A/15/3/Rev.1

IRENA
International Renewable Energy Agency

18 December 2024

Fifteenth session of the Assembly
Abu Dhabi, 12-13 January 2025

Annual Report of the Director-General on the Implementation of the Work Programme and Budget for 2024-2025

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SECRETARIAT AT A GLANCE

97 publications » **36 publications** were translated into: AR CH FR DE IT JP PT RU SP

- World Energy Transitions Outlook 2024
- Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030
- Geopolitics of the Energy Transition: Energy security
- Renewable capacity statistics 2024
- Renewable energy statistics 2024
- Decentralised solar PV: A gender perspective
- Sub-Saharan Africa: Policies and finance for renewable energy deployment

205 events organised/ co-organised by IRENA » **70 virtual events** + **135 in-person events**

IRENA employs a talented and diverse workforce

176 posts filled

77 nationalities

stationed in Abu Dhabi, Bonn and New York, 46% are women and 54% are men.

9 loaned or seconded officers

Senior Team Gender Balance

43/57

15 998 applications received for 37 vacancies

Media coverage:

40 300 media articles in **56 languages** across **173 countries**

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IRENA AT A GLANCE

DIRECTOR-GENERAL

Francesco La Camera has been Director-General since 4 April 2019

DEPUTY DIRECTOR-GENERAL

Gauri Singh has been Deputy Director-General since 8 January 2020

YEAR OF ESTABLISHMENT

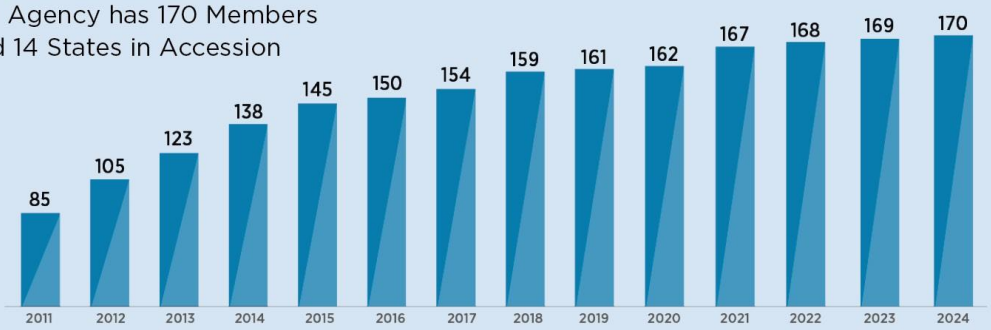
2011

OFFICES

In addition to its Headquarters in Abu Dhabi, IRENA has an office in Bonn, and a UN liaison office in New York.

IRENA MEMBERSHIP

As of 10 Septmber, the Agency has 170 Members and 14 States in Accession



14TH ASSEMBLY BUREAU

President: Rwanda

Vice-Presidents:

- Angola
- Dominican Republic
- Georgia
- Iraq

COUNCIL

21 Members

28th Council
Chair: Zimbabwe
Vice-Chair: Bangladesh

29th Council
Chair: TBC
Vice-Chair: TBC

2 Committees

Administration & Finance
Chair: Tonga
Vice-Chair: UAE

Programme & Strategy
Chair: El Salvador
Vice-Chair: USA

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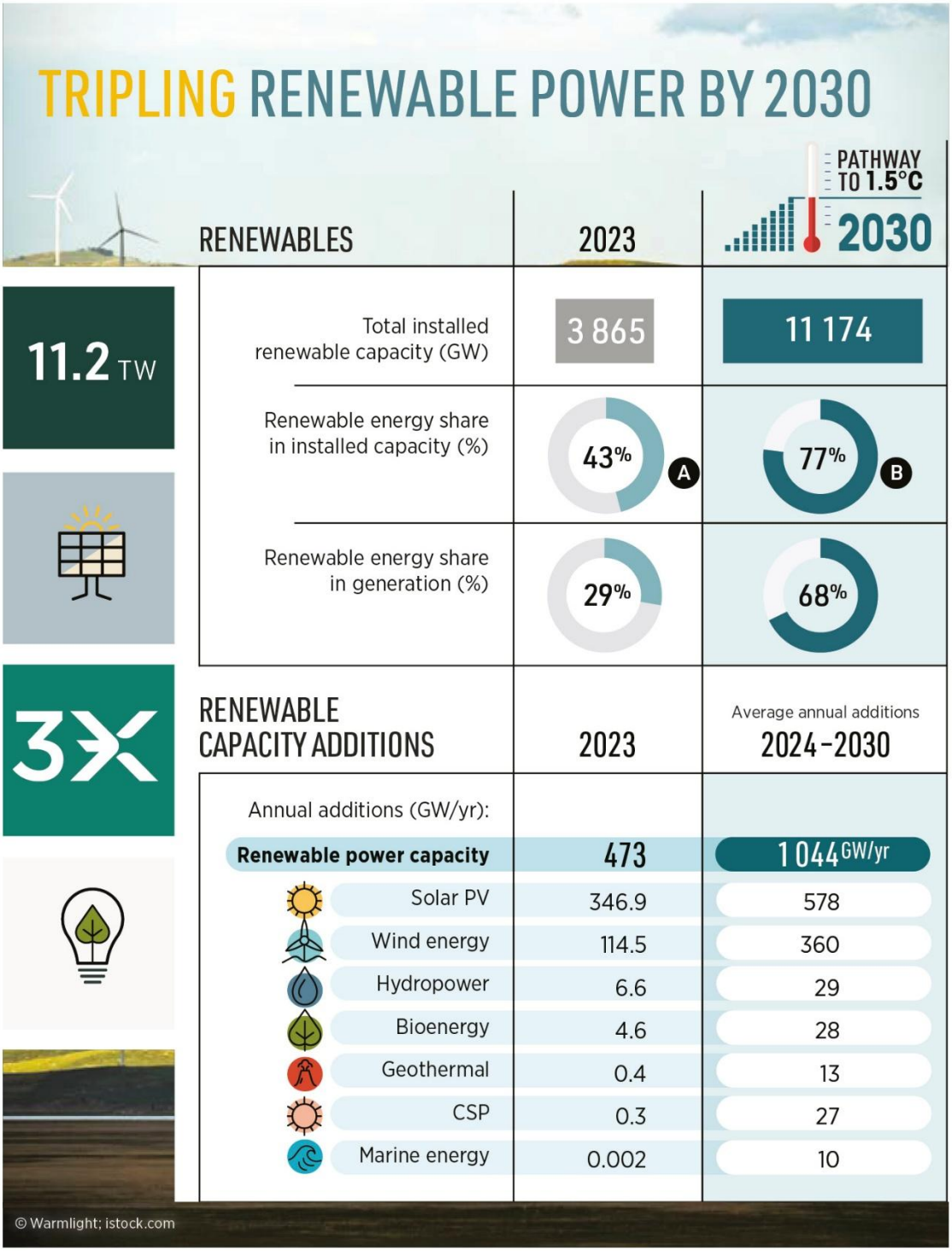
ENERGY TRANSITION AT A GLANCE

Tracking COP28 outcomes:



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For a detailled split see Figure 2, p. 30

Based on: (IRENA, 2023a; 2024a).

Notes: TW = terrawatt; GW = gigawatt; yr = year; PV = photovoltaic; CSP = concentrated solar power; wind data includes onshore and offshore; hydropower data excludes pumped hydro.

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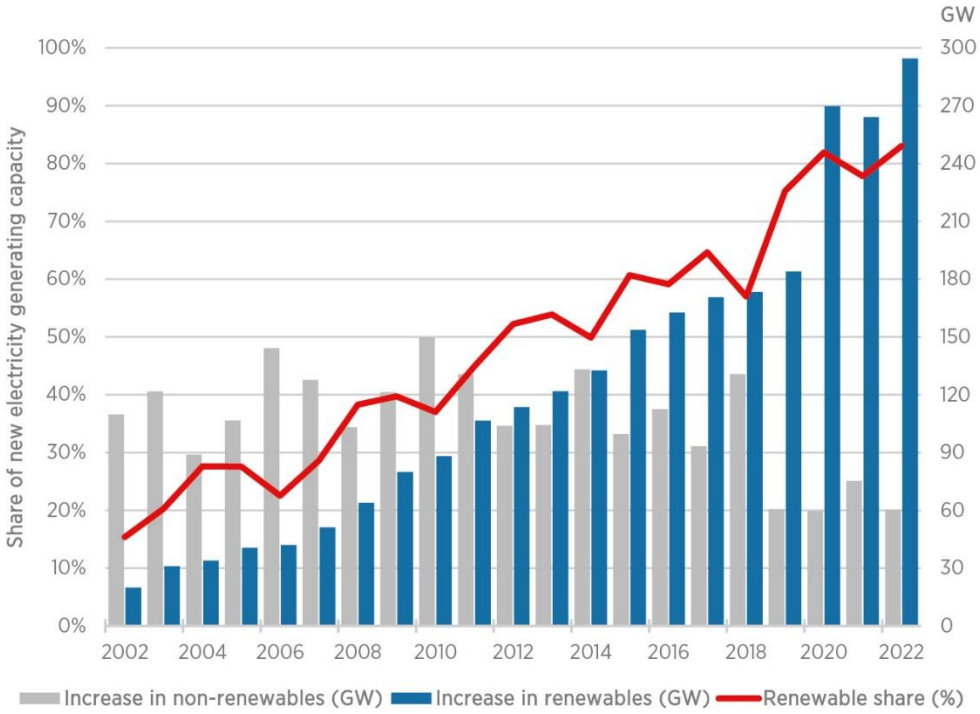
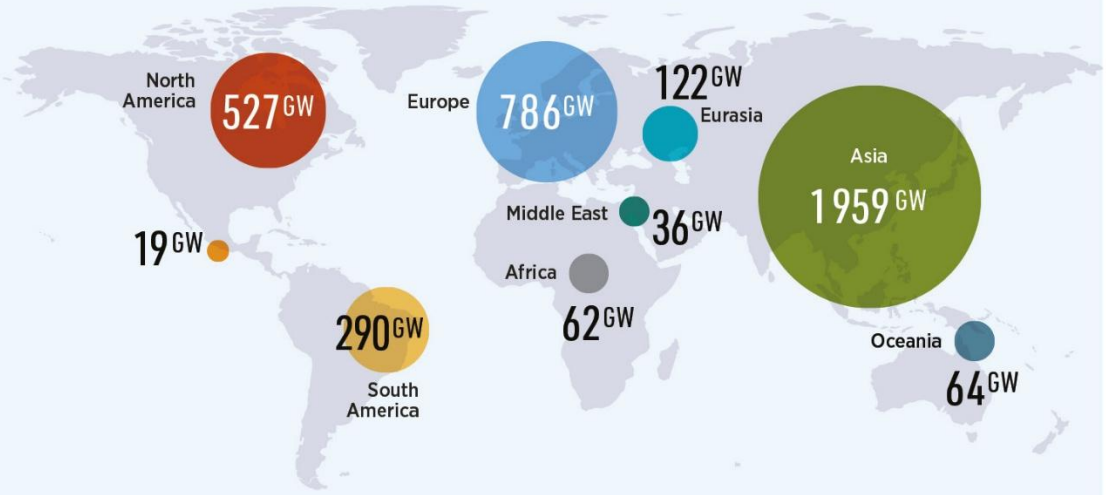
ENERGY TRANSITION AT A GLANCE

