itad

Initial assessment of global progress on multilateral power sector commitments

October 2024

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Acknowledgements

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We wish to extend our thanks to all of the initiatives that have to date been included in the assessment.

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Contents

Introduction

This report examines the publicly available information around progress on multilateral commitments to decarbonise power. These commitments are critical to drive ambition and speed up the zero emissions transition. The report outlines reported progress to date, considers best practice from existing initiatives and makes recommendations to strengthen individual initiatives and the overall ecosystem. This report informed and is informed by COP28 in terms of initiative activity and feedback on the initial assessment we have drawn.

Decarbonising power to support zero emissions

Decarbonising power is central to reaching zero emissions. Globally, power represents the highest emitting sector today. Its decarbonisation will also support emissions reduction in other sectors, including infrastructure, industry, transport and agriculture.

To achieve a zero emissions transition in the power sector, energy related emissions need to reduce from around 37 gigatonnes (GT) of CO2 per year presently[1] to zero in 2040. While several pathways to power sector decarbonisation have been theorised, the International Energy Agency (IEA) 2035 pathway for the G7 has the strongest government endorsement. Their pathway specifies 60 per cent of energy supply being produced by renewables by 2030.

Collaboration through multilateral initiatives

Decarbonising the power sector requires rapid and collaborative action. The last 15 years have seen extensive efforts from governments, civil society and businesses across the globe, contributing to a large and evolving ecosystem of activities.

More recently, public and governmental bodies have cooperated in their commitments to accelerate support for power sector decarbonisation and enabling technologies, through for example, knowledge generation and exchange, regulatory and policy development, technology transfer, advocacy, finance mechanisms and research and development. These multilateral commitments towards power sector decarbonisation (hereafter referred to as 'initiatives') - are critical to drive ambition and speed up the zero emissions transition.

There have been several efforts to map the work of these initiatives, including from the Future of Climate Collaboration research in 2020, the National Grid in 2021, and the Breakthrough Agenda in 2022 and 2023. Together, these offer an extensive list of initiatives. However, the current status and level of progress of initiatives is often unclear. Whilst many commitments have been made, we do not currently know whether these are on track. This has implications in understanding what has been delivered to date, at either initiative or ecosystem level, and how and where to take action to support the zero emissions transition.

Itad have analysed the published evidence available on the progress made towards delivering on commitments to date, by a shortlist of 23 active multilateral power sector decarbonisation initiatives (see Table 1). This report clarifies the current status of progress based on formal progress reporting by these multilateral initiatives, augmented by consultations and external data where practical.

1 In 2022 – see IEA (2023) 'CO2 Emissions in 2022'. IEA Publications

Methodology

In order to review current progress made by power sector decarbonisation initiatives, our methodology followed seven steps.

1. To develop a list of active initiatives for which we could establish current progress, a set of criteria were applied to a long, ecosystem-wide, list of multilateral power sector initiatives to produce a shortlist of initiatives as follows:
   - Initiative is publicly backed by governments with a commitment to deploy or cut energy and to scale finance (noting some of the commitments are quantitative and some qualitative)
   - Initiative brings together multiple governments
   - Initiative focuses on solutions needed for power sector decarbonisation[2]
   - Initiative is 'live', or the commitment timeline suggests that it is live
   - Initiative is supported by a secretariat[3]
2. Data sources for each initiative were identified from publicly available resources, via the initiative's website. These were complemented through consultations with multilateral power sector experts (see Step 7). We also consulted with initiative secretariats, the majority of which replied to communications received (see Step 6). Where outcome level data was not available from the initiatives but was practical to access publicly then this has been used.
3. A set of criteria were developed to assess, for each of the shortlisted initiatives:
   - The strength of the evidence available on progress towards the commitments made
   - Based on this evidence, the progress towards commitments achieved to date

   Strength of evidence criteria included: availability of published evidence, accessibility of published evidence, transparency in methodology used to determine progress, transparency in reporting, credibility and cogency of results.

   Progress criteria included: evidence of progress in establishing initiative, evidence of progress at activity level, evidence of progress at output level, evidence of progress at outcome level.
4. Using the evidence available, each initiative was assessed against the individual criteria. These were analysed to determine an overall rating for:
   - evidence of progress achieved
   - level of confidence in the progress rating based on the strength of the evidence available
5. Availability of published reports on the initiative were recorded. Criteria for reports are:
   - published progress reports or annual reports
   - covering the period from the establishment of the initiative until August 2024
   - excludes blogs and online updates

2 As identified in the IEA's decarbonisation pathway: IEA (2021) 'Achieving Net Zero Electricity Sectors in G7 Members'. IEA Publications

3 The presence of designated secretariats is a strong driver of performance and is associated with 15 per cent higher performance. See Chan, S., Hale, T., Deneault, A. et al. (2022) 'Assessing the effectiveness of orchestrated climate action from five years of summits', Nature, 12, 628–633

Overarching ratings correspond to the following assessments:

Progress rating	Level of confidence
There is no published evidence of progress available yet (the initiative is being established but there is no evidence of progress in implementation or results as yet)*	Evidence on progress is either not available or where it is has no/limited detail on how results were assessed.
There is published evidence available that progress is underway (evidence of progress at activity/output level) or where there is some evidence of progress at outcome level, but it falls short of intended results.	Evidence on progress is available, with some detail on how results were assessed.
There is published evidence available that intended results are being achieved (evidence of progress at outcome level that aligns with intended results).	Evidence on progress is available, with clarity on how results were assessed.

*In some cases it was not possible, in the course of this study, to assemble evidence on progress to inform a rating.

6. Initiative summaries were developed for each of the shortlisted initiatives, providing a narrative summary on progress. These were sent out to the initiative secretariats for review, along with a request for any further evidence on progress that may have been overlooked.
7. A set of headline findings were developed drawing across the analysis of progress data. Upon this, a set of best practice criteria and core recommendations were developed. These were shared with key experts for verification ahead of publication.

As can be seen from these steps, our methodology focussed on the initiatives themselves and their reported progress. We have not undertaken research to look at progress at an ecosystem level or undertaken significant research beyond what the initiatives and organisations responsible for moving them forward have reported. We have discovered that some data needed for progress reporting by initiatives is publicly available, however to systematically identify data for each metric, for each commitment for every country, would require looking for hundreds of data points and was not practical as part of this initial assessment.

Limitations on initiative secretariats

As described above in the methodology, the existence of a dedicated secretariat is aligned with progress on commitments made, and thus the criteria employed in this assessment focuses on initiatives with dedicated secretariats. It is critical however to note that the vast majority of secretariats are dependent on their government members or on donor countries. If the governments making the commitments do not share timely and relevant information, if they do not engage collaboratively, and if they do not provide any financial support (at the least for core secretariat functions, and ideally also for implementation in countries), then the ability of secretariats to support progress and to regularly report on it, is likely to be severely limited. Philanthropic support has helped some initiatives however it has not been able to plug all gaps. Assessments should therefore be understood in this context. An assessment of lack of evidence of progress does not mean that no progress has been made, but that there is no publicly available information available on the initiatives' progress. This may be linked to the lack of resources, or a lack of prioritisation of reporting and communication.

New initiatives post-COP28

Since this research was completed, further initiatives have been launched post COP28. It was not possible to include these initiatives in the review process; however, we acknowledge these initiatives and the growth of effort in this space. New initiatives include:

- Africa Green Industrialisation Initiative
- Renewables and Efficiency Pledge
- Global Cooling Pledge
- NetZero Nuclear Pledge

Key findings

Our analysis culminated in five high level findings.

1 Multilateral power sector decarbonisation initiatives have received significant commitments from major economic powers

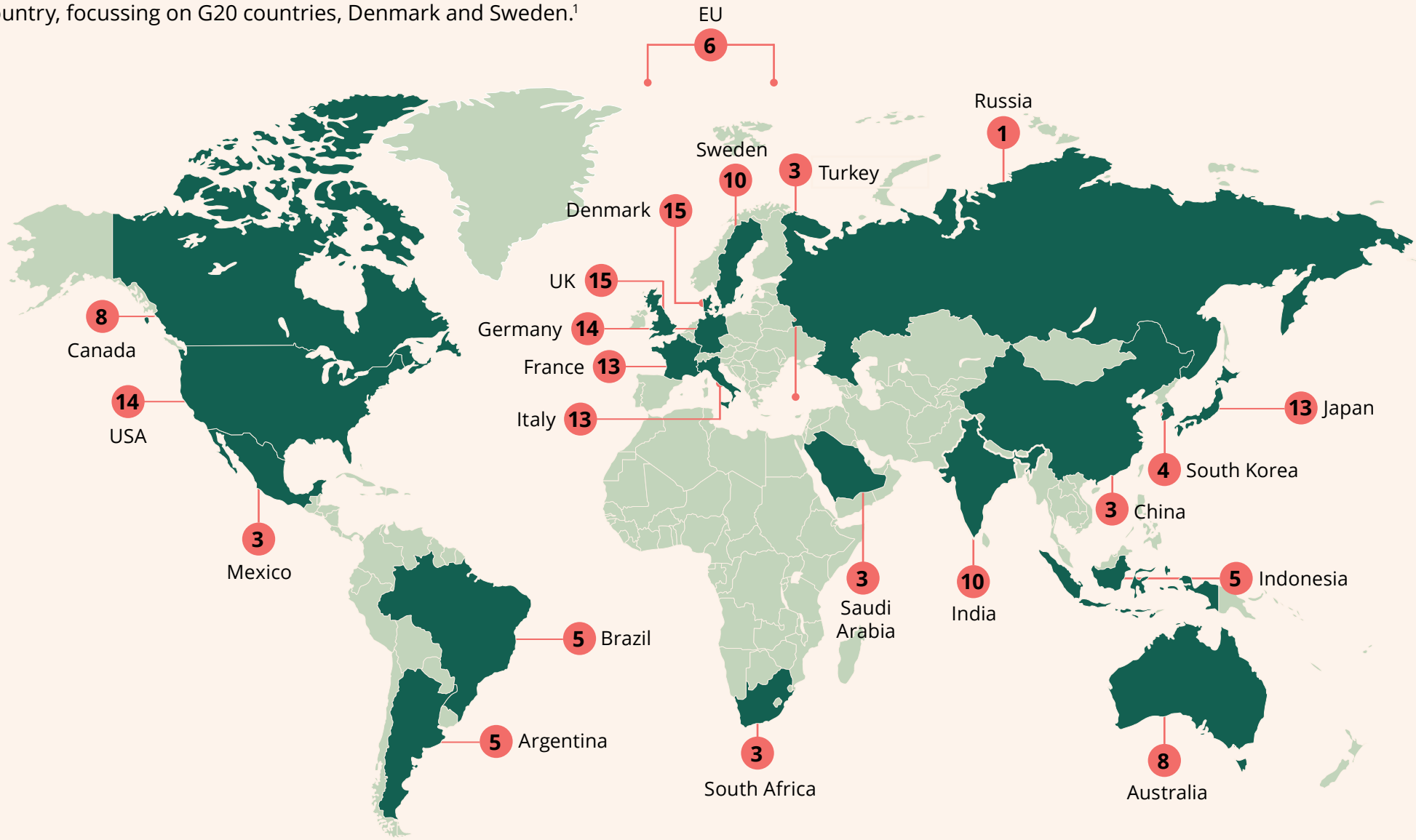
- The popularity of multi-lateral commitments to collaboration on power sector decarbonisation is reflected in the growing number of commitments that have been made (see Figure 1) and with the existence of government chairs for the initiatives (in addition to the role of the host). Initiative chairs are listed in Figure 2.
- We identified two 'types' of multi-lateral initiatives:

  1) implementation focused initiatives aiming to introduce and scale up technologies for renewable energy generation (e.g. Desert to Power and the Global Offshore Wind Alliance); and

  2) policy influencing initiatives, made up of political coalitions of governments seeking to support and commit to a low/zero carbon agenda (e.g. the Breakthrough Agenda and Powering Past Coal Alliance).
- There are high profile examples of commitments made, particularly under some recently established initiatives. For example, the Just Energy Transition Partnerships' International Partners Group (which is made up of eight G20 members plus Norway and Denmark), has agreed to mobilise funding for South Africa, Indonesia, Vietnam and Senegal to accelerate decarbonisation of the power system.

