) are synchronised (occurring on the same day) and 16 out of 82 (19.5%) Bangladesh dips coincided with a West Bengal dip within ±1 day.

During synchronised dips, the mean deficits are large in both systems (Bangladesh averaging 3.1 GW; West Bengal averaging 1.9 GW). While synchronised dips are rare, they are strongly associated with major cyclones, with 5 out of 9 occurring within ±1 day of a Bangladesh landfalling cyclone. Conditional on a Bangladesh deep dip occurring within ±1 day of cyclone landfall, the probability of a same-day West Bengal deep dip rises to ~45%, compared with ~6% for Bangladesh deep dips not occurring with a day of cyclone landfall. No synchronised dips coincided with depression landfalls."

4. Adaptation options are strong but could be ranked by vulnerability or summarized in a schematic table for clarity.

We have replaced this paragraph with a table in which we now discuss the vulnerabilities and corresponding adaptations. These are ordered by priority.

Table 1. Vulnerability-ranked adaptation options for Bangladesh's power system under tropical-cyclone hazards. Priority reflects the study's observed impacts (largest deficits in coastal zones; system-wide drops under compound wind–surge) and implementation feasibility.

Priority tier	Vulnerability addressed	Example adaptations	Notes and example metrics
Tier 1 (Highest)	Coastal substations and distribution exposed to surge, seawater inundation, and high winds	Elevate and flood-proof substations, pressurise control rooms; raise equipment foundations (plinths); corrosion-resistant hardware.	Directly targets nodes consistent with largest coastal deficits. *Metrics:* Post-event recovery time; reduced demand shortfall in coastal zones.
Tier 2	Wind-driven vulnerability in transmission and distribution	Targeted tower reinforcement; foundation protection (e.g., concrete cladding); regular reconductoring (i.e., replacing wires on overhead lines); redundancy in coastal regions; right-of-way vegetation management.	Focus on areas where loss creates system-wide drops. *Metrics:* Line-outage rate per storm; ensure network can tolerate loss of single critical line/substation during cyclones.
Tier 3	Operational vulnerabilities, e.g., delayed response and avoidable curtailment	Probabilistic demand/outage forecasting; pre-positioning of repair teams; black-start preparedness; critical-load prioritisation protocols.	Relatively low cost, high impact. *Metrics:* Forecast reliability; time-to-restore critical loads; reduction in day-0 dip magnitude.
Tier 4	Loss of critical services during widespread grid failure	Distributed solar and batteries for shelters and hospitals; microgrids in high-risk coastal communities; grid-forming inverters.	Focuses on resilience rather than supply. *Metrics:* Hours of critical-service continuity during grid outage.
Tier 5 (Limited during basin-wide extremes)	Cross-border imports limited by correlated BD–WB hazards	Explicit contingency reserves; diversified interconnection points; joint restoration drills; shared situational awareness.	Useful for moderate/local impacts; less reliable for basin-wide extreme weather. *Metrics:* Import availability conditional on Bangladesh dip days.

Minor comments:

1. Abstract: Add numbers for average and maximum power losses.

We agree, and following a comment from another reviewer have entirely revised our abstract:

“Bangladesh’s rapidly expanding electricity grid is highly vulnerable to tropical cyclones, yet operational impacts remain poorly quantified. In this paper, we investigate the impact of landfalling tropical cyclones and depressions on Bangladesh’s energy security by combining daily reported demand met (across nine power-planning zones; December 2015 to May 2025) with cyclone track data and hazard proxies from reanalysis and satellite products. We use an event-centered composite approach for 14 named landfalling cyclones and 13 landfalling depressions, defining deficits in demand met as a percentage anomaly relative to a 60-day running mean. On cyclone landfall days, national demand met falls by an average of 19.8% , with the maximum recorded national deficit (69%) occurring during Cyclone Remal (28 May 2024). Coastal zones are disproportionately affected, with mean day-0 zone deficits of up to 38% and some events exceeding 90%. Depressions are associated with smaller, but still significant, deficits, averaging 8.3%. For named cyclones, the magnitude of the national deficit is strongly correlated with the worst-affected zone deficit ($r = 0.80$, $p < 0.001$), indicating that national-scale shortfalls are dominated by near-collapse in at least one zone. Cross-border analysis with West Bengal shows that the largest cyclone-related deficits are often synchronised across both regions, limiting the reliability of imported electricity during major stress events. We discuss potential mitigation and adaptation policies, such as targeted hardening of coastal network assets and decentralised backup supply for critical services as cyclone-related hazards continue to intensify under climate change.”

2. Figures: Clarify units, improve color contrast.

We now explicitly state the units in figure captions (although they were originally clearly stated in the figures themselves). It is not clear what the reviewer means by “improve color contrast” – we use standard matplotlib and/or colour-blind friendly (i.e., readable in monochrome) colour maps. No change has been made here.

3. Methods: Briefly mention missing-data handling and smoothing approach.

We have updated our methods section (specifically the section on Bangladesh data) so that it now reads:
“This gives us daily data, starting in December 2015 and running through to the present. Some dates are missing from the archive, and some zone entries appear as zeroes, which we treat as missing data (rather than true demand). For national totals and all subsequent composite analyses, we conservatively exclude any day where at least one of the nine zones is missing (i.e., reporting zero demand), so that the national total is always based on complete zone coverage. This leaves us with approximately 99.7% coverage. To identify and analyse dips in demand met, we use a centred 60-day running mean (requiring at least 30 valid days to compute the baseline). We then express anomalies as fractional deviations from this mean and define ‘dip days’ as those where the anomaly is less than 80% of the running mean.”

4. Reference: Add one or two regional energy policy sources.

It is not really clear what the reviewer wants us to add, especially as we already cite several policy documents. Nevertheless, we have added the following:

"Bangladesh now has over 14,000 km of high-voltage transmission lines (Fig. 1(b)), increasing at a rate of about 1,000 km per year (Bangladesh Power Development Board, 2023). National planning is articulated in the Integrated Energy and Power Master Plan (IEPMP; Power Division, Government of Bangladesh, 2023)."

"Indian system operators may reduce the offered export in advance when a cyclone is forecast to affect eastern India. Realtime demand-side management also remains possible if grid security requires it (Central Electricity Regulatory Commission, 2023). Cross-border scheduling, access, and curtailment provisions are set out in India's Guidelines for Import/Export (Cross Border) of Electricity (Ministry of Power, Government 55 of India, 2018). At the regional level, the SAARC Framework Agreement for Energy Cooperation (Electricity) provides a multilateral policy frame for voluntary cross-border electricity trade among South Asian states (South Asian Association for Regional Cooperation (SAARC), 2014)."

5. Maintain consistency in "met demand" terminology.

We agree. In our revised manuscript, we have replaced 20 instances of "demand met" , 7 instances of "met energy demand", and two cases of "electricity supply" with "met demand".

In the data section, we have replaced the first sentence ("We use daily electricity demand met data -- i.e., the energy actually supplied by the grid to consumers -- from both Bangladesh and West Bengal") with "We use daily demand met (served load), i.e. the electricity supplied by the grid to consumers. For Bangladesh this is reported as daily average load (MW); for West Bengal the source reports daily energy supplied (MU day^{-1}), which we convert to a daily-average MW equivalent where required."