Renewable share of annual power capacity expansion



Renewable power capacity by region in 2023



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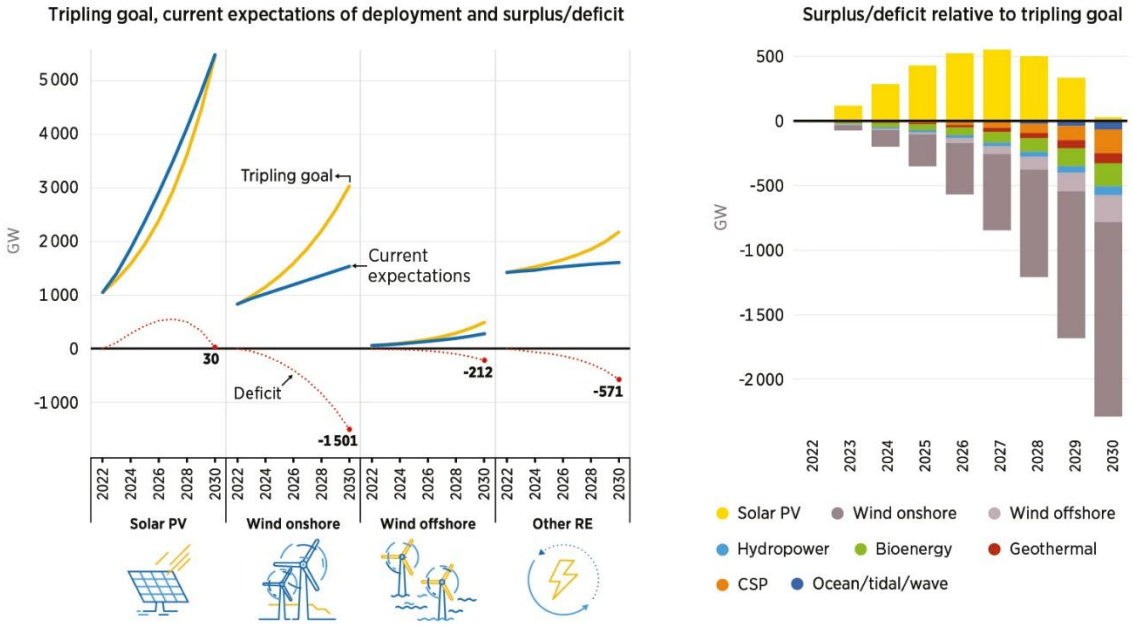
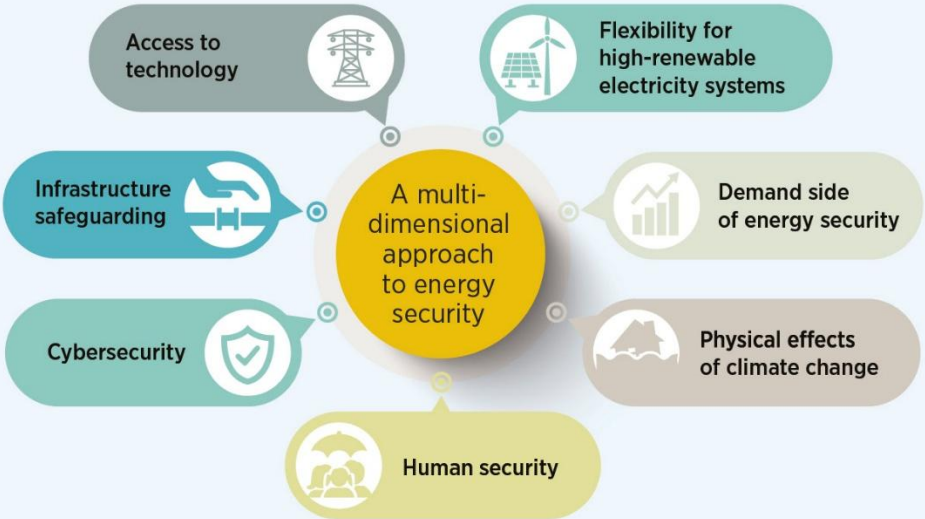
ENERGY TRANSITION AT A GLANCE

Current expectations of global cumulative renewable power capacity to 2030 compared to the tripling goal by technology, 2022-2030



Based on: (BNEF, 2023a, 2024a; IRENA, 2023d; SolarPower Europe, 2023; WindEurope, 2024; Wood Mackenzie, 2024).
Note: The tripling pathway is based on a fixed, simple compound average growth rate needed to increase the capacity of each technology from its base in 2022 to the 2030 tripling goal value. It is therefore only indicative of one possible pathway.

A multi-dimensional approach to energy security



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ENERGY TRANSITION AT A GLANCE

Primary indicators of global progress toward the SDG 7 targets

INDICATOR	2015	LATEST YEAR
7.1.1 Proportion of population with access to electricity	**957.5 million** people without access to electricity	**685 million** people without access to electricity (2022)
7.1.2 Proportion of population with primary reliance on clean fuels and technology for cooking	**2.7 billion** people without access to clean cooking	**2.1 billion** people without access to clean cooking (2022)
7.2.1 Renewable energy share in total final energy consumption	**16.7%** share of total final energy consumption from renewables	**18.7%** share of total final energy consumption from renewables (2021)
7.3.1 Energy intensity measured as a ratio of primary energy and GDP	**4.9 MJ/USD** primary energy intensity	**4.6 MJ/USD** primary energy intensity (2021)
7.a.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems	**12.3 USD billion** international financial flows to developing countries in support of clean energy	**15.4 USD billion** international financial flows to developing countries in support of clean energy (2022)
7.b.1 Installed renewable energy-generating capacity in developing and developed countries	**250 watts per capita** installed renewables capacity	**424 watts per capita** installed renewables capacity (2022)

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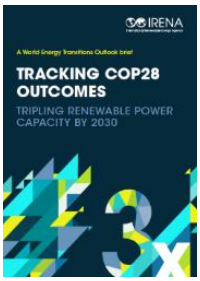
Advancing efforts to achieve a net-zero future for all

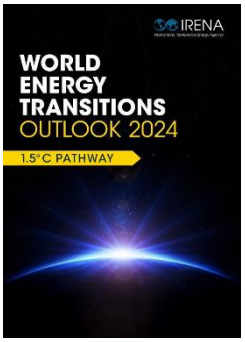
Guided by the Medium-term Strategy 2023-2027 adopted last year, IRENA's Work Programme and Budget for 2024-2025 continues to provide analytical, empirical and country support, while benefiting from a number of partnerships and collaborative arrangements. Furthermore, it has expanded its areas of work, extending support to regions as well as deepening its work in the areas of project facilitation and capital mobilisation.

The Work Programme continues to ensure the findings of the Agency's analysis are applied through meaningful programmatic activities to fill knowledge gaps and help shape immediate actions to promote a just and inclusive transition, including by driving investment at scale to support a global renewables-based energy system.

This report presents the Agency's programmatic activities undertaken since January 2024.



The historic decision at COP28 to triple renewable energy capacity globally and double the global average annual rate of energy efficiency improvements by 2030 was largely based on the IRENA analysis presented in the flagship report World Energy Transitions Outlook (WETO). A companion brief on **Tracking COP28 outcomes: Tripling renewable power capacity by 2030,**[1] was presented by the IRENA Director-General in his keynote presentation at the high-level panel on ***A Global Renewables & Energy Efficiency Target – Commitment to Action*** at the **Berlin Energy Transition Dialogue (BETD)**[2] on 19-20 March 2024. The brief offered the early tracking data and analysis of global progress towards the objective of tripling global renewable power capacity by 2030. In addition, during the high-level policymaker breakfast on ***Fostering Africa-Europe energy cooperation: Implementing commitments and realising Africa's energy transformation***, the Director-General highlighted how the Accelerated Partnership for Renewables in Africa (APRA) offers an opportunity for European countries to play a prominent role in partnering with Africa to achieve the COP28 targets.



IRENA's **World Energy Transitions Outlook 2024**[3] report shows that expediting the adoption of renewable energy, whilst also implementing complementary energy efficiency measures, presents the most feasible means to decrease global emissions by 43% by 2030, in alignment with the conclusions drawn by the Intergovernmental Panel on Climate Change (IPCC).

WETO 2024

In 2023, the positive trajectory continued; IRENA data indicates that there was an unparalleled surge in renewable power additions – thus, setting a new benchmark in renewable power deployment. 473 GW of renewable power generation capacity was added to the global energy mix – accounting for 87% of total newly installed capacity – with solar energy accounting for 73% of this growth (Figure 1). However, a significant gap remains between recent high-level political announcements and countries' actual plans and policies, both in terms of renewable capacity additions and investments. The report finds that renewable power capacity does not come near the required 1 044 GW per annum that should be deployed by 2030 to meet the tripling target. The progress in advancing the energy

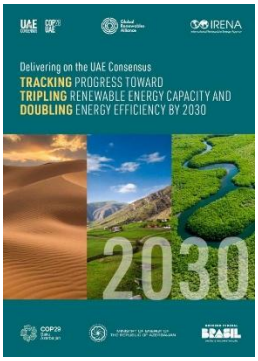
[1] Available here.
[2] More information available here.
[3] Available here.

transition thus far is insufficient and its trajectory is markedly off course. Under IRENA's 1.5°C Scenario, the Group of 20 (G20) countries alone would need to grow their collective renewable power capacity from less than 3 terawatts (TW) in 2022 to 9.4 TW by 2030, accounting for more than 80% of the global total capacity.

Tripling renewable power capacity by 2030 is both technically feasible and economically viable but requires commitment, policy support and investment at scale. To overcome the structural and systemic barriers impeding the global energy transition and to meet the targets by 2030, the report reiterates the need for a three-pronged approach: modernise and expand physical infrastructure; establish policies and regulations; and build institutional and human resource capabilities fit for the renewables era. Critical enablers underpinning these pillars will be scaled-up financing and intensified international collaboration.

Figure 1: Annual installed power capacity additions, 2003-2023.

Source: IRENA, *Tracking COP28 outcomes: Tripling renewable power capacity by 2030*, 2024.



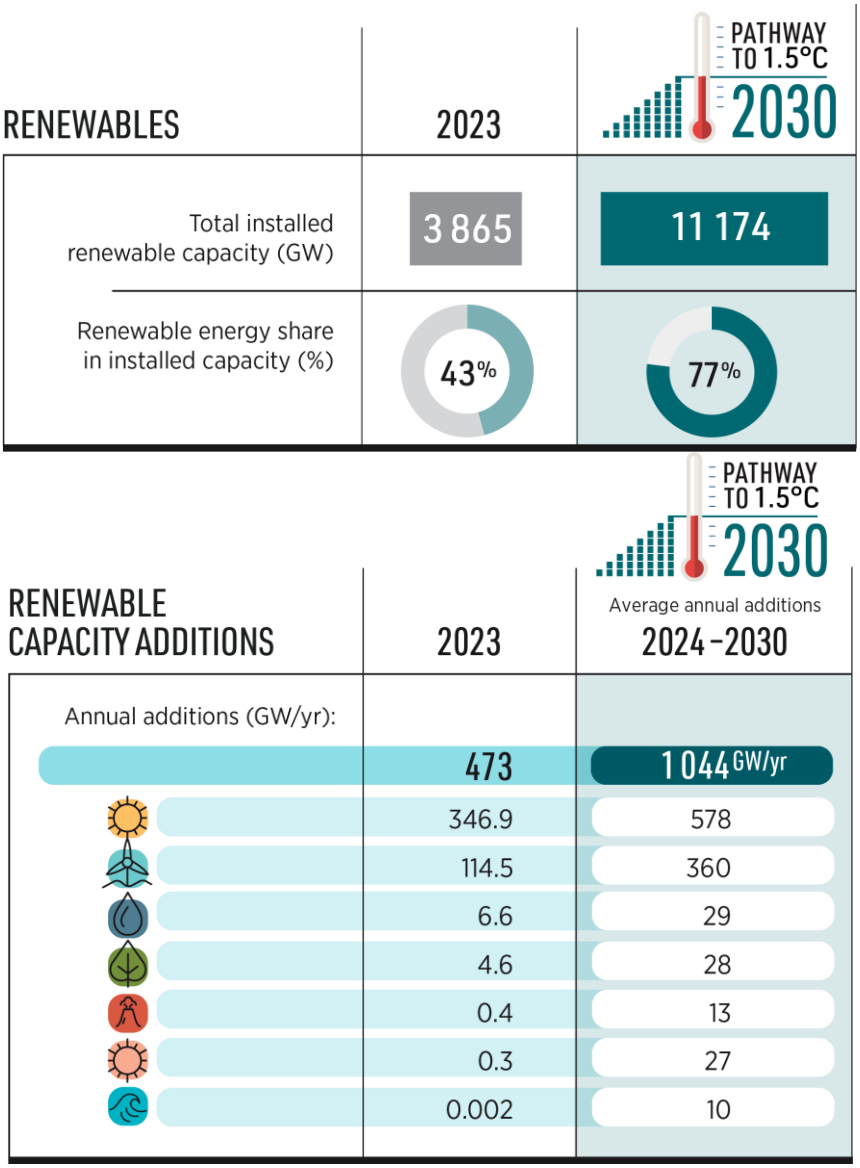
Following COP28, the COP28 Presidency designated IRENA as the custodian agency for tracking and reporting annually on progress in implementing the renewable energy and energy efficiency goals set by the UAE Consensus through 2030. IRENA developed the first edition of the **Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030**[4] report together with the COP28 Presidency, the COP29 Presidency, the Federal Government of Brazil and the Global Renewables Alliance. The report was launched in a side event co-hosted by IRENA and COP28 and COP29 Presidencies during Pre-COP29 in Baku on 11 October.