Landscape of G20 commitments by country

Figure 1 indicates the number of initiatives committed to per country, focussing on G20 countries, Denmark and Sweden.[1]



1 Denmark and Sweden included due to the relatively high number of multilateral initiatives they are supporting

Mapping of each G20 country to each initiative

Table 1. Mapping of each G20 country to each initiative

Argentina
Global Geothermal Alliance
GGI OSOWOG
ISA
Mission Efficiency
NZ World

Australia
BA
GGI OSOWOG
GOWA
ISGAN
ISA
MI: GPFM
SIDs LHI
SEAD

Brazil
Energy Compacts
GOWA
ISA
MI: GPFM
SEAD

Canada
AREI
BA
Energy Transition Council
ISGAN
JETP
Mission Efficiency
MI: GPFM

China
BA
ISGAN
MI: GPFM

Denmark
BOGA
BA
Cool Coalition
Energy Compacts
Energy Transition Council
GGI OSOWOG
GOWA
ISGAN
ISA
JETP
Mission Efficiency
MI: GPFM
PPCA
SEAD
SIDs LHI

France
AREI
BOGA
BA
Cool Coalition
Energy Transition Council
Global Geothermal Alliance
GGI OSOWOG
ISGAN
ISA
JETP
MI: GPFM
PPCA
SIDs LHI

Germany
AREI
BA
Energy Compacts
ETC
Global Geothermal Alliance
GGI OSOWOG
GOWA
ISGAN
ISA
JETP
MI: GPFM
PPCA
SEAD
SIDs LHI

India
BA
Energy Compacts
Energy Transition Council
Global Geothermal Alliance
GGI OSOWOG
ISGAN
ISA
Mission Efficiency
MI: GPFM
SEAD

Indonesia
Energy Transition Council
Global Geothermal Alliance
JETP
NZ World
SEAD

Italy
AREI
BOGA
BA
Energy Compacts
Global Geothermal Alliance
GGI OSOWOG
ISGAN
ISA
JETP
Mission Efficiency
MI: GPFM
PPCA
SIDs LHI

Japan
AREI
BA
Energy Compacts
Global Geothermal Alliance
GOWA
GGI OSOWOG
ISGAN
ISA
JETP
Mission Efficiency
MI: GPFM
SEAD
SIDs LHI

Mexico
Global Geothermal Alliance
ISGAN
PPCA

Russia
ISGAN

Saudi Arabia
GGI OSOWOG
ISA
MI: GPFM

South Africa
AREI
ISGAN
JETP

South Korea
BA
ISGAN
MI: GPFM
SEAD

Sweden
AREI
BOGA
BA
ETC
GGI OSOWOG
ISGAN
ISA
MI: GPFM
PPCA
SEAD

Turkey
BA
Global Geothermal Alliance
SEAD

UK
AREI
BA
Cool Coalition
Energy Compacts
Energy Transition Council
Global Geothermal Alliance
GGI OSOWOG
GOWA
ISGAN
ISA
JETP
Mission Efficiency
MI: GPFM
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US
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Energy Transition Council
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JETP
MI: GPFM
NZ World
PPCA
SIDs LHI

EU
AREI
BA
Energy Transition Council
ISGAN
JETP
MI: GPFM

* Please refer to Annex for full names of Initatives

2 Multilateral power sector initiatives generally align with the IEA's pathway and with the Paris Agreement, however levels of ambition vary.

The bulk of the major emissions reduction solutions included in the IEA's power sector decarbonisation pathway have a multilateral initiative. Key solutions include:

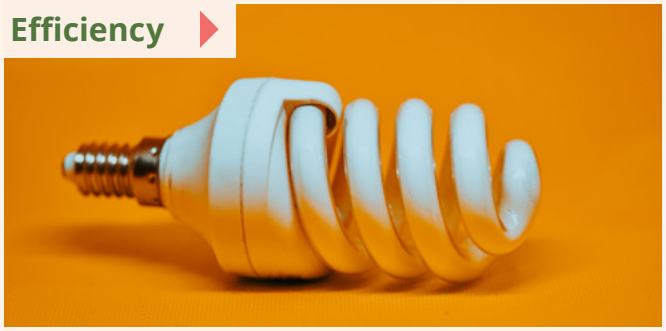
Solar

Wind

Storage

Grids

Efficiency



Geo-thermal

Hydro

Coal phase-out

Oil phase-out

Gas phase-out

- Hydropower is the only solution that has played a major role in decarbonising the power sector but does not have explicit government backing in the form of a commitment to scale deployment or cut emissions. There is however an international alliance. This has been included for completeness.
- Of the shortlisted initiatives, the majority state alignment with the Paris Agreement within their reports, though clarity on how the initiative aligns is only apparent in half of the shortlisted initiatives. For six initiatives, there is no mention of the Paris Agreement or how their objectives align with this. Stated alignment with the Paris Agreement does not however mean the same as equal ambition. We found differing levels of ambition but also differing level of clarity on this across the initiatives.
- Findings show consistent reporting for around half of the initiatives with a noticeable increase in reporting since 2021 (see Figure 2).

3 There is evidence of progress by individual initiatives; however, progress reporting is mixed. It is not currently possible to chart either the progress of every initiative towards their commitment, or the overall impact of the ecosystem of multilateral power sector initiatives.

There are good examples of evidence of progress and broad narratives supporting these.

- Our analysis of progress shows that results are being achieved at outcome level.
- Approximately half demonstrate that intended results are being achieved and evidence of progress is available.
- A third show progress is underway or demonstrate evidence of progress which falls short of intended results.
- For the remaining initiatives, there was insufficient evidence of progress yet, based on the published information available.
- Significant progress, identified as progress reported at outcome level, includes mobilising finance to support implementation (e.g. JETPs, Cool Coalition, Desert to Power), installed renewable energy capacity (e.g. Energy Compacts, RELAC, SIDs LI), retraction of traditional power sources (e.g. Powering Past Coal Alliance). Outcome level progress tends to be reported as part of a case study or specific example, rather than representing progress at broader initiative level. Alternatively, this level of reporting is in some cases based on market trends.
- Some initiatives have successfully reported on commitment progress (at an outcome level) and the activities and outputs of the initiative (e.g. Power Breakthrough Agenda, Global Geothermal Alliance, SIDS).
- Most of the progress that is reported is at output level and includes, for example, member increases, government declarations, knowledge exchange, policy development and early project identification and initiations.

4 There is a lack of clarity about commitments, how they will be tracked, and how the work of the initiative (including the secretariat) will help to contribute to the commitment.

The current lack of clarity is impeding a clear and comprehensive understanding of progress.

- Some commitments are limited in terms of their clarity and specifics. A narrative on broad brush commitments is generally clear and often linked to a framework of work areas to deliver on the commitment. However, there is often lack of clarity on commitment specifics, including on commitment timeframes, quantification and funding. This makes it difficult to track progress against the commitment.
- Compounding this, there is often limited clarity on how the work areas defined feed into the commitment overall – the north star might be clear, but how to achieve it (the theory of change) is not made explicit. This also makes it difficult to track progress against the commitment.
- It follows that there is a lack of progress reporting specifically against commitments, and inconsistency in doing this in a structured way. Initiatives with clear and quantified commitments generally evidenced more progress against activities and outputs, and sometimes outcomes.
- Whilst clarity is important, if the secretariat is inactive, understaffed or underfunded (various secretariats made this comment), then both progress and reporting can be weak or absent.
- It is also apparent that there is no shared reporting framework at ecosystem level to provide a consistent and coherent structure for initiatives to feed into to produce a global indication of progress to decarbonise the power sector.

5 There are enough good examples to create best practice in establishing clear commitments, operational structures, progress reporting, and verification.

- There are examples of established initiatives with clear commitments and associated theory of change:
  - Beyond Oil and Gas Alliance is a policy influencing and political coalition focused initiative, which sets a clear time-bound commitment of its members, in the form of signed declarations to commit to support the transition from coal and gas in alignment the Paris Agreement, with membership placed at three levels which outlines the extent of the commitment. It also sets out a clear approach to achieve this across four core objectives in order to raise government ambition on climate through high-level political dialogue, as well as policy and technical support. Associated activities and outputs are yet to be reported.
  - Desert to Power is an implementation focused initiative aiming to scale up renewable energy generation. It has clear quantified and timebound commitments in a specific region, defined as increasing the solar energy generation of 11 Sahel countries by 10 GW by 2030, with five broader objectives outlined and details on outputs and activities.
- There are examples of initiatives with transparent funding commitments and clear operational structures:
  - The Africa Renewable Energy Initiative has been explicit in their funding commitments, including funding made to the initiative's secretariat. It has established a clear structure and delivery mechanisms, including a detailed framework and action plan (however, we note that this information is dated back to 2017, and we have been unable to identify a more recent progress report).
- There are examples of adopted reporting structures and requirements, and in some cases reporting against change pathways:
  - The International Solar Alliance has clear reporting and accountability requirements and approaches in place. Governance and transparency about funding are strong. It discusses the use of specific indicators to support its progress measurement, it does not mention what these are.
  - The Energy Compacts report annually against its specific commitments, based on a survey sent out to its partners which provides aggregated values from the time of submission of the Compact to the latest available information. For each of its commitments they then provide a quantified update on progress overall and against the preceding year, supported by a narrative explanation. Despite relying on self-reported data, this provides a clear indication of change against commitment pathways.

Figure 2: Progress summaries for each initiative assessed

Conclusion

A clear and quantifiable picture of progress made by the ecosystem of government backed multi-lateral power sector initiatives is not available at present. A limited picture of progress presents challenges to understanding where to most effectively intervene or collaborate. As such, it is important to have clarity on where progress is right now. To develop a holistic picture of change, it is important to also look at what is happening beyond the individual initiative, at the ecosystem level.

