



World Energy Café



Thursday
21st August 2025

Theme: Future Energy Leaders take on unlocking
finance for inclusive energy transitions

Takeaway Brief

Executive Summary

The session and accompanying briefs point to a single, practical message: finance alone won't deliver the transition — **targeted investment in infrastructure (grids, transmission, cross-border links), storage, and execution capacity is the multiplier that unlocks private capital at scale.** Market design, regulatory clarity, demand-side flexibility and tailored blended finance instruments are the levers. Community, youth and local capacity building must sit alongside capital deployment to make projects bankable and sustainable.

Top Takeaways

- 2. Invest in infrastructure first:** grid modernization, new transmission lines, and interconnectors enable the rest (generation, storage, green molecules) to function.
- 2. Storage + smart market rules = resilience:** reversible hydro, large-scale batteries and market signals that reward flexibility are essential.
- 3. Blended finance and concessional debt are catalytic:** concessional capital and de-risking instruments (guarantees, first-loss, FX hedges) unlock private capital.
- 4. Regulation & market design matter:** value-stacking, data access, interoperability and permitting speed are frequent blockers.
- 5. Project readiness & execution capacity are limiting factors:** mismatch between capital and bankable projects — focus on project preparation, local institutions and procurement.
- 6. Human capital and local ownership:** invest in youth skills, women-led energy solutions and community co-ownership (co-ownership models increase scale & acceptance).

Thematic Analysis & Recommendations

1) Infrastructure & Grids — Highest Priority

Why: Renewables and storage can't deliver universal access or resilience without adequate transmission, distribution upgrades and interconnectors. The Western Africa Power Pool is a model showing how regional grids increase flexibility and resilience.

Actions WEC should push:

- Prioritise regional grid projects and cross-border transmission in WEC advocacy and pipelines.
- Support a “grid readiness” diagnostic for member countries (technical, permitting, commercial).
- Promote policy that treats grid investment as national security & development (simplify permitting; fast-track critical corridor approvals).

2) Storage & system flexibility

Why: Storage reduces curtailment, improves firming of renewables and unlocks higher utilization of generation assets. However, market rules often penalize storage (charging/discharging tariffs, no revenue stacking).

Recommendations:

- Advocate for market rules that allow revenue stacking for storage (wholesale, ancillary, capacity).
- Push blended-finance pilots for reversible hydro and long-duration storage in regions with high renewables penetration.
- Commission guidance on “storage tariff design” for regulators.

3) Green molecules (hydrogen, ammonia, biogas)

Why: Important for heavy industry, shipping and long-distance energy transport — capital-intensive and requires demand-side offtake commitments.

Recommended WEC role:

- Facilitate demand-side consortia (steel, cement, shipping) to sign early offtake or joint investment commitments.
- Support regional hydrogen corridors, and pilot ammonia export frameworks (Africa → EU/Asia).
- Promote standards and transport solutions (pipeline vs shipping) assessment.

4) Market design, digitalisation & demand-side flexibility (DSF)

Why: DSF can defer grid reinforcement, reduce curtailment and optimise system economics — but value propositions and consumer engagement are weak.

What to do:

- Develop “value-stack” templates for regulators to allow assets to access multiple markets.
- Support pilot VPP/aggregator projects and data-sharing sandboxes.
- Run consumer literacy campaigns paired with simple tariffs (time-of-use, incentives).

5) Finance instruments & de-risking

Why: Private investors need bankable projects and mechanisms to manage political, currency and execution risk. Clean Investment Fund style programs that invest in programs (not single projects) help scale.

Instruments to promote:

- Blended finance facilities dedicated to storage and transmission (first-loss, guarantees).
- FX hedges / local currency facilities and sovereign contingent credit lines for infrastructure.
- Project preparation facilities (PPIAF-style) to bring projects to bankability quickly.

6) Capacity, execution & human capital

Why: Lack of institutional and implementation capacity stalls disbursement and increases costs.

Recommended interventions:

- Invest in project execution units (PEUs) inside ministries and utilities.
- Upskill youth/technical workforce and leadership programs for Just Transition projects.
- Incentivize local co-ownership and community projects to increase uptake and social license.

Investor perspective — what investors must learn

- **Understand the grid:** storage economics and negative pricing dynamics change project returns; investors must model curtailment and market rules.
- **Demand-side commitments matter:** hydrogen and green molecules need confirmed off-takers to be investible.
- **Political risk & local currency:** structure deals with FX mitigation and political risk insurance.
- **Market design engagement:** investors should co-create value-stack frameworks and support pilots that prove revenue streams.

One bold actionable proposal

“International Pooling + Regional Infrastructure Acceleration Facility”

- World Energy Council convenes a multi-donor pooled facility to co-finance transmission, interconnectors and long-duration storage in priority regions (e.g., West Africa).
- Facility features: blended capital (concessional + private), guarantees, project preparation grants and capacity building for PEUs.
- Outcome: accelerate bankable pipelines, reduce unit costs via scale, and crowd in private capital through structured risk sharing.

Suggested WEC next steps (practical)

1. **Create a short working group** on “Infrastructure + De-risking” (members: MDBs, DFIs, private investors, utilities).
2. **Fund 3 pipeline-ready pilots** (1 grid + 1 storage + 1 hydrogen corridor) with project prep support.
3. **Publish a short guidance note** on storage tariff design and value stacking (practical checklist for regulators).
4. **Youth & community program:** commit a small fund for youth technical scholarships and community co-ownership pilots.