Delivering UAE Consensus

IRENA analysis shows that the world remains significantly off track in meeting the tripling pledge. The findings are sobering, confirming that "business as usual" approach will not deliver the desired outcome. Renewable energy capacity additions rose by 14% growth compared to 2023, yet it fell short of the required average annual addition of 1 044 gigawatts between 2024 and 2030 to reach 11.2 terawatts (TW) required by 2030. In addition, if capacity additions were to continue at 14% per year to 2030, the shortfall to the 11.2 TW target would be 1.5 TW (Figure 2) equivalent to the combined installed renewable power generation capacity of Europe, North America, Central America and the Caribbean, the Middle East and Oceania today.

[4] Available here.

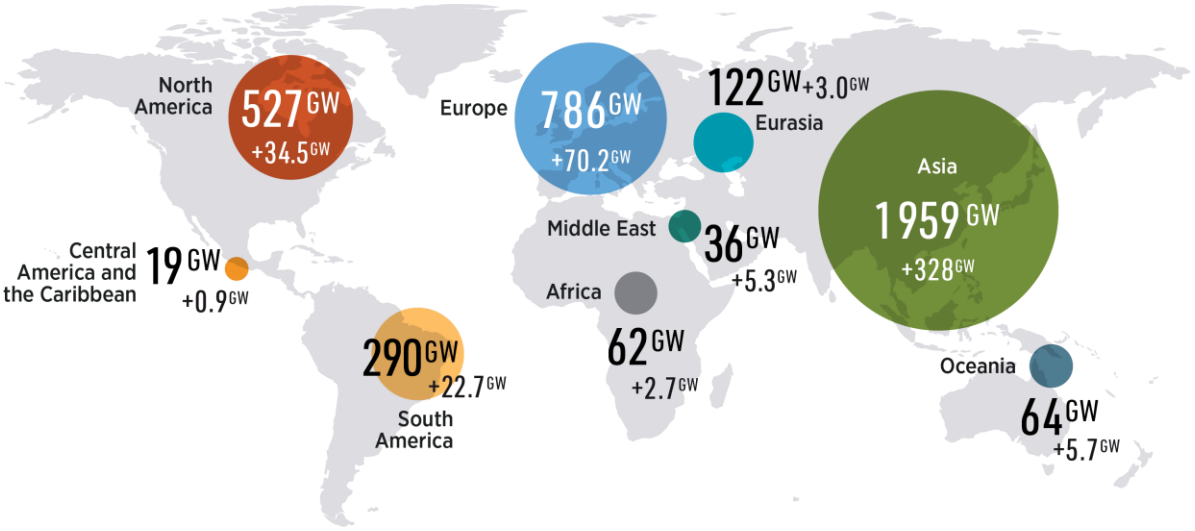
Figure 2: Tracking COP28 outcomes



Source: IRENA, *Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030*, 2024

Furthermore, the distribution of renewable installed capacity remains highly uneven across the world, both in terms of geography and technology, preventing many countries in the developing world from accessing the development benefits offered by renewables. In 2023, Asia, Europe and North America accounted for almost 85% of global installed capacity, whereas Africa accounted for 1.6% of the global share of newly installed renewable power capacity. This is concerning, given that some 571 million people in Sub-Saharan Africa lack access to electricity (Figure 3). Solar and wind energy continue to dominate renewable energy deployment, which itself remains concentrated in a limited number of markets too.

Figure 3: Renewable power capacity by region in 2023



Source: IRENA, *Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030,* 2024

Success also hinges on sustainable and sufficient levels of investments in the deployment of renewable energy, especially for those countries in greatest need. In 2023, energy transition-related investments are estimated to have been approximately USD 1 289 billion. However, China, the EU and the USA attracted 84% of renewable capacity investments, while Brazil and India accounted for just over 6%. Conversely, investments in Africa fell by 47% in the period 2022–2023. Comparatively, on a per capita basis, advanced economies (comprising 38 countries and making up 14% of the world's population) attracted five times more investment. Overall, USD 31.5 trillion in cumulative investment in renewables, grids, flexibility, efficiency and conservation is needed to meet the UAE Consensus renewable energy and energy efficiency goals for 2030.

Figure 4: Investments required to meet the UAE Consensus targets

All numbers in 2023 USD billion		Investment in 2023	PATHWAY TO 1.5°C 2030 Average annual investments required 2024-2030
RENEWABLE POWER GENERATION CAPACITY	Total	570	1 532 USD billion/yr
GRIDS AND FLEXIBILITY	Total	391	717 USD billion/yr
ENERGY EFFICIENCY AND ENERGY CONSERVATION	Total	328	2 250 USD billion/yr
	TOTAL	1289	4 499 USD billion/yr
			2024-2030 USD 31.5 trillion

Source: IRENA, *Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030,* 2024

Likewise, investments in renewable energy capacity surged to a record-breaking USD 570 billion in 2023, Nonetheless, they still fall significantly short of the annual USD 1.5 trillion investment required between 2024 and 2030 to meet global goals. Moreover, investments in grids and flexibility reached USD 391 billion and energy efficiency and conservation amounted to USD 328 billion. However, they are still far behind the USD 717 billion and USD 2 250 billion required respectively. On a positive note, if annual investments in solar PV continue this trajectory, they will be on track to meet the USD 397 billion required each year until 2030 Although the clock is ticking, there is still a small window of time to course correct and realise the Tripling goal. The report provides recommendations for policymakers in the areas of policy and regulation; supply chains, skills and capacities; finance; international collaboration; and infrastructure to overcome barriers and seize opportunities.

In focus: IRENA and COP29

Upon the request from the COP29 Presidency of Azerbaijan, IRENA supported the COP29 Green Energy Initiatives as part of the COP29 Presidency's Action Agenda. The initiatives include the three initiatives on Green Energy Zones and Corridors, Energy Storage and Grids, and Hydrogen Declaration all of which Pledges recognise IRENA's work undertaken in these areas.

Ministerial dialogue on scaling up financing towards UAE Consensus goals

On 12 November, the COP29 Presidency of Azerbaijan, the EU and the COP28 Presidency of the United Arab Emirates organised a Ministerial Dialogue to reflect on progress and refocus on the commitments made by governments at COP28. The Ministerial Dialogue also captured various aspects of advancing renewable energy development and scaling up investments in energy transition-related technologies in power and end-use sectors such as transport, industry, and heating.

COP29 Energy Transition Investment Forum for Central Asia

COP29 prioritised the mobilisation of finance from public and private sectors, which is critical to achieving the UAE Consensus as well as accelerating the energy transition in Central Asia. While demand for energy in the region is rising due to growing populations and fast economic development, there are also considerable opportunities to keep the region on a clean and sustainable development path. Making the transition to a sustainable, low-carbon energy future, however, will require the mobilisation of finance at scale to enable the deployment of renewable energy from the ground. In addition to the region's abundant natural resources and largely untapped renewables potential, its geo-strategical position and the ongoing efforts towards establishing a green energy corridor connecting the neighbouring regions offer significant opportunities for Central Asia.

In this context, the COP29 Presidency and IRENA organised the COP29 Investment Forum in Baku on 15-16 November, to address these issues. This two-day Forum brought together governments, financial institutions, development partners, investors and project developers and other key stakeholders from Central Asia, to discuss opportunities and constraints in mobilising high levels of investments for energy transition projects.

Accelerated Partnership for Renewable Energy in Central Asia (APRECA)

As a newly proposed regional partnership, APRECA was featured during the inauguration of the Investment Forum for Central Asia at COP29. The Partnership aims to accelerate a renewables-based energy transition in the region. It also aims to promote international trade and export opportunities to neighbouring regional markets, while stimulating economic value creation and green industrialisation. The partnership will take forward the COP28 UAE Consensus ambitions and support the COP29 energy transition outcomes such as green hydrogen, green energy zones, and green energy storage, as relevant.

The initiative will contribute to regional growth aligned with global climate goals, leading to better lives and livelihoods, and a significant reduction in reliance on non-renewable energy resources. Recognising the abundance of renewable energy and mineral resources that are important for energy transition in the region, the Partnership aims to maximize local value creation and industrial development, powered by an accelerated renewables deployment. In this context, IRENA will organize the second part of the Energy Transition Investment Forum for Central Asia in Azerbaijan in June 2025.

COP29 event on Accelerated Partnership for Renewables in Africa (APRA)

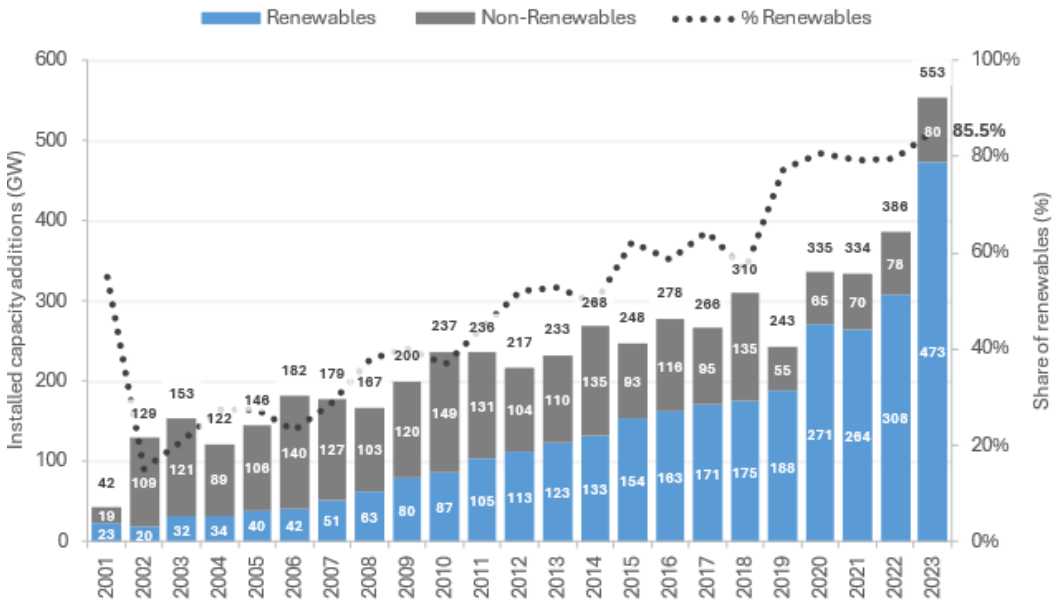
On 13 November, a high-level event on *Africa's Green Momentum: Harnessing for Industrialisation* brought together, world leaders from African countries such as Kenya, Ghana and Sierra Leone and supporting APRA countries like Denmark, Germany and the United States. The United Nations Secretary-General, Mr. Antonio Guterres delivered opening remarks, highlighting the need to transform socio-economics across Africa, including policy reform and scaled-up financing. He also emphasised the importance of critical materials in revolutionising lives and ensuring access to affordable power.

The event also offered the opportunity to make two key announcements. First, Sierra Leone proposed to host the next APRA Investment Forum. Second, Germany unveiled plans to establish an implementation office in Nairobi through UNOPS.

The findings of the 2024 **Renewable capacity statistics 2023**[5] report demonstrates that renewable energy sources have solidified their position as the primary option for new power generation. The upward trend continued in 2023, with 473 GW of capacity added, thus increasing total renewable capacity by 14.0% to reach 3 865 GW. Renewable sources of energy accounted for 85.5% of total capacity additions (Figure 5). Solar energy accounted for the largest share of the global total, with a capacity of 1 419 GW. Renewable hydropower and wind energy accounted for most of the remaining additions, with capacities of 1 268 GW and 1 017 GW, respectively.