It follows that it is not currently possible to chart expected progress against initiative commitments. In most cases, we would not expect to see 'linear progress', but an understanding of how, where and why progress is being made is necessary in order to estimate expected pathways to change, as well as timeframes or progress along this pathway, if a zero emissions transition is to be reached.

We offer recommendations at initiative and ecosystem level to address these challenges.

Recommendations

Recommendations at initiative level

- There are opportunities for initiatives to learn from good practice in design, management and reporting progress. Based on our analysis and findings, we propose a checklist of priorities for initiatives to ensure successful progress and progress reporting. We put these forward as key characteristics to consider when designing and reporting on a commitment. We recognise that some of these will require additional funding.
  - Initiative has a clear set of objectives, that align to an ecosystem level framework for progress (i.e. Paris Agreement and/or the Double Down, Triple Up campaign).
  - Initiative has a theory of change that sets out how the work of the initiative will contribute to the initiative commitment as well as value add in the overall ecosystem of multilateral power sector initiatives.
  - Initiative is transparent in its funding requirements and commitments, including funding allocated to the secretariat and to implementation of specific activities.
  - Initiative establishes clear operational structures, including a secretariat, with government backing and partnerships in place.
  - Initiative has a clear reporting framework, linked to its commitments, with articulated indicators of progress against pathways as well as value add in the overall ecosystem.
  - Initiative clarifies a robust approach to producing reliable evidence to report on progress, at initiative and ecosystem level.

It is important to note that the implementation of these would have a funding implication at a secretariat level. For these changes to be widely adopted additional funding will be needed for secretariats where this is not in place

Recommendation at ecosystem level

- Regular tracking of broader, ecosystem level progress and barriers to progress would be beneficial for understanding holistic progress. This should be augmented with further tracking of underlying trends as well as enabling and disabling factors. These could be used to inform initiative design and adaptation.
- A common goal, such as tripling renewables and doubling efficiency, could be a useful framing to inform ambition both for the setting and updating of commitments as well as for reporting. Assessment against the goal needs to be explained and evidenced, not just stated. Without this it will be impossible to assess if high ambition moderate progress is better than exceeding a low ambition target.
- A high-level framework could be designed to further guide initiative-level design, action and reporting; including a system for capturing progress data, that encourages regular, robust and systematic reporting and allows progress to be seen by others.
- This further coordination between initiatives on design and reporting could also help identify opportunities for synergies and sharing lessons on approaches and successful delivery mechanisms.

Annex

Progress summaries for each initiative assessed

Please note that the below assessments are based on publicly available information. Where there is no evidence of progress this does not mean that no progress has been made, just that we are not able to see this from initiative reports that are publicly available. Some of these initiatives have also recently started and have understandably not publicised progress.

We tried to contact each initiative to ensure that we had the lasted information but did not receive replies from all. Outreach was undertaken in April-May 2023 and again in November. The paper was shared as a draft for consultation through to January 2024. Publicly available data was reviewed again for any updates in August 2024.

Africa Renewable Energy Initiative (AREI) 2015

Solution focus

Wide range of renewable energy technologies including solar; wind; pico-, micro-, small-, and medium-scale hydro; modern biomass; geothermal, and marine; grid, mini and off-grid.

No. of govt. members

All 54 African governments signed. Donors committed $10bn: Canada, France, Germany, Italy, Japan, Netherlands, United States of America, United Kingdom, EU and Sweden.

Commitment

The commitment is clearly defined as "set to achieve at least 10 Gigawatt (GW) of new and additional renewable energy generation capacity by 2020 and mobilise the African potential to generate at least 300GW by 2030."

- Establishment phase (2015 to mid-2016): resource mobilisation, establishment of the governance and management structure and identification of Phase I projects that will be in the pipeline by mid-2016.
- Phase I (2016-2020): In cooperation with bilateral and global partners, assessments, preparations and critical enabling activities at the continental African level as well as in several pioneering countries. Achievement of at least 10GW new and additional generation capacity.
- Phase II (2020-2030): Ambitious, full-scale roll-out of nationally determined policies, programmes and incentives as initiated under Phase I. Continuous project identifications, assessments and revisions for further scaling up to at least 300GW new and additional generation capacity of renewable energy.

The commitments align with the Paris Agreement in so much as the initiative was launched at COP21 and established based on the UNFCCC call for the 'Establishment of a global partnership to accelerate the Energy Transformation required for a well below 2° Celsius World by supporting renewable energy feed-in tariffs and other incentives". (AREI, 2017)

Overall progress (outcomes to date vs commitments)

There is published evidence of progress at outcome level relating to the 10GW target being met by 2020. However, progress reporting on the initiative itself is only available at activity and output level. And there is no evidence on progress available on the initiative itself. The only progress report available dates back to 2017 - covering only the immediate establishment phase (not Phase I and Phase II delivery of the project pipeline). The 2021 IRENA Renewable Energy Markets Analysis state that "renewable energy deployment has grown, with renewables-based generation capacity on the continent rising 7% in the last decade (2010-2020). The largest additions were in solar energy. Much of the growth has been driven by large-scale projects in individual countries, particularly new utility-scale hydropower and solar PV projects. Regionally, Southern Africa led total renewable generation capacity in 2020 with 17GW, or around a third of Africa's total, followed by North Africa with 12.6GW, a fourth of the continental total." (IRENA, 2021)

Member progress

No data was found on member progress in the course of this study.

Sources

AREI (2017) Progress Report, Accessed September 2024

IRENA (2021) Renewable Energy Market Analysis. IRENA

Beyond Oil & Gas Alliance (BOGA) 2023

Solution focus

Managed phase out and just transition for oil and gas exit.

No. of govt. members

15 core members: Costa Rica, Denmark, France, Greenland, Ireland, The Marshall Islands, Portugal, Quebec, Samoa, Spain, Sweden, Tuvalu, Vanuatu, Wales, and Washington State. 2 Associate Members: California and New Zealand. 7 Friends of BOGA: Chile, Colombia, Fiji, Finland, Italy, Kenya, and Luxembourg.

Commitment

BOGA's core members are committing to end new concessions, licensing or leasing rounds and to set a Paris-aligned date for ending oil and gas production. With an initial US$10m from 2023 to 2025, the fund will focus on supporting governments in developing their vision of a 'beyond' oil and gas economy, and the analysis, plans, policies, and technical assistance required to define and deliver this. Objectives are aligned with the Paris Agreement.

Overall progress (outcomes to date vs commitments)

There was no published report on progress, however there were some updates available through the BOGA website indicating that progress is underway, with evidence at activity and output level. There were no available documents to establish progress against the commitment of the initiative itself. Evidence of progress at activity and output level includes the establishment of a fund that will support Global South governments that are exploring alternative development pathways beyond oil and gas. There has also been progress in terms of governments signing up to the different tiers of BOGA membership. There are some examples of member actions on phase out, including:

- The Portuguese Climate Law has prohibited the granting of new concessions for the prospection or exploitation of hydrocarbons in the national territory
- Sweden and Quebec have both passed legislation banning oil and gas extraction on their territories
- France is enacting legislation to enshrine a ban on overseas public finance for fossil fuel

Member progress

No data was found on member progress in the course of this study.

Sources

BOGA (2023) BOGA. Accessed August 2024

BOGA (2023) Why BOGA. Accessed November 2023

Cool Coalition 2019

Solution focus

Cooling systems including Sustainable Cold Chains; pathway to Net Zero; Cooling Finance; National Cooling Action Plans (NCAP); Private Sector Mobilisation; Cooling; nature-based Solutions for Cooling, and Urban Cooling.

No. of govt. members

26 country governments, as well as 46 civil society organisations, 46 private sector entities, 22 international and intergovernmental organisations, 6 academic stakeholders, and 13 city governments.

Commitment

The Cool Coalition supports governments and the private sector in taking, or firmly committing to, action to meet demands for cooling in a comprehensive manner through its three key pillars (knowledge exchange, action and advocacy). (Cool Coalition Secretariat, 2022). We found no data on funding commitments; thus it is unclear if funding commitments exist. The Cool Coalition aligns with the Paris Agreement, SDG7, and the Kigali Amendment.

Overall progress (outcomes to date vs commitments)

There is published evidence of progress at outcome level, and the club is achieving some intended results. Although there is some evidence on progress available, there is limited consistency in how it is captured. Some examples of country progress are captured, but not detailed consistently. Details are sometimes provided as case studies. For example a study on National Cooling study on National Cooling Action Plan (NCAP) development in Cambodia enabling access to climate finance to implement passive cooling solutions at national scale (p.7, Cool Coalition, 2022) and a case study of the food sector in Morocco (UNEP 2024). Outcomes captured in 2022 report include:

- 60 commitments were made at the Climate Action Summit. Commitments included governments promising to develop comprehensive national cooling plans, major companies in the cooling industry pledging to cut the emissions of their products, and donors providing new funding.
- As of 2021, 55 countries had committed to reduce their cooling emissions in either their enhanced Nationally Determined Contributions (NDCs) or long-term climate plans under the Paris Agreement. This is up from only six countries that included cooling in their NDCs in 2015.
- The progress report (Cool Coalition, 2022) highlights US$157 million unlocked as part of Green Climate Fund – World Bank Group finance facility. No data is publicly available on whether funding commitments have been honoured.

Member progress

The Cool Coalition supports governments and businesses to access resources and partnerships to support implementation. Examples of how the Coalition helped its members to progress include:

- In India, supporting implementation of the India Cooling Action Plan by bringing together a coalition of partners.
- In Cambodia it helped develop a comprehensive NCAP that explicitly includes action on passive cooling as a low-cost and high-potential albeit under-addressed area of cooling improvements and accessing climate finance. This in turn has enabled Cambodia to access climate finance to help implement passive cooling solutions at a national scale.
- In Ghana, joining forces with the national government and international experts to bring the import of illegal used cooling products to the attention of international actors.
- In Vietnam, streamlining comprehensive action on cooling with a range of international initiatives (including, Global Green Growth Initiative and Sustainable Energy for All).

- In Morocco, supporting the country's efforts to reduce emissions from the food cold chain and develop a net-zero roadmap for the agro-industry with the Energy Transition Council.
- In Egypt, supporting the scale-up of district cooling by joining forces with other initiatives, including United Nations Environment Programme OzonAction and District Energy Initiative.

Sources

Cool Coalition Secretariat (2022). The Cool Coalition: Jointly facing the challenge of a warming world: Overview and achievements to date. Cool Coalition

Cool Coalition (2024) Partners. Accessed August 2024.

United Nations Environment Programme (2024). Net Zero Roadmap. Agro-industry Morocco. UNEP. Accessed August 2024

CVF Marrakesh Vision (CVF MV) 2016

Solution focus

Renewables

No. of govt. members

58 country members. Please see full membership list on the CVF website. Ghana was chair from 2022 to 2024 and Barbados from September 2024.

Commitment

The initiative strives to meet 100 per cent domestic renewable energy production as rapidly as possible, while working to end energy poverty and protect water and food security, taking into consideration national circumstances. Additionally, the members pledge to help each other with their respective transition plans to transform energy, transport and other sectors, and together ensure support is made available in terms of capacity building, financing and technology. The commitments are defined and linked to a set of member actions under each commitment, but detail is lacking on the links to specific activities and outputs.

Quantitative funding commitments to finance the Marrakech vision of 100 per cent renewable energy specifically is unclear.

Commitments align to the Paris Agreement and the initiative sets out actions to progress towards the long-term goal through identified activities.

Overall progress (outcomes to date vs commitments)

Reporting demonstrates overall progress of each member country against NDC emission targets. The CVF commissioned a Traffic Light Assessment (2023) of 2030 emissions targets of the NDCs of parties to the Paris Agreement. This evaluates the alignment of every country's national emissions pledge (NDCs) for their compliance with the Paris Agreement; however, it does not assess delivery of actions to meet NDCs, including renewable energy commitments. CVF has 58 members and a very ambitious goal of 100 per cent domestic renewable energy production, a pledge that is conditional on finance. To understand progress would also require an understanding of any finance offered. However, we can see that the 100% renewable energy target is not met.

Member progress

No data was found on member progress against renewable energy targets in the course of this study.

Sources

CVF Vision. Accessed November 2023

CVF (2023). Traffic Light Assessment Report 2023. Accessed August 2024

Desert to Power (DtP) 2019

Solution focus

Solar

No. of govt. members

Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal and Sudan.

Commitment

The commitment is clearly defined. Consistent with the first of the African Development Bank's priorities — "Light Up and Power Africa"— the initiative's objective is to light up and power the 11 countries of the Sahel region. It aims to do so by increasing solar generation capacity by 10 GW via public and private projects, and by providing access to electricity for 250 million people via on-grid and off-grid solutions by 2030. Five priority areas of intervention include: 1) Expanding grid-connected solar power generation capacity; 2) Strengthening and expanding national and regional grids; 3) Deploying decentralised energy solutions; 4) Improving the financial and operational capacity of the power utilities; 5) Strengthening the enabling environment for increased private sector investments.

The initiative does not explicitly mention the Paris Agreement, but the overarching objective "[to] create the world's largest solar energy generation zone by harnessing the solar potential of the Sahel countries" aligns with the Paris ambition on renewable energy expansion.

Overall progress (outcomes to date vs commitments)

Intended results are being achieved with evidence of progress at outcome level. Evidence on progress is available and coherent, although it could benefit from further detail on how results were assessed.

The 2022 annual progress report states:

- The Desert to Power portfolio in 2022 stood at five investment projects. They amount to close to US$415 million in investments. The projects are set to provide approximately 102 MW of additional generation capacity and an aggregate number of close to 300,000 new connections. Collectively, the Desert to Power portfolio projects are expected to impact more than 2,350,000 people.
- In 2022, the African Development Bank approved two investment projects (one technical assistance programme and the Sahel G5 DtP Financing Facility) totalling US$720.5 million, set to provide approximately 548.5 MW on aggregate and expected to impact 735,5000 beneficiaries.

Member progress

The 2022 annual report states:

- Burkina Faso: DtP Roadmap identified targets for additional solar capacity of 168 MW by 2030. Three investment projects and two preparation studies are covered by the DtP portfolio. The focus topics are 1) grid-connected solar power generation capacity; 2) national and regional grids; and 3) decentralised energy solutions.
- Chad: DtP Roadmap identified targets for additional solar capacity of 70 MW by 2025 and 702 MW by 2030. Two investment projects, five preparation studies, and one technical assistance project are covered by the DtP portfolio. The focus topics are tthe same as for Burkina Faso, as well as strengthening power utilities' capacity and private sector investment enabling environment.
- Mali: DtP Roadmap identified targets for additional solar capacity of 399 MW by 2025 and 977 MW by 2030. Activities in 2022 included a study on integrating renewable energy into the grid.
- Mauritania: DtP Roadmap identified targets for additional solar capacity of 335 MW by 2030. One investment project, one preparation study, and one technical assistance project are covered by the DtP portfolio. They are aiming to: 1) strengthen and expand energy grids; 2) deploy decentralised energy solutions; and 3) improve financial and operational capacity.

- Niger: DtP Roadmap identified targets for additional solar capacity of 386 MW by 2030. One investment project and several studies are covered by the DtP portfolio. They are aiming to expand grid-connected solar power generation capacity.

Sources

African Development Back Group (ADBG) (2022) Desert to Power: Making a Difference. ADBG

African Development Bank Group (2023) Desert to Power Initiative: 2022 Annual Report.

African Development Bank Group (2022) Desert to Power Progress Report 2021. ADBG

Energy Compacts 2021

Solution focus

All energy sources and technologies are eligible including digital technology, manufacturing, utilities, telecommunications and retail.

No. of govt. members

32 Member States (see Energy Compact Registry) as well as 21 UN and intergovernmental organisations; 15 multi-stakeholders; 16 NGOs; 1 philanthropic organisation; 2 academic institutions; 8 CSO and youth organisations; 52 private sector members; 9 local & regional governments.

Commitment

Energy Compact commitments from governments include renewable deployment, cutting fossils and scaling finance. Finance committed to be deployed by 2030 amounts to over US$1.3tn, including:

- Finance and investment: Member States – US$715bn; private sector – US$581bn
- Enhanced electricity access: Member States – US$418m ; private sector – US$279m
- Enhanced clean cooking access: Member States – US$315m; private sector – US$14k
- Clean energy capacity to be deployed: Member States – 527GW; private sector – 658GW
- Energy Savings to be Achieved: Member States – 59,753 Gigawatt hours (GWh)
- Catalytic partnerships (leveraged outcomes): Over US$2.5bn in enhanced energy access (people). Over US$1.5tn finance investment.

The initiative is clearly aligned with Paris Agreement goals and Sustainable Development Goal 7.

Overall progress (outcomes to date vs commitments)

There is published evidence of progress at outcome level that aligns with intended results. Annual progress reports provide a quantified indication of progress against each of its commitments based on aggregate reporting from members. Despite relying on self-reported data, this provides a clear indication of change against commitment pathways.

- The 2023 Annual Progress Report (Energy Compacts, 2023) tracks progress against five key components: electricity access; clean cooking access; increasing share of renewables; energy savings; and clean finance.
- Most outcomes achieved are on track in alignment with the commitment pathway according to the 2023 Progress Report. However, there is the need for greater ambition against each outcome area, i.e. to achieve their core commitments they need to secure and achieve a greater level of progress.

Member progress

- In Malawi, the country intends that all households and institutions have access to climate-friendly, energy-saving, or cleaner cooking solutions and can transition to technologies of choice.
- In the past year, learnings from Energy Compact implementation include the need to build capacity for domestic manufacturing of various energy efficiency technologies, as well as a robust monitoring and evaluation system for reporting purposes.

Sources

Energy Compacts (2023) Annual Progress Report 2023. UN Energy Compacts.

United Nations Energy Compacts Registry. Accessed August 2024

Energy Compacts. (n.d.) Malawi Energy Compact.

Energy Compact (2022) Energy Compact 2022 Annual Progress Update, July.

Energy Compact (2022). Energy Compacts Annual Progress Report 2022, September.

Energy Transition Council (ETC) 2021

Solution focus

Focus on power sector, multiple sources and technologies.

No. of govt. members

The Energy Transition Council is co-chaired by the UK and Philippines. Donor governments: Canada, Denmark, France, Germany, Netherlands, Norway, Sweden, UK, US, the European Commission. Partner countries: Bangladesh, Egypt, India, Indonesia, Kenya, Laos PDR, Morocco, Nigeria, Pakistan, Philippines, Vietnam.

Commitment

"The dialogue supports collaboration with partner countries to find, coordinate, and implement solutions more rapidly, including technical assistance through the Council's Rapid Response Facility. The Council focuses on a range of thematic areas to accelerate the clean energy transition, including distributed and large-scale renewables; green grids; and energy efficiency" (Energy Transition Council Secretariat, 2022a).

The commitment is clearly outlined with workstreams identified to deliver on the commitment. However, it does not include specifics and is not quantified.

The commitment is aligned with the Paris Agreement through the Glasgow Power Breakthrough Agenda "to make clean power the most affordable and reliable option for all countries to meet their power needs efficiently by 2030." (UK Government Policy Paper 2021)

Overall progress (outcomes to date vs commitments)

There is some indication of good progress on outcomes overall – with progress on some outcomes of partner countries included in progress report and annual report (Energy Transition Council Secretariat, 2022a; 2023) the extent to which results are attributable to the Energy Transition Council is not clarified, nor is the overall outcome quantified. Achievements reported include: 30+ Rapid Response Facility technical assistance requests in energy efficiency, just transition and clean cooking across 11 Energy Transition Council countries with 10 more in the pipeline and responses to 27+ delivery partners with more in the pipeline. This resulted in significant clean energy commitments made by Council partner countries, including through COP26 Global Coal to Clean Power Statement (Energy Transition Council, 2022b). (Energy Transition Council, 2022b 2023).

Member progress

Partner countries have been taking ambitious action to drive forward progress in the power sector with Energy Transition Council support through the dialogue process and the Rapid Response Facility. Country progress includes:

1. **Bangladesh**: Reduced 39% of new coal capacity; making progress to update their 2016 Integrated Power Sector Master Plan to increase clean energy ambitions; set new targets to produce 15% of electricity by clean energy by 2030 and 100% by 2050; reduced pre-construction coal pipeline by a further 6 GW since January 2022.
2. **India**: Updated NDCs to achieve about 50% cumulative electric power installed capacity from non-fossil-fuel-based energy resources; a net decrease of 3 GW in coal power pre-construction capacity; committed to a phased transition to clean energy and set ambitious renewable energy targets for 2030; developing Indian Carbon Market Carbon Credit Trading Scheme.
3. **Egypt**: Updated NDCs in June 2023 to accelerate target to reach 42% installed capacity of renewable energy by 2030; launched its 2050 National Climate Change Strategy; Joined Global Methane Pledge.
4. **Indonesia**: Updated NDCs; launched the Comprehensive Investment and Policy Plan for the Indonesia Just Energy Transition Partnership; launched Energy Transition Mechanism Country Platform.