[5] Available here.

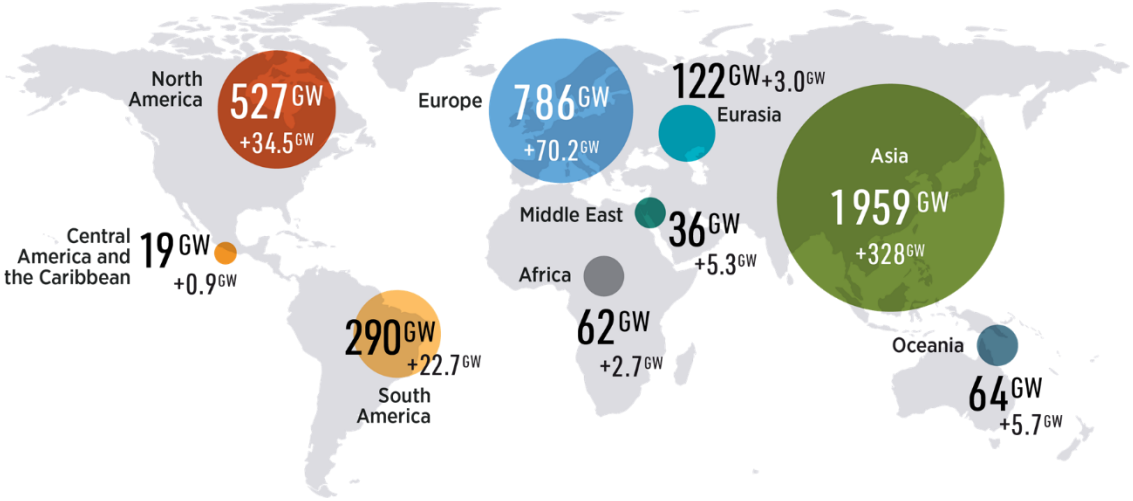
Figure 5: Renewables share of annual global power capacity expansion, 2001-2023



Source: IRENA, *Renewable capacity statistics 2023,* 2024

In terms of regional distribution, once again, Asia represented the largest proportion of new capacity additions with 328 GW added in 2023, accounting for 69% of global new capacity added. This region is now home to a total of 1 961 GW of renewable capacity – 50.7% of the global total. The primary contributor was China, with a substantial addition of 298 GW. Europe and North America also saw expansions in capacity, with increases of 71.2 GW (10% higher than in 2022) and 34.9 GW (7% higher than in 2022), respectively. Oceania rose by 5.5 GW (9% higher than in 2022), primarily owing to capacity additions in Australia, while South America continued its upward trajectory, expanding by 22.4 GW (8.4% higher than in 2022). The Middle East achieved its highest-ever expansion, with the addition of 5.1 GW of new capacity in 2023, representing a growth rate of 16.6%. (Table 1).

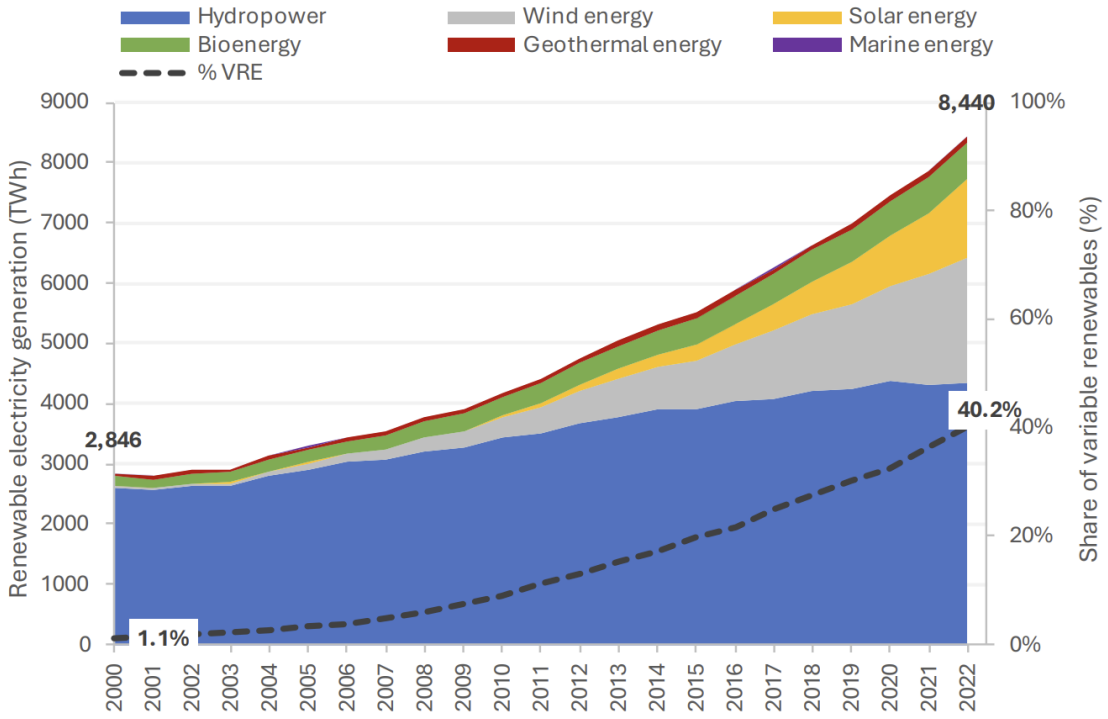
Table 1: Renewable generation capacity by region



Source: IRENA, *Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030*, 2024

The IRENA's **Renewable energy statistics 2024**[6] report highlights the steadily increasing trajectory of global renewable electricity generation. In 2022, electricity generated from renewables reached 8 440 TWh worldwide, accounting for 29.1% and registering a 7.2 % increase from the previous year. Hydropower continues to provide the bulk of electricity generation accounting for 4 330 TWh, with a modest increase of 0.8%. Yet consistently since 2010, solar and wind energy are the two renewable energy sources driving the largest growth in renewable electricity, with wind reaching 2 098 TWh and solar 1 294 TWh, and a respective increase of 14% and 25.6% since 2021. They were followed by bioenergy, producing 619 TWh; geothermal contributing 97 TWh and marine energy producing 1 TWh (Figure 6). Asia continues to dominate in absolute terms of renewable electricity generation, generating 3 749 TWh in 2022. For the first time, North America came second, producing 1 493 TWh, followed by Europe – the region generated 1 462 TWh - and South America which generated 940 TWh. Oceania generated 125 TWh, a robust 14.1% increase across energy sources.

Figure 6: Cumulative renewable electricity generation, 2000 to 2022

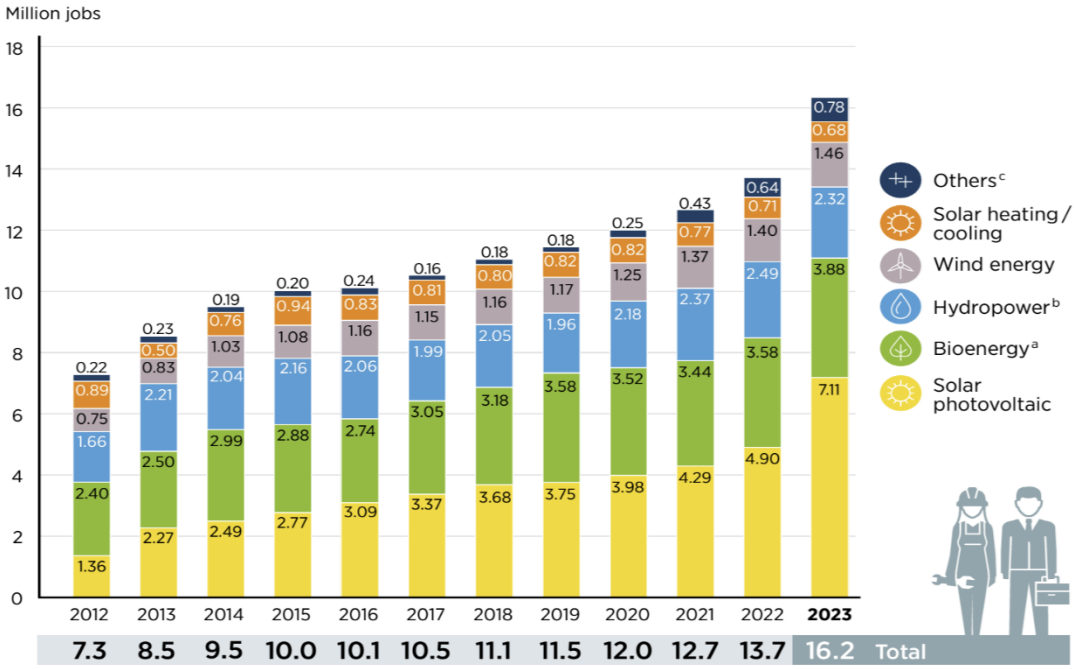


Source: IRENA, *Renewable energy statistics 2024*, 2024

[6] Available here.

Turning to the socio-economic aspects of the energy transition, IRENA's eleventh edition of the **Renewable energy and jobs – Annual review report**[7] - the third one produced in cooperation with the International Labour Organisation – finds that the burgeoning renewables sector continues to gain significant ground as an employer although the distribution of jobs worldwide remains uneven. According to IRENA's analysis, a total of 16.2 million global renewable energy jobs were accounted for in 2023, indicating an addition of 2.5 million jobs since 2022. The majority of the positions (7.4 million) are found in China, followed by the European Union (1.8 million) and Brazil (1.6 million). In terms of technology, 7.1 million people were employed in the solar photovoltaic sector in 2023, mostly in China (4.6 million jobs). The biofuels sector employs 2.8 million people, mostly in the agricultural supply chain, followed by the hydropower sector, where 2.3 million direct jobs exist (Figure 7). As the numbers indicate, China, Brazil, India, the United States and members of the European Union continue to dominate equipment manufacturing, engineering, installation and other services due to national policies enabling employment generation and investments in the renewables sector, among others (Figure 8). In addition, research indicates that job creation during the energy transition might outpace job loss, however, a balanced distribution of opportunities between men and women in the workforce is not guaranteed. To boost the renewable energy sector as an employer, and ensure a just and inclusive energy transition, it is imperative to provide equal opportunities to the workforce to develop the necessary skills and fill critical roles.

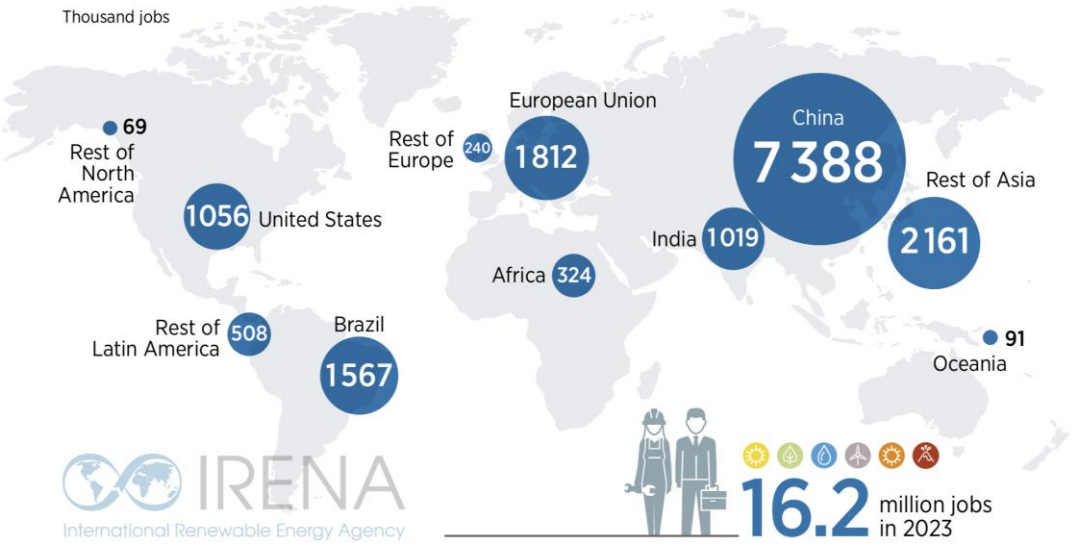
Figure 7: Global renewable energy employment by technology, 2012-2023



Source: IRENA, *Renewable energy and jobs: Annual review 2024*, 2024

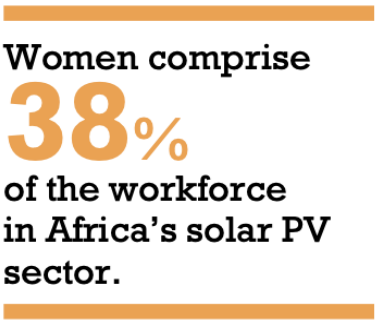
[7] Available here.

Figure 8: Renewable energy employment in selected countries and regions



Source: IRENA, *Renewable energy and jobs: Annual review 2024*, 2024

Decentralised renewable technologies, in particular solar PV technologies, can be an important engine for employment and in creating sustainable livelihoods. While women have made significant strides in the small-scale and off-grid sectors, their representation in the decentralised renewables workforce, remains disproportionately low, especially in sub-Saharan Africa. IRENA's **Decentralised solar PV: A gender perspective**[8] report explores the status of female employment in this sector, focusing on decentralised solar PV. The report highlights the main barriers women face, drawing from five country case studies: Ethiopia, India, Kenya, Nigeria and Uganda. In 2023, more than 300 000 people were estimated to be directly employed in the decentralised solar PV sector in these countries. According to the analysis, women made up only a small portion of this workforce and some of the key obstacles they face include societal constraints; lack of access to educational and professional development; workplace barriers; and difficulty in accessing finance. The report also provides recommendations on how to overcome the challenges.



IRENA's International Women's Day event on 8 March was held under the theme, **Invest in Women: Accelerate Progress Through Renewable Energy**[9], and aimed to amplify the voices and contributions of

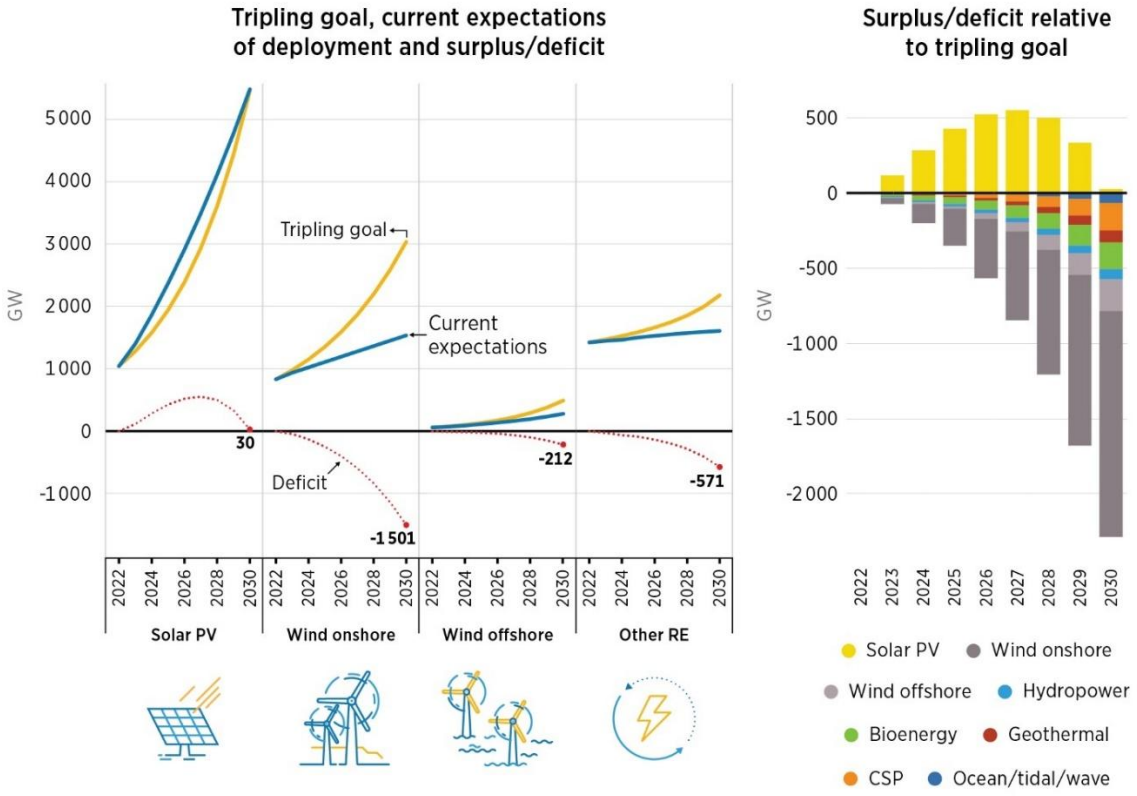
[8] Available here.
[9] More information available here.

women, paving the way for accelerated progress in renewable energy and beyond. The stories shared and insights gained during this event contributed to the promotion of gender equality, which is critical in a world grappling with numerous socio-economic and environmental crises. The discussion highlighted that renewable energy emerges as a promising platform for championing gender equality and equity initiatives. Investing in renewables and empowering women, not only as beneficiaries but also as active agents of change, helps mitigate poverty, inequality, and environmental degradation. Advocating alternative economic models that foster a shift towards a green economy and an equitable society that amplifies women's voices is essential.

The Group of 7 (G7) countries will play an important role in delivering on the COP 28 goal through the expansion of renewable power capacity within its members, and by leading action to address deployment and integration barriers as well as supporting emerging and developing economies in delivering their contributions. In support of the G7 Italian 2024 Presidency and to inform discussions during meetings of the G7 senior officials and G7 Ministers' Meeting on Climate, Energy and Environment - held in Turin, Italy on 29-30 April 2024 - IRENA developed three reports. The **Tripling renewable power by 2030: The role of the G7 in turning targets into action**[10] report showcases advancements made in various energy transition metrics, including those in enabling areas required to support the tripling goal (e.g. grid investments, renewable power curtailment, etc.). The report provides clear recommendations to the G7 on how to address the expected gaps in deployment and delivery risks, including the role of storage targets; the modernisation and expansion of grids to support the tripling of renewable power capacity; the importance of developing a skilled workforce; the challenge of increased cost of capital, particularly for emerging markets; and the G7's crucial role in supporting emerging market and developing economies to ensure global alignment with COP 28 targets that help deliver Paris Agreement goals (Figure 9).

[10] Available here.

Figure 9: Current expectations of global cumulative renewable power capacity to 2030 by technology compared to the tripling goal, 2022–2030.



Source: IRENA, *Tripling renewable power by 2030: The role of the G7 in turning targets into action*, 2024.

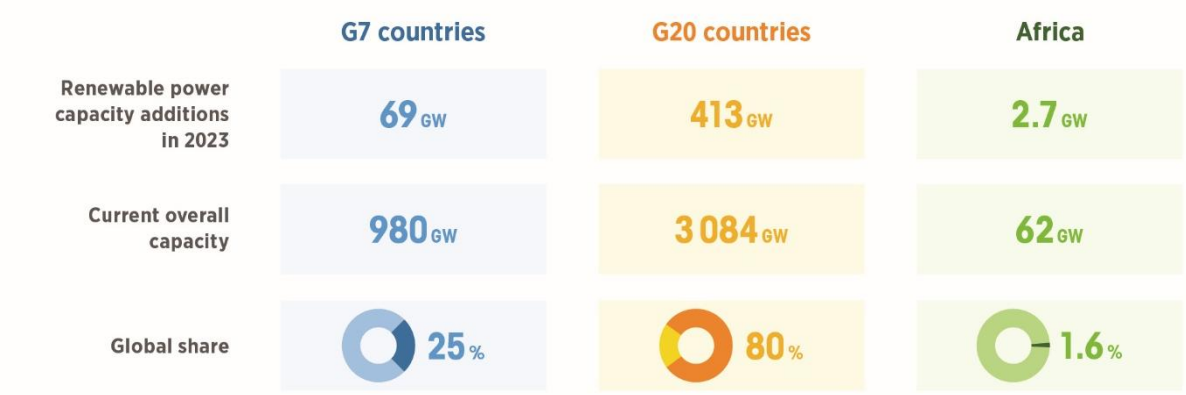
Renewable energy sources can significantly contribute to reducing carbon emissions in hard-to-abate sectors. While viable solutions are now more accessible than ever, and despite notable advancements and heightened interest from policymakers, none of the sectors facing significant decarbonisation challenges are currently projected to achieve net-zero emissions by 2050. **Decarbonising hard-to-abate sectors with renewables: Perspectives for the G7**[11] report presents eleven recommendations for the G7 to accelerate the energy transition in those sectors in their countries. The report explores the decarbonisation status, pathways and progress in five of these sectors; highlights cross-cutting issues, challenges and solutions; and provides concrete recommendations on how the G7 can establish the enabling conditions required to implement these solutions.

Africa continues to suffer from insufficient investment, with the continent receiving less than 2% of global investments in renewable energy over the last two decades. As a result, in 2023, the continent contributed only 1.6% of global renewable energy capacity growth. In the Nairobi Declaration on Climate Change in September 2023, African leaders had called on the international community to contribute to the goal of increasing renewable capacity on the continent from 56 GW in 2022 to 300 GW by 2030. The G7 could lead international collaboration in support of African-led initiatives to achieve this target. The IRENA report, **The energy transition in Africa: Opportunities for international collaboration with a focus on the G7**[12], draws from the Agency's extensive work and partnerships with countries in the region, and builds on the work of G7 countries in Africa to date. It identifies priority areas for potential collaboration between the G7 and Africa, including increasing investment in infrastructure and enabling access to finance; expanding energy access and supporting the productive use of energy; effectively managing critical materials for the energy transition; and

[11] Available here.
[12] Available here.

strengthening institutional frameworks and capacity. Figure 10 shows the stark disparity in renewable energy capacity when compared with G7 and G20 countries. Specifically, Africa saw only 2.7 GW of renewable power capacity additions in 2023, compared to 413 GW in G20 countries, accounting for a mere 1.6% of global additions and indicating considerable scope for growth to unlock its renewable potential (Figure 10).

Figure 10: Geographical disparities in the distribution of renewables



Source: IRENA, *The energy transition in Africa: Opportunities for international collaboration with a focus on the G7*, 2024

In the **G7 Climate, Energy and Environment Ministers' Meeting Communiqué**[13] published on 30 April, G7 leaders tasked IRENA to track and monitor the group's collective contribution toward the global renewable tripling target by 2030.[14] The G7 Communiqué presented the Group's pledge to increase system flexibility through grid reinforcement, in line with IRENA analysis of key metrics. Falling within the range of IRENA's recommendations for energy storage capacity by 2030, it also called for the significant expansion of energy storage capacity, by more than six-fold by 2030, from 230 GW in 2022. IRENA, alongside other organisations, was urged to continue working on industrial decarbonisation, particularly standards and technology development for hard-to-abate sectors. Achieving the ambitious COP28 renewables target will require concerted actions by the global community to modernise and expand relevant infrastructure, adopt enabling policies, adapt markets, and enhance institutional and human capacities. This will also inspire new perspectives on energy security, historically viewed through the lens of a fossil fuel-dominated era.

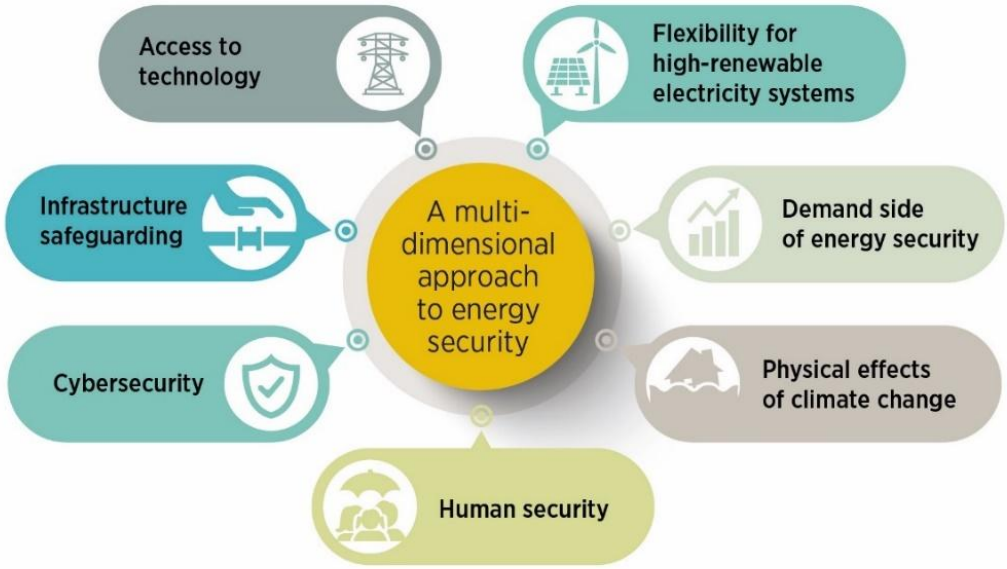
[13] Available here.
[14] More information available here.