5. **Kenya**: New president reaffirmed ambitious pledge to reach 100% renewable energy by 2030; First African country to join as a 'friend' of the Beyond Oil and Gas Alliance.
6. **LAO PDR**: Made progress on its Net Zero 2050 commitment by updating its national power development plan 2020-2030.
7. **Morocco**: Became coal pipeline-free; formally revising its energy transition strategy; committed to encourage greater cross-country collaboration to reduce global emissions by 2030 in joint declaration with the UK in May 2023.
8. **Nigeria**: Implementing the Nigeria Energy Transition Plan which seeks to mobilise ~$10 billion to deliver on energy transition policies.
9. **Pakistan**: Reduced 24% of new coal capacity; approved national solar initiative to begin implementation of 10,000 MW of solar power projects.
10. **Philippines**: Planned coal capacity has nearly halved since July 2021; extended moratorium on new coal-fired plants; amended its foreign investment act to increase the flow of green financing; approved 42 offshore wind contracts; target of 35% renewable energy in the electricity mix by 2030 driven by new renewable energy auctions scheme.
11. **Vietnam**: Announced JETPs to mobilise an initial us$15.5 billion of public and private finance over the next 3-5 years; updated NDCs; shelved eight pre-construction coal power projects with a total of 11 GW capacity.

Sources

Energy Transition Council Secretariat (2022a) Energy Transition Council Progress in 2022, Energy Transition Council

Energy Transition Council (2022b) Infographic. Accessed November 2023

UK Government (2023) 'COP26 Energy Transition Council: 2022 Strategic Prioritys', Policy Paper. Accessed November 2023.

UK Government (2023) 7th Energy Transition Council Ministerial Dialogue: chair's summary, UK Government. Accessed August 2024

Energy Transition Council Secretariat (2023) Energy Transition Council Annual Report 2023, Energy Transition Council.

Global Geothermal Alliance 2015

Solution focus

Geothermal

No. of govt. members

Backed by 55 country members across the world. There are also 62 partners (non-country members) of the Alliance.

Commitment

Commitment stipulated in the Joint Communiqué is clearly defined as an "aspirational goal to achieve a five-fold growth in installed capacity for geothermal power generation and a three-fold growth in geothermal heating and cooling by 2030, compared to 2014 levels" (IRENA, 2015).

The Joint Communiqué announced during COP 21 in Paris 2015 clarifies the objective that the Alliance will contribute to efforts to achieve the Sustainable Energy for All target to double the share of renewable energy in the global energy mix by 2030 (IRENA, 2015). Since then, the Global Geothermal Alliance is assessing how they can incorporate and align with the goal to triple up renewable power as per the recent COP28 presidency, Global Renewables Alliance, and International Renewable Energy Agency report which sets out further increased geothermal energy targets.

Overall progress (outcomes to date vs commitments)

There is some published evidence of the initiative achieving progress at outcome level. Although evidence on progress is available, it lacks detailed clarity into how results were assessed. That said, the Global Geothermal Alliance market and technology assessment and website 'region and country profiles' provide details on overarching trends and outcomes. The Alliance highlights the following positive trends (Global Geothermal Alliance, 2023a):

- The Alliance has been supporting countries' efforts to create enabling frameworks for geothermal energy, particularly in heating and cooling, through dialogue and capacity building.
- The installed capacity for geothermal electricity has continued to grow over the years, albeit at a modest rate. A multi-stakeholder approach can support the accelerated deployment of geothermal energy.
- Direct use is an important component of geothermal utilisation with applications in heating and cooling of buildings, bathing and swimming, greenhouse heating, aquaculture heating and industry.

The IRENA World Energy Transitions Outlook 2023 report shows that there is some progress in direct use of geothermal energy consumption, but they are not yet close to reaching targets for 2030 and 2050. However, geothermal energy consumption is growing, and is over halfway to the target for 2030 indicating progress at outcome level (IRENA, 2023a).

Member progress

Information on the situation in all countries regarding geothermal energy is available on the Alliance's website and in published renewable energy statistics (2024), but no updates on progress are attributed to the Global Geothermal Alliance initiative.

Sources

Global Geothermal Alliance (2023a) Tap Into Geothermal Insights And Experience. Accessed September 2024

IRENA (2015) Joint Communiqué on the Global Geothermal Alliance. Accessed November 2023

IGA (2023) Global Geothermal Market and Technology Assessment. IRENA

IRENA (2022) Renewable Power Generation Costs. IRENA

IRENA (2023a) World Energy Transitions Outlook 2023, IRENA

IRENA (2023b) Renewable Energy and Jobs Annual Review. IRENA

Irena (2024). Renewable Energy Statistics 2024. IRENA

Global Offshore Wind Alliance (GOWA) 2022

Solution focus

Offshore wind

No. of govt. members

17 country members: Australia, Belgium, Colombia, Denmark, Germany, Ireland, Japan, Netherlands, Norway, Portugal, Spain, United Kingdom, United States of America, Romania, Saint Lucia, Brazil and Panama in addition to the State of Victoria and the European Commission. Six private sector members, three inter-govermental organisations and one non-governmental organisation.

Commitment

The Global Offshore Wind Alliance (GOWA) has the ambition to create a global driving force for the uptake of offshore wind through political mobilisation and the creation of a global community of practice. The aim of GOWA is to contribute to achieving a total global offshore wind capacity of a minimum of 380GW by 2030, with 35GW on average each year across the 2020s and a minimum of 70GW each year from 2030" (IRENA, 2023).

There is clear quantified commitment and objectives to drive global offshore capacity by 2030 and 2050 but not yet defined as activities and outputs.

Funding commitments are unclear, however there is mention of action to drive progress on offshore wind deployment through blended finance in some countries, involving multilateral support to de-risk investments. (IRENA, 2023).

There is clear alignment to the Paris Agreement. GOWA also uses the World Energy Transitions Outlook: 1.5C Pathway as their foundational basis.

Overall progress (outcomes to date vs commitments)

There is published evidence of progress at outcome level, however progress falls short of the intended results. World Forum Offshore Wind reported that in 2023 there was 9.8 GW of new offshore wind and in 2022 9.4 GW of new offshore wind. This significantly misses the goal of 35GW each year. Similarly, the Global Wind Energy Council's (GWEC) Global Wind Report 2023 reports that "8.8 GW of new offshore wind was fed into the grid last year, bringing total global offshore wind capacity to 64.3 GW by the end of 2022. New additions were 58% lower than the bumper year of 2021 but still made 2022 the second highest year in history for offshore wind installations". Although there is some evidence of wider progress against the commitment under the GWEC Global Wind report 2023, there are no available documents to establish progress published on the initiative itself.

Member progress

No data was found on member progress in the course of this study.

Sources

IRENA (2023) GOWA. Accessed August 2024

World Forum Offshore Wind (2024) Global Offshore Wind Report 2023. WFO. Accessed August 2024

World Forum Offshore Wind (2023) Global Offshore Wind Report 2022. World Forum Offshore Wind

Global Wind Energy Council (2023) Global Wind Report 2023. Global Wind Energy Council.

Green Grids Initiative - One Sun One World One Grid (GGI OSOWOG) 2021

Solution focus

Grids (including smart and micro) and renewables

No. of govt. members

One Sun Declaration endorsed by 90 countries. Full list of member countries on the UK Government web archive.

Commitment

The Green Grids Initiative (GGI) aims to accelerate the construction of the new infrastructure needed for a world powered by renewable energy. That infrastructure includes massively expanded renewable energy generation capacity in energy-rich locations, connected by continental grids. It includes smart grids connecting millions of solar panels and charging points for electric vehicles, and micro-grids for rural communities and to ensure resilience during extreme weather. The commitment is not linked to specific outputs or activities. The initiative aligns to the Paris Agreement.

Overall progress (outcomes to date vs commitments)

There is some reporting on activities in the Breakthrough Agenda Report (IEA, 2023) and a December 2023 update on the website showing progress is underway. There are no published reports on the initiative, however, and a lack of insights on how results were assessed.

Member progress

Members of the GGI, comprising state and non-state actors, met in March 2023 to build consensus on a set of priority projects. These include the Principles and Protocols for Interconnectors, which uses case studies and best practices from Europe, including experience from the North Sea, to provide actionable advice for policy makers on the development of interconnectors. The principles are initially aimed at the Asia-Pacific region but should be universally applicable. GGI has developed an Electricity Transition Playbook available on the Open Learn platform.

Three working papers have been published: Mobilising Climate Finance for Grids (2023), Knowledge exchange for regulators in SIDS (2023) and Climate Finance for Grid Investments in Emerging and Developing Economies (2021). In addition, a blog series by CGI members details the critical importance of grids for the energy transition.

Sources

Green Grids Initiative (2023) About Green Grids Initiative. Accessed August 2024

IEA (2023) Breakthrough Agenda Report 2023. Accessed August 2024

UK Government web archive (2023) One sun declaration. Accessed November 2023

International Hydropower Association (IHA) 2022

Solution focus

Hydropower

No. of members

Over 100 organisations operating in more than 120 countries, International Hydropower Association (IHA) members include hydropower developers, operators and manufacturers committed to the delivery of sustainably hydropower under the guidelines of the San Jose Declaration.

Commitment

Commitment is defined; however, it does not include specifics and is not quantified. The commitment is not explicitly linked to specific outputs or activities, but progress reports point to a set of key priority areas of work. IHA's mission is to advance sustainable hydropower. IHA's broader objectives are:

- to be the global voice of sustainable hydropower.
- to increase investment in sustainable hydropower by engaging with global policymakers, financial decision makers and the public with strong, clear and engaging evidence-based advocacy.
- to position sustainable hydropower as a clean, green, modern and affordable solution to climate change and energy security.

There is no mention of the initiative aligning to the Paris Agreement.

Overall progress (outcomes to date vs commitments)

Although there is evidence of progress at outcome level, progress falls well below intended results: "annual additions average 22 GW of new hydropower capacity, which is perilously short of the 45 GW per year that is needed if we are to keep the global temperature rise below 1.5°C and reach net zero emissions by 2050" (IHA, 2022). There is some published evidence at outcome level across priority areas, although it is somewhat inconsistent with varying level of detail. It is unclear the level to which this aligns with the commitment pathway due to the commitment not being specific or quantified. The Annual Report 2021-22 and more recently the 2024 World Hydropower Outlook, provide updates on outputs against each priority. There is little detail on how results were assessed and it is unclear the level to which this aligns with commitment pathway as commitments are not specific or quantified.

Member progress

2023/24 year in progress:

- 69 sustainability disclosure form initial submissions
- All but 12 have a sustainability policy
- First hydropower projects certified under the Hydropower Sustainability Standard with more to follow
- Four have legacy projects impacting UNESCO World Heritage Sites
- 20 have projects in protected areas and 6 provide services to projects in these areas
- 19 dropped projects they had been considering due to sustainability concerns

Sources

International Hydropower Association (n.d.) Annual Report 2021-2022. International Hydropower Association

International Hydropower Association (n.d.) Annual Report 2022-2023. International Hydropower Association

International Hydropower Association (n.d.) 2024 World Hydropower Outlook. Opportunities to advance net zero. International Hydropower Association

International Hydropower Association (n.d.) Annual Report 2023-2024 International Hydropower Association

International Smart Grid Action Network (ISGAN) 2010

Solution focus

Smart grids

No. of govt. members

26 countries and European Commission: Australia, Austria, Belgium, Canada, China, Denmark, Finland, France, Germany, Ireland, India, Israel, Japan, Mexico, Netherlands, Norway, Russia, Singapore, South Africa, South Korea, Spain. Sweden, Switzerland and United Kingdom. Co leads: Italy, India and United States.

Commitment

The International Smart Grid Action Network (ISGAN) strives for the accelerated development and deployment around the world of smarter, cleaner electricity grids—as in "smart grids." (ISGAN , 2022). ISGAN is especially focused on clarifying and promoting specific aspects of the smart grid where governments have policy or regulatory authority, expertise, convening power or other leverage. Together, ISGAN's activities help to show and promote the overall significance of what has been done globally in the field of smart grids, to identify forthcoming challenges, and to help realise emerging opportunities (ISGAN, 2023).

Alignment with the Paris agreement is not mentioned.

Overall progress (outcomes to date vs commitments)

Progress is underway, with evidence of progress at activity/output level. The 2021 Annual Report details activities and outputs achieved, and the 2022 Annual Report aligns activities to operational priorities, organised by Working Group and reports on main highlights. Evidence on progress is therefore available and coherent, but overall lacks detail on how results were assessed.

Member progress

The 2022 smart grid country survey report uses country by country data but aggregates it so country progress is invisible.

Sources

Clean Energy Ministerial (2023) Who we are - Clean Energy Ministerial. Accessed November 2023

ISGAN (2023) International Smart Grid Action Network. Accessed November 2023

ISGAN (2022) ISGAN Annual Report 2021. ISGAN

ISGAN (2023) ISGAN Annual Report 2022. ISGAN

International Solar Alliance (ISA) 2015

Solution focus

Solar power (mini-grids, utility scale, rooftop etc.)

No. of govt. members

116 countries signed the framework agreement.

Commitment

The International Solar Alliance (ISA) is guided by its 'Towards 1000' strategy which aims to mobilise US $1,000bn of investments in solar energy solutions by 2030, while delivering energy access to 1,000 million people using clean energy solutions and resulting in installation of 1,000GW of solar energy capacity. Finance arrangements for the secretariat are set out in the ISA framework agreement. The Paris Agreement alignment is not mentioned.

Overall progress (outcomes to date vs commitments)

There is published evidence that shows progress at outcome level. Annual reports are available from 2019 onwards and report on progress against priority areas. Reporting is clear and country reporting uses a variety of world indexes and third-party information. Although evidence on progress is available and coherent, it does not include an explanation on how results of this initiative were assessed in relation to global progress towards initiative commitments. There is no information reported on initiative-linked activities, outputs, and outcomes.

A full-scale edition of the Ease of Doing Solar (EoDS) report, featuring 80 countries, was released in 2020 after a pilot version of EoDS 2019 with only four countries. With the addition of 18 new members to ISA, EoDS 2021 covered 98 countries. In 2022, the number of member countries increased to 107. EoDS's goal is to monitor, acknowledge, and encourage the development of the solar ecosystem in ISA's member nations. All member countries are analysed on a framework that examines the countries across seven key drivers: macroeconomy, policy enablers, technological feasibility, market maturity, infrastructure, financing, and energy imperatives.

Owing to strong solar potential, enabling policy ecosystem, mature markets, and robust power infrastructure countries have been classified in the following way:

- 28 countries have been identified as Achievers.
- 50 countries have been identified as Influencers
- 22 countries as Progressive, and
- 7 countries as Potential.

Member progress

Key insights from the assessment of ISA member countries, across the four geographical regions ('Africa', 'Asia &Pacific', 'Europe and others', 'Latin America & Caribbean') highlighted the following member progress:

- In Africa (44 countries) – leading performers in the region have set renewable energy targets up to 2035 and aim to electrify their transport fleet by resorting to renewable energy sources.
- In Asia & Pacific (25 member countries) - high levels of solar irradiation and an enabling macroeconomic environment are driving the growth of solar adoption in the region.
- In Europe and others (13 member countries) - the countries in the region perform exceptionally well on drivers such as policy enablers, market maturity and macroeconomy related aspects. However, the technological feasibility scores (related to natural potential of solar) are lower than countries from other regions.
- Latin America & Caribbean (25 Member countries) - like Africa, Latin America & Caribbean regions have also been bestowed with high solar irradiation.

Sources

International Solar Alliance. International Solar Alliance. Accessed November 2023

International Solar Alliance (n.d.) Ease of Doing Solar. PowerPoint Presentation, ISA

International Solar Alliance. Annual Report 2023; Annual Report 2022; Annual Report 2021; Annual Report 2020; Annual Report 2019. Accessed August 2024

Just Energy Transition Partnership (JETP) 2021

Solution focus

Energy transition, from fossil fuels to renewable sources.

No. of govt. members

Indonesia, Senegal, South Africa and Vietnam are the beneficiaries of the partnerships. Backed by the International Partners Group (IPG) which initially included the EU, France, Germany, UK, US, and has since expanded to include Japan, Canada, Italy, Norway, the Netherlands and Denmark.

Commitment

South Africa: The initiative has the clear commitment of IPG to mobilise US$8.5bn for the first phase of financing through various mechanisms. It aims to "accelerate the decarbonisation of South Africa's economy, with a focus on the electricity system, to help it achieve the ambitious goals set out in its updated NDC emissions goals" and expects to prevent "up to 1-1.5 gigatonnes of emissions over the next 20 years", while supporting the transition to a low emission economy (UK Government, 2022a).

Indonesia: The Indonesia Just Energy Transition Partnership (JETP) launched in 2022 will mobilise US$20bn during the following three to five years to accelerate a just energy transition. US$10bn of public money will be mobilised by the IPG members and at least US$10bn of private finance will be mobilised and facilitated by the Glasgow Financial Alliance for Net Zero (GFANZ) Working Group. The UK also committed to support delivery of the partnership, including through a US$1bn World Bank guarantee. This facility will allow the Government of Indonesia to extend their borrowing on affordable World Bank terms by up to US$1bn.

Vietnam: The Political Declaration sets out a financial package of US$15.5bn, with contributions from both the public and private sector. The JETP will support Vietnam technically and financially to deliver on its ambitious net- zero 2050 goal, to meet greenhouse gas emissions targets faster and to transition away from fossil fuels to clean energy. The Partnership supports Vietnam to bring forward and lower peak emissions and coal capacity targets to 2030, five years earlier than projected. The JETP will support renewable electricity generation towards reaching at least 47 per cent.

Senegal: The IPG will mobilise €2.5bn (public and private finance) in the next three to five years (starting 2023) to support the JETP, which targets 40 per cent renewable energy capacity deployment by 2030 and will support improvments to energy access. JETP has clear alignment with the Paris Agreement, designed to support countries' enhanced NDCs.

Overall progress (outcomes to date vs commitments)

South Africa has some limited evidence that progress is underway at the activity/output level, but there is no available evidence on Indonesia's progress and there is limited detail on how results were assessed.

South Africa: There was no data on outcomes and limited data on outputs. A JET Investment Plan and a separate Implementation Plan have been developed and policy actions and developments announced by the president of South Africa which align with commitment, but it is difficult make an assessment and to track progress against the commitment due to limited information and timelines.

Indonesia: There was limited data on outputs available. A Comprehensive Investment and Policy Plan, setting out finance and policy measures, was recently published.

Vietnam and Senegal: No data yet available.

Member progress

South Africa: In 2022, the President of South Africa announced interventions to address its electricity supply crises including accelerated procurement of new generation capacity, enablement for a large increase in private investment in generation capacity, enablement for business and households to invest in rooftop solar and further steps in the transformation of the electricity sector.

Indonesia: A Comprehensive Investment and Policy Plan, setting out finance and policy measures was published by the UK Government in November 2023. Vietnam Just Energy Transition Partnership: joint statement. Incremental policy reforms are also being advanced, including tariff reforms for renewable energy, updates to the Power Purchase Agreement framework, a prohibition on new on-grid coal fired power plants, and improvements to the Local Content Requirements for solar panels.

Vietnam: A JET Resource Mobilisation Plan was launched in December 2023. The Plan includes an assessment of priority investments, and identifies priority policy actions and regulatory reforms to work towards JETP targets.

Senegal: Investment Plan pending 2024.

Sources

UK Government (2021) Joint Statement: International Just Energy Transition Partnership. UK Government

UK Government (2022a) Twelve-month update on progress in advancing the South Africa Just Energy Transition Partnership. Corporate Report. Accessed August 2024

UK Government (2022b) Indonesia Just Energy Transition Partnership Launched at G20. Press Release, Accessed August 2024

UK Government (2023) International development in a contested world: ending extreme poverty and tackling climate change. A White Paper on International Development. UK Government

UK Government (2023) Vietnam's Just Energy Transition Partnership: political declaration. Policy Paper. Accessed August 2024

International Partners Group (2023) Political declaration for a JETP with Senegal

Least Developed Countries Renewable Energy and Energy Efficiency Initiative (LDC REEEI) 2010

Solution focus

Renewable energy and energy efficiency.

No. of govt. members

Joint initiative by all 46 LDCs.

Commitment

Under the mandate of LDC Ministers, the LDC REEEI for sustainable development aims to support LDCs to achieve their development aspirations by addressing three overarching goals:

- 100 per cent access to sufficient, affordable, modern and renewable energy by all citizens in LDCs by 2030;
- 100 per cent electricity from renewable energy sources in all LDCs by 2050 that caters to all needs of their citizens, social services and industries; and
- 100 per cent utilisation of energy efficiency potentials along the value chain through full implementation of best practice measures and planning by 2040.

The initiative is aligned with the Paris Agreement. It recognises the importance of energy for development and seeks to enable the LDCs to achieve their Sustainable Development Goals and align these efforts with the Doha Programme of Action and the Paris Agreement. The initiative is an overriding strategic framework for driving transformative change across sectors and a platform for sharing experiences and disseminating knowledge to reach universal energy access while accelerating the transition to renewable energy and energy efficiency in all LDCs.

Overall progress (outcomes to date vs commitments)

It was not possible in the course of the study to assemble evidence indicating overall progress. However, LDC REEEI have indicated that progress is underway at activity level. There were insufficient available documents to establish progress of the initiative. LDC REEI has 46 members and a very ambitious goal. Although there are published findings highlighting some progress of Landlocked LDCs in the area of Renewable Energy and Energy Efficiency overall (IRENA, 2022), to understand progress in the absence of a consolidated report from LDC REEEI requires significant analysis of 46 countries. We can however see that the 100 per cent targets have not been met.

The initiative is in an acceleration and consolidation stage after delays induced by Covid-19 and funding constraints. Current activities include support for and development of 100 per cent renewable energy scenarios for front-runner countries, comprehensive analysis and framing of what 'just transition' (Just Transition Africa, 2023) means for African and Least Developed Countries and initiation of an LDC-specific programme on electrification of cooking in collaboration with the Global Network on Sustainable Energy Centres.