From an industry perspective, IRENA's **Alliance for Industry Decarbonization (AFID**) released a comprehensive report on **Solutions to decarbonise heat in the steel industry**[15]**,** detailing a range of solutions to decarbonise steel manufacturing, such as shifting to low-carbon fuels like hydrogen, electrifying processes with renewable energy, and utilising waste heat recovery systems to improve efficiency and reduce emissions. The report emphasises the importance of collaboration among governments, industry stakeholders, and research institutions to create supportive policies and incentives. It also calls for significant investment in research, the implementation of pilot projects, and workforce training to advance decarbonisation technologies and ensure their successful implementation.

IRENA's latest edition on the geopolitics of the energy transition series is the **Geopolitics of the energy transition: Energy security**[16] report. Developed under the IRENA Collaborative Framework on the Geopolitics of Energy Transformation, the report stresses the need for a different approach (Figure 11) from the fossil fuel era and provides related policy recommendations (Figure 12), while placing people and planet at the centre of this changing energy security landscape. Specifically, it cautions against merely transposing thinking from the fossil fuel era to a renewables-based system and identifies multiple issues to take into consideration during national decision making on resource endowments and comparative advantages. This is particularly vital as governments make significant investments in infrastructure for systems that are increasingly electrified, digitalised and decentralised. Crucially, the report underlines the fact that efforts to enhance energy security are political as well as technical in nature.

Geopolitics: Energy Security

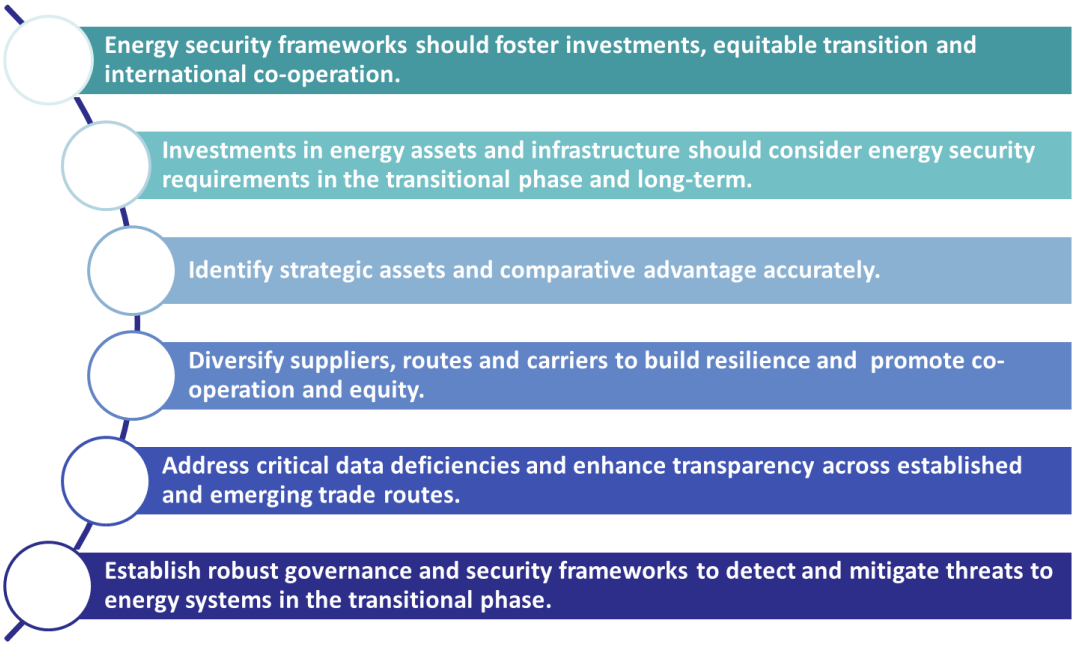
Figure 11: A multi-dimensional approach to energy security



Source: IRENA, *Geopolitics of the energy transition: Energy security*, 2024.

[15] Available here.
[16] Available here.

Figure 12: Policy recommendations for the new era



Source: IRENA, *Geopolitics of the energy transition: Energy security*, 2024

IRENA is a custodian of indicators 7.a.1 (International public finance for renewables) and 7.b.1/12.a.1 (Renewable capacity per capita) of Sustainable Development Goal 7 (SDG 7) and SDG 12, with the responsibility of developing and publishing related statistics for these two indicators. The Agency published updated data for both indicators in the Global SDG Indicators Database[17] on 28 March – data that was also featured in the IRENA capacity statistics tools. Using the updated indicators, IRENA developed narratives on renewable energy and public finance directed towards developing countries. IRENA's analysis shows that whilst global installed renewable energy capacity has been on the rise – reaching 424 watts per person in 2022 – developed countries account for 3.7 times more installed renewable energy capacity than developing countries. Meanwhile, whilst international public financial flows in support of clean energy in developing countries reached USD 15.4 billion (an increase of 25% from 2021), this remains around half of the 2016 peak of USD 28.5 billion.

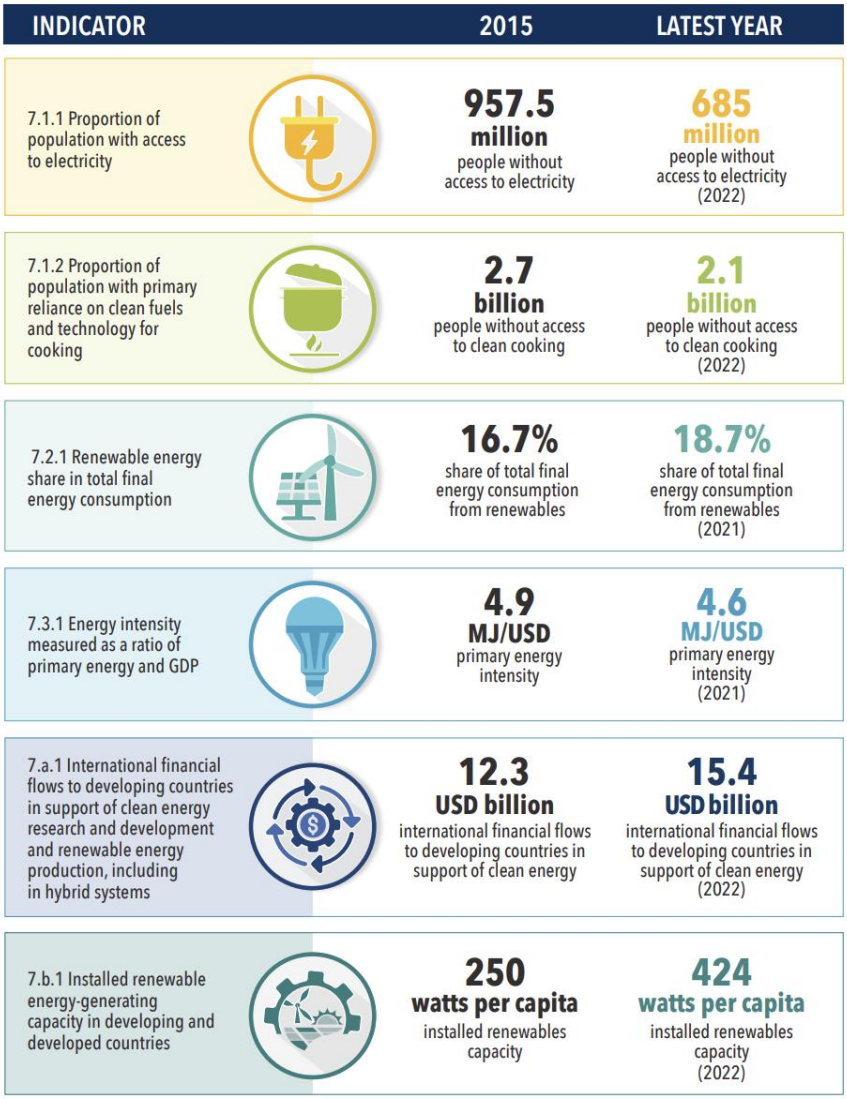
IRENA contributed to the **Global Stocktake of SDG 7**[18] event held at United Nations Headquarters on 19 April, to review progress achieved at the conclusion of the UN Decade of Sustainable Energy for All (2014-2024) and raise ambitions regarding SDG 7. To inform the Stocktake and its outcomes, IRENA together with the other SDG 7 custodian agencies[19], developed the **Tracking SDG 7: Energy Progress Report brochure**[20] upon the request of the United Nations. The brochure provided a snapshot of the latest information on global progress in achieving access to affordable, reliable, sustainable and modern energy for all.

The **Tracking SDG 7: The Energy Progress Report 2024**[21] was launched at a side event during the 2024 High-level Political Forum in New York, USA. The report found that progress on basic energy access reversed

[17] Available here.
[18] The Stocktake was mandated through UNGA resolution 77/170, requesting the President of the General Assembly to convene a global stocktaking on global progress on SDG 7.
[19] World Bank, International Energy Agency, United Nations Statistics Division, and World Health Organization.
[20] Available here.
[21] Available here.

for the first time in a decade. Population growth continues to outpace new connections, 685 million people living without electricity access in 2022, and 2.1 billion people continue to rely on damaging cooking fuels globally. Renewable energy has seen robust growth over the past two years, and energy efficiency improvements are gradually improving after a drop-off during the pandemic, albeit still not enough to meet the SDG 7 target. Renewables accounted for 18.7% of total final energy consumption worldwide in 2021 – a marginal increase compared to 16.7% in 2015. Progress in energy efficiency has been slow, with only a 0.8% improvement in 2021. Moreover, while 74% of the world's population had access to clean cooking technologies in 2022, 2.1 billion people continue to depend on polluting fuels. International public financial flows in support of clean energy in developing countries increased by a record 25% - USD 15.4 billion – in 2022 compared to 2021 (Figure 13). Disparities in investment between geographies persist, with 80% of flows going to just 25 countries.

Figure 13: Current status of indicators for Sustainable Development Goal 7



Source: IEA, IRENA, UNSD, World Bank and WHO, *Tracking SDG7: The energy progress report*, 2024

In addition, IRENA began its tenure as Chair of the SDG7 custodian agencies for the 2025 edition of the Tracking SDG 7: The Energy Progress Report. A kick-off meeting was held on 26 October, followed by an event at COP29 attended by the custodian agencies, with country stakeholders, international organisations, think tanks, and development finance institutions. Participants explored best practices, assessed indicators for tracking SDG7 progress, and discussed options to enhance data collection and availability. The discussions

examined effective policy measures, delivery models, and financing mechanisms to support energy access projects, with a focus on vulnerable communities. The event also identified opportunities to strengthen collaboration among stakeholders, including governments, international organisations, civil society, and the private sector, to ensure the achievement of SDG7.

In preparations for the Global Stocktake, IRENA was invited to outline the status of renewable energy and finance in **Regional Consultations** organized by UN-Energy between February and April. At the meetings, IRENA discussed progress related to SDG 7 indicators on renewable energy and public financial flows in support of clean energy, highlighting key shortfalls leading to inadequate progress. IRENA stressed that to meet the objectives of the 2030 Agenda, the share of renewables in total final energy consumption (TFEC) would need to almost triple to 33-38% by 2030, while the flow of finance from developed to developing countries should substantially increase through official development assistance, risk mitigation and a more equitable landscape for lending.

In focus:
International Day of Clean Energy

In recognition of IRENA's leading role in accelerating the renewables-based energy transition globally, the United Nations proclaimed 26 January – the Agency's founding date – as the **International Day of Clean Energy**. The inaugural celebration coincided with the 15th anniversary of IRENA. In a video message, the IRENA Director-General stressed that "the establishment of an international day is a testament to the growing support for renewables seen worldwide. A fair, just, equitable and urgent transition towards clean energy is essential to avoid the worst of climate effects and spur sustainable development".

To commemorate the occasion, IRENA, together with the Permanent Missions of the United Arab Emirates and Panama to the UN – the two countries that had tabled the resolution - organised a virtual meeting on 25 January[22] under the umbrella of the **Renewables Talk for IRENA Permanent Representatives**, with the theme **Building a Sustainable Future: Renewables for Climate Action and Sustainable Development**.[23]

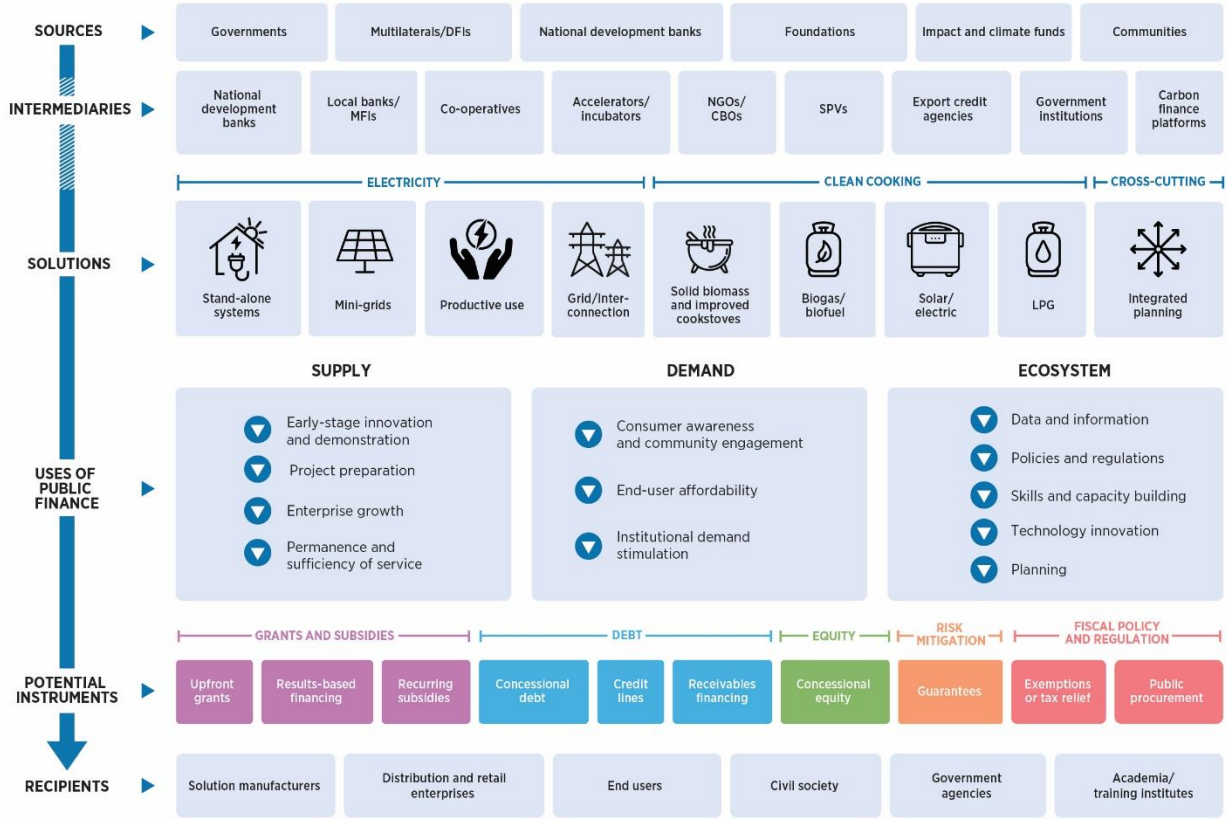
The 15th edition of the Renewables Talk brought together high-level participants from IRENA Members and partners to celebrate the International Day of Clean Energy and raise awareness about the importance of clean energy in extending access to energy worldwide. It also advocated for international efforts to realise the objectives outlined in the Paris Agreement and the 2030 Agenda and provided insights into the outcomes of COP28 negotiations regarding the advancement of clean energy.

Public finance is crucial to achieving universal energy access. While a range of technological solutions already exist for electrification and clean cooking, public financing remains essential to deploy energy services in areas unaddressed by the market, e.g. planning and building energy infrastructure and an ecosystem that supports the sustainability and resilience of energy deployment – such as education, agriculture, healthcare, industrial development, capacity building, awareness raising and skills development. IRENA's **Public finance and**

[22] More information available here.
[23] More information available here.

policy for energy access[24] brief offers a framework to guide policymakers and public financiers in identifying the necessary finance to advance energy access (Figure 14). The framework (a) maps the public finance needs across the energy access ecosystem; (b) identifies challenges in scaling up public finance for energy access; and (c) identifies stakeholder preferences across public finance instruments, intermediaries and recipients.

Figure 14: IRENA's framework for the use of public finance for expanding energy access



Notes: CBO = community-based organisation. DFI = development finance institution. LPG = liquefied petroleum gas. NGO = non-governmental organisation. SPV = special purpose vehicle.

Source: IRENA, *Public finance and universal energy access*, 2024

It is widely accepted that the uptake of renewables in Africa holds the key to the continent's socio-economic transformation as well as in tackling the challenge of growing populations and economies, by reducing reliance on fossil fuels for power generation and harmful use of biomass for heating and cooking. Yet even though Africa has an abundance of renewable resources, energy access remains overall low, with 571 million people in sub-Saharan countries still lacking it in 2022. Moreover, the region received less than 1.5% of the USD 2.8 trillion invested globally in renewable energy projects over 2000-2020, with its share dropping to less than 1% of the global total in 2022. IRENA's **Sub-Saharan Africa: Policies and finance for renewable energy deployment**[25] report examines more closely the trends of renewable energy investment and finance in Sub-Saharan Africa, driven by political commitments to the sector's deployment and underpinned by policy frameworks. The report concludes with recommendations to attract and distribute evenly significant

[24] Available here.
[25] Available here.

investments, calling for a fundamental shift in lending, and backing from the international community and multilateral development banks in the form of concessional financing, grants and tailored risk-mitigation support.

The status of the clean energy transition in small island developing states (SIDS) has two predominant contexts, each with specific challenges and socio-economic benefits related to increasing the adoption of renewable energy solutions. Some SIDS are predominantly electrified, relying heavily on imported fossil fuels. A sustainable energy transition for these countries requires integrating renewables into existing electrification schemes, thereby significantly reducing their dependency on imported fossil fuels, whilst strengthening local capacities and resources. Other SIDS have significant unelectrified populations. These countries often face economic vulnerabilities exacerbated by poverty, food insecurity, water-borne illness, lack of healthcare, volatile agriculture, deforestation and climate vulnerabilities. The least-electrified SIDS are now at a crossroads in their attempts to reach universal energy access: they can either increase access through imported fossil fuel use, or 'leapfrog' straight to clean energy by significantly scaling up progress in implementing decentralised renewable energy solutions.

To support SIDS in each of these contexts, IRENA published two companion reports. **Small Island Developing States at a Crossroads: The socio-economics of transitioning to renewables**[26] focuses on contexts where near-universal access to electricity has been achieved but where countries are still relying heavily on imported fossil fuels. The brief provides an overview of the features of grid-based electricity systems in SIDS, explores the socio-economic and end-user benefits of renewables and outlines policy priorities to help accelerate grid-linked renewable energy deployment.

The companion report, **Small Island Developing States at a Crossroads: Towards equitable energy access in least-electrified countries,**[27] focuses on SIDS with significant unelectrified populations that face economic vulnerabilities and decentralised renewable energy solutions would offer significant socio-economic and environmental gains. Arrangements for sustainable finance, technology transfer, institutional capacity-building and local skills-building will all be key in such contexts. The brief focuses on three countries – Guinea-Bissau, Papua New Guinea and Vanuatu – and examines the socio-economic benefits of energy access solutions in terms of progress potential, barriers, opportunities and recommendations for scaling up proven solutions. The reports were launched at a webinar[28] on 28 March, accompanied by two promotional videos.[29]

Within the energy community there has been growing debate on whether a 100% renewable energy system is technologically feasible, lowest cost, and most environmentally sustainable option for the decarbonisation of the global energy system. Against this backdrop, and building on the COP28 UAE Consensus momentum, the IRENA Coalition for Action published the brief, **100% renewable energy scenarios: Supporting ambitious policy targets**[30], which examines five energy scenarios: three focused on achieving 100% renewables and two striving for net-zero emissions. The brief evaluates and contrasts similarities and differences among these scenarios, providing recommendations to support ambitious policy objectives and achieve a fully renewable energy-powered system by mid-century. The brief was launched at the first part of the Annual High-Level Public – Private Dialogue, held on 16 April in the margins of the 14th session of the IRENA Assembly, offering a platform for global leaders to delve deeper into required actions, innovative pathways, and comprehensive roadmaps to achieve a net zero system by 2050. The second part of the Dialogue took place virtually on 7 May.

IRENA continued its efforts to build the capacity of educators for the energy transition as a partner of the COP 29 Climate Change Summer Camp for educators, led by the upcoming COP 29 Presidency. The training brought together 75 teachers from 35 countries to learn how to incorporate climate change education into their

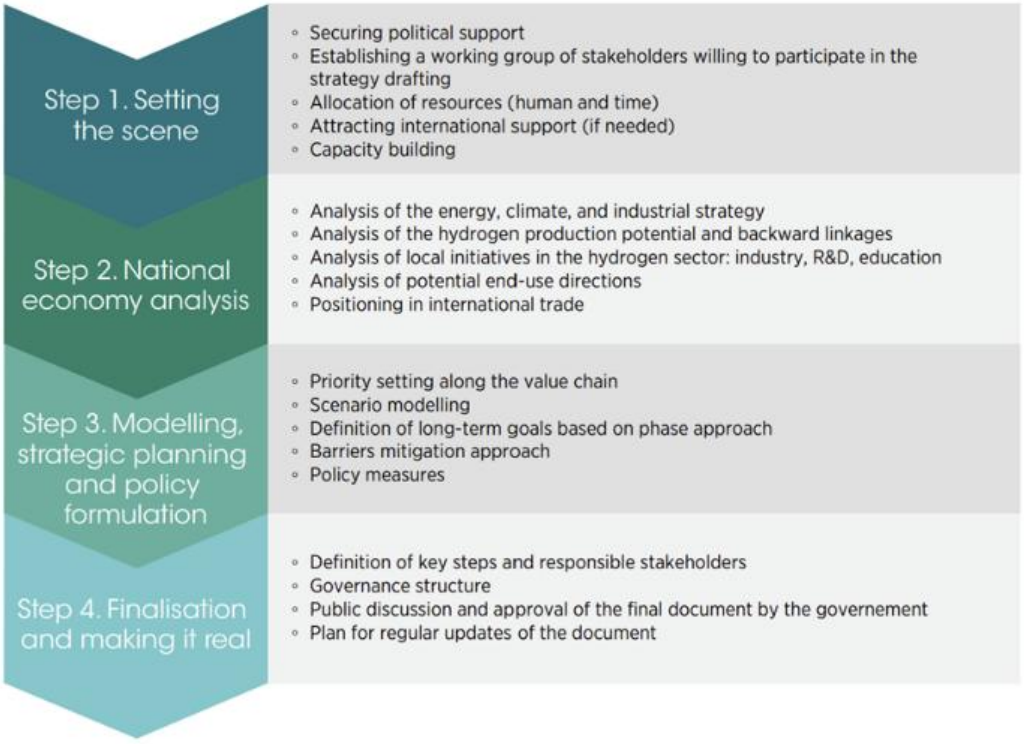
[26] Available here.
[27] Available here.
[28] Available here.
[29] https://youtu.be/_pipzgfG7I0 and https://youtu.be/wUwrkCZxLgs.
[30] Available here.

teaching practice. IRENA led the workshop components focused on renewable energy education, which explored how energy learning can be integrated into different subject areas. The training was delivered in collaboration with partners including UNFCCC, UNESCO, OCE, FEE and Teach for All.