Member progress

Indicating progress since COP26 in November 2021, all LDCs have submitted Nationally Determined Contributions (NDCs) for the first time, to work towards achieving net-zero emissions globally by 2050. This includes renewable energy as a mitigation measure. In LDCs, the share of installed grid-connected renewable energy capacity in total final energy capacity reached 44 per cent in 2021, a rise from 37 per cent in 2001.

Sources

LDC-REEEI (2023) LDC-REEEI. Accessed November 2023

Sokona et al. (2023). Just Transition: A Climate, Energy and Development Vision for Africa. Independent Expert Group on Just Transition and Development

IRENA (2022) Scaling Up: Renewables in landlocked developing countries. IRENA

Mission Efficiency (formerly 3% Club) 2019

Solution focus

Transition to energy efficiency.

No. of govt. members

16 country members: Argentina, Canada, Colombia, Denmark, Estonia, Ethiopia, Ghana, Honduras, Hungary, India, Ireland, Italy, Kenya, Portugal, Senegal and United Kingdom.

Commitment

Mission Efficiency is a collective of actions, commitments and goals from a coalition of governments, organisations and initiatives that come together to accelerate the transition towards energy efficient economies worldwide. The mission aims to drive progress on energy efficiency through:

1. Elevating energy efficiency in personal, organisational and global agendas - a clear narrative that supports progress, convening partners, matching solution offers and advocating for energy efficiency.
2. Supporting energy efficiency through strategic support and technical assistance by partners for progress in countries on key issues, in high impact sectors, across multiple sectors or economy wide across all sectors.
3. Investing in energy efficiency through project implementation funding for coordinated action through loans, grants and incentives for infrastructure and projects by countries, funds and financial institution partners.

The initiative aligns with the Paris Agreement, with a commitment to double the rate of improvements on energy efficiency every year until 2030.

Overall progress (outcomes to date vs commitments)

It was not possible in the course of the study to assemble evidence indicating overall progress, as consolidated reporting or documentation is not available on the initiative itself. The pillars of delivery are established with indicative types of activities, however, there is no information presented on how this will be measured.
We note that although there are no reports available, some extrapolation of data looks possible from the IEA's annual efficiency report which could be used to assess initiative progress.

Member progress

No data was found on member progress in the course of this study.

Sources

Mission Efficiency (2023). The Mission. Accessed August 2024

Mission Innovation - Green Powered Future Mission (MI: GPFM) 2021

Solution focus

Renewable energy.

No. of govt. members

23 member countries and the European Commission (on behalf of the European Union).

Co-lead members: China, Italy and United Kingdom.

Commitment

The Green Powered Future Mission has the goal of demonstrating that power systems, regardless of geography or climates, can effectively integrate up to 100 per cent variable renewable energies in their generation mix by 2030 while ensuring the system is cost-efficient, secure and resilient (Mission Innovation, 2021). The initiative mentions alignment with the Paris Agreement.

Overall progress (outcomes to date vs commitments)

The seven missions are established with indicative types of activities; however, there is no information presented on how this will be measured. The first annual review (2023) indicates that there have been impactful outputs against each of the missions and that each mission is making strong progress towards goals. However, there is insufficient published evidence to establish overall progress against commitments.

Member progress

No data was found on member progress in the course of this study.

Sources

Mission Innovation (2021) Joint roadmap of innovation priorities. Mission Innovation

Mission Innovation (2023). Mission Innovation. Accessed November 2023

Mission Innovation (2024). Technical Advisory Group Annual Review 2023. Accessed August 2024

Net Zero World (NZ World) 2022

Solution focus

Buildings, transport, power, industry, storage, nuclear, carbon capture and geologic storage, and energy use in agriculture.

No. of govt. members

Nine country members: Argentina, Chile, Egypt, Indonesia, Nigeria, Singapore, Thailand, Ukraine and the United States of America.

Commitment

The main commitment is to accelerate the transition to clean, secure energy systems and build a Net Zero World (NZ World), through three main strategic objectives:

1. Develop and support ambitious technical, market, and investment strategies for clean energy transformation.
2. Deliver holistic support for immediate and sustained transformative projects that maximize overall impact for the region.
3. Foster exchanges between US leaders and among countries to support peer-to-peer learning and confidence building.

The initiative does not mention alignment with the Paris Agreement.

Overall progress (outcomes to date vs commitments)

There is some progress underway with evidence of progress at activity level, in the form of national modelling activities. Net Zero World published a COP28 Outcomes Report in December 2023 which provides updates on energy sector wide modelling, technical cooperation on country implementation actions, and investment and mobilisation actions undertaken by Net Zero World. Evidence on progress is available, coherent and includes detailed explanation of how the models were conducted.

Activities to date highlighted in the initiative's Preliminary Analysis of Decarbonization Pathways (Net Zero World, 2022a) and the COP28 Outcomes Report (Net Zero World, 2023) include engaging in national modelling activities to provide the analytical underpinning for governmental decision makers to make informed climate and energy policy and investment decisions for the transition toward a net-zero future. These activities started with a rapid Phase I modelling effort to generate preliminary results in advance of the in advance of COP27. Phase I activities focused on high-level system-wide modelling efforts designed to glean preliminary insights on decarbonisation pathway opportunities in preparations for more targeted modelling in Phase II. The COP28 Outcomes Report provides further details of member progress (Net Zero World, 2023).

Member progress

- The Energy Secretariat of the Argentina Ministry of Economy identified priorities for cooperation with the Net Zero World Initiative in mid-2022. The Net Zero World Action Center applied these priorities and other related studies to inform and guide the preliminary pathway analysis (Net Zero World, 2022b). The initiative has identified cost-effective carbon emission reduction methods and energy-saving measures and is supporting the identification of a carbon storage pilot project (Net Zero World, 2023).
- Initial pathway modelling for Chile was informed and guided by discussions with the Chilean Ministry of Energy. The Net Zero World Initiative team also worked collaboratively with researchers from the Pontificia Universidad Católica de Valparaíso (Net Zero World, 2022b). The initiative is facilitating the repurposing of 400 MW of coal capacity for sustainable economic activities and is contributing technical expertise to implement district energy systems (Net Zero World, 2023).
- Because of the early stages of Egypt's participation in the Net Zero World Initiative and other commitments, the Government of Egypt was not engaged in guiding the initial pathway analysis (Net Zero World, 2022b). The initiative is focusing on development of an in-house modelling unit to enhance Egypt's capacity in energy modelling and strategy (Net Zero World, 2023).

- The Indonesian Ministry of Energy and Mineral Resources identified priorities for cooperation with the Net Zero World Initiative. The Net Zero World Action Center applied these priorities and other related studies to inform and guide the preliminary pathway analysis presented here (Net Zero World, 2022b). A public-private partnership with a Texas-based energy service consulting company, tQ Automaton, is now supporting the transition of island energy from diesel generators to replace 500 MW of diesel with clean energy alternatives in five remote sites in eastern Indonesia (Net Zero World, 2023).
- Discussions with the Government of Nigeria, including the Energy Transition Office in the Office of the Vice President and the Ministry of Environment, informed and guided this preliminary net-zero pathway analysis (Net Zero World, 2022b).
- The initiative is now working with the Nigeria Upstream Petroleum Regulatory Commission to implement new methane mitigation guidelines for the oil and gas sector and provide training and technology assessment to detect and fix methane leaks (Net Zero World, 2023).
- **Singapore:** Net Zero World partners with Singapore's Ministry of Trade and Industry and the Energy Market Authority. The collaboration is focussed on the technical feasibility and cost of increasing regional power grid integration through long-distance subsea interconnections (Net Zero World, 2023).
- **Thailand:** Net Zero World collaborates with Thailand's Ministry of Energy and other key agencies. The collaboration is enhancing institutional capacity in energy modelling, employing LEAP models to identify decarbonisation strategies and is investigating the use of repurposed battery energy storage systems (Net Zero World, 2023).
- **Ukraine:** Net Zero World collaborates with Ukraine's Ministry of Energy, the Ministry for Communities, Territories and Infrastructure Development and the Ministry for Environment and Natural Resources. The initiative is building capacity in nuclear energy including training in emerging technologies and is supporting the development of building energy efficiency programmes (Net Zero World, 2023).

Sources

Net Zero World (2022a) Preliminary Analysis of Decarbonization Pathways for Five Countries. Net Zero World

Net Zero World (2022b) Preliminary Analysis of Decarbonization Pathways for Five Countries: Executive Summary. Net Zero World

NREL (2023) Net Zero World Initiative. Accessed November 2023

Net Zero World Initiative (2023). COP28 Outcomes Report. Executive Summary. Accessed August 2024

Power Breakthrough Agenda (BA) 2017

Solution focus

Power Breakthrough Priority Actions are power system wide and cover various enabling conditions including: finance and investment, just transition, research and innovation, infrastructure (incl. grids/ supply chains), and demand (incl. appliances).

No. of govt. members

48 signatories to the overall Power Breakthrough Agenda, with 36 governments signed up.

Commitment

Commitment is clearly defined with members united in their commitment to work together "to make clean technologies and sustainable solutions the most affordable, accessible and attractive option in each emitting sector globally before 2030" (Breakthrough Agenda, 2022). The Breakthrough Agenda functions as an annual process and framework, as opposed to a direct delivery mechanism. The initiatives supported by the Breakthrough Agenda process are leading on Breakthrough Agenda actions delivering on the commitments.

The Breakthrough Agenda members set out priority international actions to key recommendations, listing activities and outputs to achieve the goal. The Agenda was designed so that countries:

1. Commit to work together to fast-track low-carbon transitions in each emitting sector over the course of this decade (high-level political commitment to collaborate).
2. Agree on goals focusing on tipping points where clean technology becomes most affordable.
3. Establish a process to track and strengthen collaboration.

The agenda and plans are aligned with the Paris Agreement 1.5C goal.

Overall progress (outcomes to date vs commitments)

Intended results are being achieved with evidence of progress at outcome level at larger scale.

However, although overall progress reporting is available from the 2022 and 2023 Breakthrough Agneda reports, it lacks detailed clarity into how results were assessed. The 2023 Breakthrough Agenda Report states that there has only been modest progress in strengthening international collaboration in the sectors covered in the report. Progress has been made in expanding financial and technical assistance to developing countries in some sectors and in converging on standards for measuring emissions and defining low-carbon products. There has also been progress in collaborative research and development initiatives across most sectors, although there remains a need to share learning more deeply with a wider set of countries. Overall, current efforts remain far from exploiting the full potential of international collaboration to accelerate transitions.

High-level broad progress at the outcome level, resulting in a green rating, includes:

- According to BloombergNEF (2022), for 96 per cent of the world, renewable energy sources are cheaper than building new coal- or gas-fired power plants.
- Installed renewable capacity increased by 1.7 Terawatt (TW) (8.7% per year) from 2011-21, while non-renewable sources grew by 1 TW (2.2% per year) over the same period. The share of low-carbon capacity (renewables and nuclear) in 2021 accounted for 43% of global total (Breakthrough Agenda, 2022).
- In 2021, 84 per cent of investment related to the energy transition was in China, Europe, India, Japan and the United States. However, out of over US$2.8tn of cumulative renewable energy investment made globally between 2010 and 2020, only 2 per cent was in Africa, despite the region's massive power needs and abundant resources (IRENA, 2022).

- Due to the growth of renewables and a decline in energy demand in recent years, the carbon intensity of power generation has fallen by 8.4 per cent since 2015 (Breakthrough Agenda, 2022).

Member progress

No data was found on member progress in the course of this study.

Sources

BloombergNEF (2022) A Year of Breakthroughs and Setbacks for the Race to Net Zero, in Five Charts, 29 December, 2022.

Breakthrough Agenda (2022) Breakthrough Agenda Report 2022. IEA

Breakthrough Agenda (2023) Breakthrough Agenda Report 2023. IEA

IRENA (2022) World Energy Transitions: Outlook 2022. IRENA

Race to Reslience (2023) Clean Power. Accessed November 2023

UK Government Web Archive (2023) The Breakthrough Agenda. Accessed November 2023

Breakthrough Agenda (2023): Power breakthrough priority actions for 2023

Powering Past Coal Alliance (PPCA) 2017

Solution focus

Coal exit.

No. of govt. members

Membership spans 181 national and sub-national governments, businesses, and organisations.

Commitment

- Members commit to accelerating the transition from coal to clean energy, grounded in the objectives of the Powering Past Coal Alliance (PPCA) Declaration.
- PPCA is 'a commitment to phase out coal by 2030 in the OECD and EU, and by no later than 2040 in the rest of the world'. It has become the driving force behind global efforts to phase out coal power, expanding to over 180 members worldwide and representing more than US$17 trillion in private sector assets under management.
- The initiative aligns with the Paris Agreement.

Overall progress (outcomes to date vs commitments)

There is published evidence of overall progress at outcome level. However, there is a lack of detail on how results were gathered, reported and assessed. For this reason it is also not possible to confirm consistency across case studies and countries.

- The last five years have seen a significant structural shift where coal plant retirements accelerated, particularly in the OECD and EU, with further retirements expected by 2030. Meanwhile, the scale of proposed coal plants at different stages of project development has collapsed by 76 per cent as countries turn their back on new coal power.
- This dramatic contraction in the scale and spread of potential new coal power projects is a key indicator of the global structural shift away from unabated coal power. The number of countries considering new coal power projects has nearly halved since 2015, from 66 to 34 countries.

Member progress

- In the UK the share of coal power gradually declined as other sources of generation were added. Coal's share of UK electricity supply has fallen dramatically from almost 40 per cent in 2012 to less than two per cent in 2020.
- In Canada, through policy leadership at both the national and subnational levels, the country is phasing out coal emissions in a way that makes it an attractive centre for energy investment and development. Canada's accelerated coal phase-out supports its latest 2030 Emissions Reduction Plan to achieve a net-zero electricity grid by 2035, eliminating more than 12 megatonnes (Mt) of greenhouse gases by 2030 and nearly 100Mt by 2050.
- Chile has put in place an ambitious coal power phase-out strategy. It is very likely that the Chilean power system will be coal-free sooner than 2040, with renewable energy replacing capacity and paving the way to the country achieving net-zero by 2050.
- In South Korea, the South Chungcheong Province has blazed a pathway towards carbon neutrality through bold policies and intensive collaboration at home and abroad. By 2022, South Chungcheong Province had reduced its CO_2 emissions to 154Mt – down 7Mt from 161Mt in 2018 – and had begun developing a roadmap to achieve the ambitious goal of carbon neutrality by 2045.

Sources

Powering Past Coal Alliance (2022) The State of Global Action to End Emissions from Coal Power. Powering Past Coal Alliance

Powering Past Coal Alliance. Our Members. Accessed August 2024.

Powering Past Coal Alliance. 2023 in Review: The Key Developments Shifting the Dial on Coal. Accessed August 2024

Renewables in Latin America and the Caribbean Initiative (RELAC) 2019

Solution focus

Renewables - power supply/electricity.

No. of govt. members

16 country members: Barbados, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay, Peru and Uruguay.

Commitment

Accelerate the carbon neutrality of electricity systems in the Latin American and Caribbean (LAC) region, improving the resilience, competitiveness and sustainability of the sector, generating green jobs and improving air quality and the health effects of its citizens.

With a starting point of 2019, achieve a regional target of at least 70 per cent renewable energy penetration in Latin America and the Caribbean by 2030.

Overall progress (outcomes to date vs commitments)

There is published evidence of overall progress at outcome level. However, evidence of progress lacks insight into how the results were assessed. A Program Summary Report documents progress in relation to three interrelated components: an energy storage workshop series, National Renewable Energy Laboratory site visit and country-level technical assistance for energy storage (RELAC 2024).

Technical assistance provided to members covers:

- Modelling scenarios for energy storage and associated capacity building
- Capacity building workshops for mini-grid modelling
- Regulatory Frameworks for Energy Storage (RELAC, 2024)
- RELAC reports on member progress towards renewable energy targets.

Member progress

Percentage of total renewables between 2010 and 2021.

- **Barbados**: 0.39% to 21% between 2010 and 2021
- **Bolivia**: 31% to 29% between 2010 and 2021
- **Chile**: 37% to 56.5% between 2010 and 2021
- **Colombia**: 65.4% to 69% between 2010 and 2021
- **Costa Rica**: 68.6% to 87.7% between 2010 and 2021
- **Dominican Republic**: 10.8% to 26.5% between 2010 and 2021
- **Ecuador**: 45.6% to 60.7% between 2010 and 2021
- **El Salvador**: 53.6% to 68% between 2010 and 2021
- **Guatemala**: 52.8% to 69.6% between 2010 and 2021
- **Haiti**: 14.4% to 17.1% between 2010 and 2021
- **Honduras**: 41.8% to 65.2% between 2010 and 2021
- **Nicaragua**: 35.2% to 45.3% between 2010 and 2021
- **Panama**: 47.4% to 59.9% between 2010 and 2021
- **Paraguay**: 99% to 99% between 2010 and 2021
- **Peru**: 39.9% to 41.6% between 2010 and 2021
- **Uruguay**: 67.4% to 76% between 2010 and 2021

Sources

Hub de Energia (2023) RELAC. Accessed November 2023

RELAC (2024) Program Summary Report. Accelerated Energy Storage Deployment in RELAC Countries. National Renewable Energy Laboratory: Colorado

SEAD Product Efficiency Call to Action (SEAD) 2021

Solution focus

Clean energy access.

No. of govt. members

15: Australia, Brazil, Chile, Colombia, Denmark, Germany, Ghana, India, Japan, Korea, Nigeria, Panama, Sweden, Turkey, and the United Kingdom have signed up to the commitment.

Commitment

SEAD Initiative and partners have launched the Product Efficiency Call to Action, with the goal of doubling the efficiency of four priority products that account for 40 per cent of global energy consumption by 2030. The Call to Action seeks to drive ambition on product energy efficiency standards to reduce global greenhouse gas emissions, promote business innovation, and ensure consumer access to affordable and high-performing technologies.

Commitments are aligned with the Paris Agreement.

Overall progress (outcomes to date vs commitments)

It was not possible in the course of the study to assemble evidence indicating overall progress as there are no available documents to establish progress of the initiative itself. We note that although there are no reports available, some extrapolation of data looks possible from the IEA's annual efficiency report which could be used to assess initiative progress.

Member progress

No data was found on member progress in the course of this study.

Sources

CLASP SEAD Initiative Launches Product Efficiency Call to Action Ahead of COP26. Accessed November 2023

SEAD Super-efficient Equipment and Appliance Deployment (SEAD) Initiative. Accessed July 2024

Small Island Developing States Lighthouses Initiative (SIDs LHI) 2022

Solution focus

From fossil fuels to clean energy.

No. of govt. members

The initiative brings together 41 SIDs from the Caribbean, the Pacific, and the Atlantic, Indian Ocean and South China Sea (AIS) regions, as well as 45 other partners, including developed countries, regional and international organisations, development partners, private companies, research institutes, and non-profit organisations. In 2022, Akuo, Australia, Curaçao, the Netherlands, the Caribbean Climate-Smart Accelerator, the Organisation of African, Caribbean and Pacific States, joined as new partners.

Commitment

- The SIDs LHIs Initiative is the framework of action for SIDs' energy transition and climate action. It seeks to achieve a target of 10GW of total renewable energy installed capacity in all SIDS by 2030. This objective has been enshrined in the IRENA-AOSIS Energy Compact.
- The SIDs LHI was launched at the United Nations Climate Summit in 2014 in response to the SIDs' call for action for support to achieve the objectives laid out by the SIDs Accelerated Modalities of Action (SAMOA) Pathway.
- The commitment is aligned to the Paris Agreement, with some mention of alignment to Article 14.

Overall progress (outcomes to date vs commitments)

There are indications that intended results are being achieved with evidence of progress at outcome level across member states. However, inconsistent information is provided across priority areas on the extent to which outcomes are carried out. The only outcomes reported are at case study level for priorities (1, 4, 5, 7, 8 ,11) while others are not reported. Reporting lacks detail on how results were assessed to draw consistent conclusions.

Member progress

Total installed renewable energy capacity (MW) of SIDs that are LHI partners, 2021:

Caribbean - Installed capacity (MW) 2021

Antigua and Barbuda 17 • Aruba 38 • The Bahamas 2 • Barbados 50 • Belize 103 • British Virgin Islands 1 • Cuba 1281 • Curaçao 60 • Dominica 7 • Dominican Republic 1532 • Grenada 4 • Guyana 53 • Montserrat 1 • Saint Kitts and Nevis 4 • Saint Lucia 4 • Saint Vincent and the Grenadines 8 • Trinidad and Tobago 4 • Turks and Caicos Islands 1.

Pacific - Installed capacity (MW) 2021

Cook Islands 5 • Fiji 220 • Kiribati 3 • Marshall Islands 2 • Micronesia (Federated States of) 3 • Nauru 2 • New Caledonia 199 • Niue 1 • Palau 2 • Papua New Guinea 335 • Samoa 29 • Solomon Islands 4 • Tonga 8 • Tuvalu 2 • Vanuatu 12.

Atlantic, Indian Ocean and South China Sea - Installed capacity (MW) 2021

Cabo Verde 35 • Comoros 1 • Maldives 32 • Mauritius 246 • São Tomé and Príncipe 3 • Seychelles 15 • Singapore 651.

Sources

SIDs LHIs (2023) SIDs LHIs Initiative: Progress and way forward. IRENA

IRENA Renewable capacity statistics 2024, International Renewable Energy Agency, Abu Dhabi. Accessed August 2024

SIDs Lighhouses SIDs LHI Initiative Annual Progress reports 2014-2023. Accessed August 2024

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