Harnessing technology and innovation

In recent years, the potential role of green hydrogen in transforming energy systems and advancing sustainable development in developed and developing countries alike has been widely recognised. Testament to the fact is that 46 national (and supra-national) strategies and eight roadmaps on hydrogen have been drafted and published worldwide, and at least 20 more countries have been in the process of producing such documents by May. To benefit and help guide policymakers through the process of developing effective green hydrogen strategies, IRENA examined these strategies and fleshed best practises and lessons learned. The report also addresses various challenges hindering the adoption of green hydrogen as well as long-term planning, barrier identification, export considerations, target and priority setting, governance and policies. It also provides a step-by-step methodology to guide the drafting of hydrogen strategies (Figure 15). The findings are presented in **Green hydrogen strategy: A guide to design**[31] report, which is part of IRENA's ongoing analytical work on options, enabling conditions and policies to accelerate the decarbonisation of economies.

Figure 15: Flowchart for hydrogen strategy making



In collaboration with United Nations Industrial Development Organization (UNIDO) and the German Institute of Development and Sustainability (IDOS), IRENA developed the report **Green hydrogen for sustainable industrial development: A policy toolkit for developing countries**[32], which explores avenues for developing countries to benefit from the hydrogen value chain. The report identifies seven primary economic activity clusters to spark green industrialisation, foster innovation, accelerate decarbonisation and generate employment. Policy coordination, comprising four key elements, stands at the centre of strategic action

[31] Available here.
[32] Available here.

at the policy level. As such, prioritising local use of green hydrogen; aligning national objectives; starting with small- to medium-sized projects; and phasing implementation of green hydrogen production and applications are all proposed as key features.

Achieving net zero requires a comprehensive transformation of all sectors, including not just power but also end uses. Green hydrogen and its derivatives have a central role to play in reducing emissions and achieving the Paris Agreement targets. IRENA's **International co-operation to accelerate green hydrogen deployment**[33] report, developed under the umbrella of the Agency's Collaborative Framework on Green Hydrogen (CFGH), assesses progress in the area, including the development of green hydrogen supply and demand structures. The report's conclusions are a synthesis of the essential insights shared by IRENA Members and experts that participated in the Framework's meetings held in 2023 focusing on demand and supply structures for green hydrogen.

To align with the 1.5-degree goal of the Paris Agreement, global electrolyser capacities need to grow from negligible numbers today to 5772 GW by 2050. At the request of the 2023 Japan G7 Presidency, IRENA produced the **Shaping sustainable international hydrogen value chains**[34] report analysing the potential complexities of international hydrogen value chains, extending from developing countries to future renewable hydrogen demand hubs. According to the findings hydrogen value chains can be highly complex, requiring a broader sustainability approach, while encompassing economic, governance, and environmental aspects. The report highlights the socio-economic benefits and potential risks for developing countries, whose primary strategy is to establish a hydrogen sector focused on export. The report also offers suggested actions addressing the demand and the supply side of the emerging renewable hydrogen sector as well as policy recommendations to tackle the negative externalities by expanding local value creation and building a local market, among others.

Analysis is increasingly showing that derivative commodities produced using green hydrogen, such as low-emission ammonia, low-emission methanol, and iron and steel, will play a significant role in the global trade flows associated with hydrogen. In recognition of this, IRENA developed the **Global trade in green hydrogen derivatives: Trends in regulation, standardisation and certification**[35] report. The report builds upon IRENA's 2023 report on certifications and regulations to enable hydrogen trade to include derivative commodities and goes beyond by exploring the interconnections and synergies between the frameworks and schemes designed for green hydrogen and its derivative products. IRENA analysis also finds that there is a gap between the progress in developing regulations for hydrogen and for its derivatives, with the latter lagging substantially.

A relatively nascent renewable energy technology that has been attracting increasingly attention due to its high-capacity factors and growing competitiveness is offshore wind. Floating offshore wind energy is widely recognised as holding an even greater potential. G7 countries in particular are increasingly scaling up national efforts to enhance their floating offshore wind capacities. Commissioned by the 2023 Japanese G7 Presidency IRENA's **Floating offshore wind outlook**[36] report explores the current state of the market for floating offshore wind, as well as recent technological developments and identifies policy considerations to accelerate its deployment and help achieve the tripling goal.

According to the 2023 edition of the **Tracking SDG7: The energy progress report**[37], an estimated 2.3 billion people remained without access to clean cooking in 2021, indicating that the world is alarmingly off-course in its efforts to meet Target 7.1 by 2030. IRENA's report, **Advancing renewables-based clean cooking solutions: Key messages and outcomes**[38], summarises key findings drawn from a series of virtual knowledge

[33] Available here.
[34] Available here.
[35] Available here.
[36] Available here.
[37] Available here.
[38] Available here.

exchanges organised in 2023, with the aim of facilitating in-depth dialogue on various technologies among practitioners operating in sub-Saharan Africa and Asia.

The existence and availability of standardised renewable energy data is central to policy making in the context of the energy transition. However, policymakers lack a comprehensive energy taxonomy that adequately addresses the nuances of renewable energy sources, especially in the context of the climate crisis. To address this issue, IRENA developed the **Energy taxonomy: Classifications for the energy transition**[39]. IRENA's proposed energy taxonomy clusters all energy sources, products and uses under three main groups within the energy field: non-renewable energy, renewable energy and energy storage. It goes beyond traditional classifications by classifying synthetic fuels like hydrogen based on their origins and introduces a new segment for energy storage to bring clarity to the diverse sources of energy used in storage technologies. The taxonomy constitutes a fist attempt at harmonisation and will remain a constantly evolving tool that is designed to improve the precision of energy statistics in line with global standards.

IRENA's **Global Network of Long-Term Energy Scenario practitioners (Global LTES Network)** has made significant progress in assisting government energy planners and energy scenario practitioners in exchanging experiences and practices to enhance the development and use of LTES through extensive outreach, knowledge exchange and synthesis of practices across the global energy planning community. Between January and May, the Global LTES Network organised dedicated **webinars for peer-to-peer learning** within the energy scenarios practitioner's community. The webinars addressed pressing topics for the clean energy transition such as net-zero pathways, climate target achievement and the impact of the UNFCCC global stocktake in the energy planning process. The webinar series will continue throughout 2024, further enriching these key dialogues.

On 9-11 September, IRENA convened the fifth **International Forum on Long-Term Energy Scenarios (LTES) for the Clean Energy Transition**[40] in Bonn, Germany. The event, held in hybrid format to allow participation from a wide array of government officials and experts, explored innovative approaches and strategies for developing energy scenarios that support a global shift to a sustainable and efficient energy system. Key areas of discussion such as attracting investments, promoting an effective communication of LTEs; aligning Energy and Climate Strategies; and game changing emerging technologies like hydrogen, among others, were elaborated.

[39] Available here.
[40] More information available here.

Nine years after IRENA had hosted the **International Energy Workshop (IEW)** – the leading conference for the international energy modelling community - the Agency reprised its role and convened the 42nd edition of the Workshop in Bonn on 26-28 June.[41] The conference featured three plenary sessions with three key themes respectively, and over 140 presentations in parallel sessions. Participants had the opportunity to delve into discussions on ways to include climate change considerations in today's models; the policy aspect of energy modelling; as well as data advances in energy modelling.

Since 2021, IRENA's System Planning Test-Continental Masterplan (SPLAT-CMP) model has been the underlying optimisation model of the Africa Continental Master Plan (CMP) for electricity generation and transmission. The CMP initiative was undertaken to support the AU African Single Electricity Market (AfSEM) initiative launched that year. To enhance transparency and reproducibility of the modelling results as well as increase awareness and understanding of the model results, IRENA developed the **Advancements in continental power system planning for Africa**[42] report**.** The report offers a detailed description of the methodology behind the SPLAT-CMP model and provides possible strategies for further model improvement.

Building on the success of the "Energy Solutions for Cities of the Future" programme, IRENA has been supporting **Mission Innovation** by organising nine virtual sessions to facilitate knowledge exchange among its member cities under the Urban Transition Mission. The meetings focus on renewable energy technologies and their applications in cities and will take place from 14 February to 19 June. The programme has been providing a platform for urban energy planners/officials and experts from local energy authorities and utilities to not only learn systematically about renewable energy options in distributed power generation systems, buildings, and urban transportation, but also share their experiences and success stories, and discuss the challenges encountered.

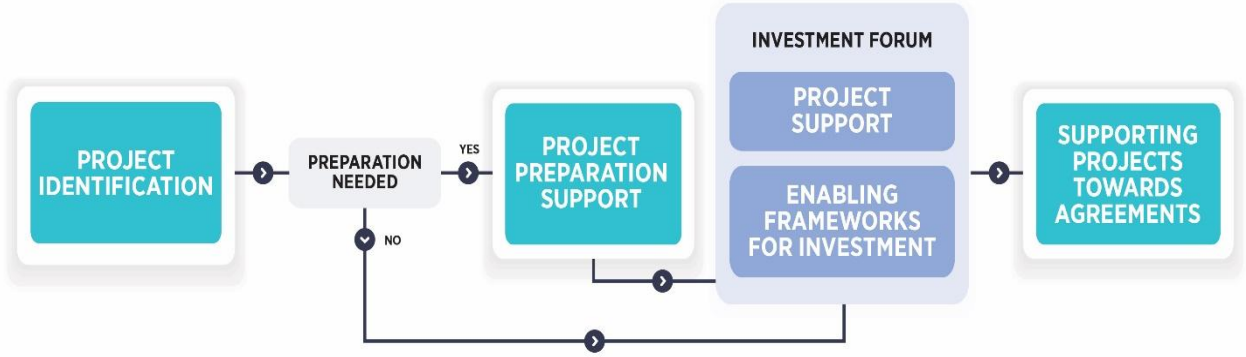
[41] More information available here.
[42] Available here.

Investments for a sustainable future

IRENA supports the acceleration of renewable energy deployment through the **Climate Investment Platform (CIP)** and the **Energy Transition Accelerator Financing Platform (ETAF)**, with a unique service offering available to Members. In addition, IRENA provides technical assistance, support, and capacity building to facilitate project development, which feeds into the creation of pipelines for investment-ready projects to benefit from the platforms.

The CIP acts as a bridge between renewable energy projects and actors seeking to contribute to renewable energy project development primarily through finance and, in some cases, technical assistance, amongst others. Once projects qualify for support under the CIP, IRENA provides technical assistance to develop comprehensive Project Information Documents (PIDs) that verify and summarise all the relevant information necessary to attract financing. Projects are then introduced to financial partners by presenting relevant PIDs. A project and a financier are considered matched once IRENA's introduction leads both parties to agree to explore the option of funding a project (Figure 16).

Figure 16: CIP project support cycle.



To-date, CIP has received a record of 497 projects, with 209 projects eligible for support. Of these, 109 projects are actively supported; 64 have benefitted from technical assistance support, 14 were matched with interested financing partners, and five projects achieved financial close. The regional distribution of projects is as follows: 155 are from sub-Saharan Africa, 52 are from South America, 28 are from MENA, 35 are from Southeast Asia, 42 are from South Asia, 16 are from Southeast Europe, nine are from Central Asia, and 30 are from SIDS (Table 2 and Table 3).

Table 2: Number of CIP projects supported by region

Region	# of total projects	# of projects supported
Central Asia	10	0
Central America	15	0
East Asia	4	0
Europe	58	2
Middle East	17	2
North Africa	12	0
North America	12	0
SIDS	32	22
South America	52	22
South Asia	43	8
Southeast Asia	38	13
Sub-Saharan Africa	198	40
Other	6	-
Total	**497**	**109**

Table 3: Climate Investment Platform

Cumulative capacity of projects supported (109 projects)	2 282 MW
Cumulative capacity of projects that have gained interest from financiers (14 projects)	416 MW
Cumulative value of projects that have gained interest from financiers	USD 804.04 million
Cumulative capacity of projects that have reached financial close (5 projects)	64.8 MW
Minimum project size (MW) that gained interest from financiers	2.2. MW
Maximum project size (MW) that gained interest from financiers	117 MW
Region with most projects	Sub-Saharan Africa
Total cost of projects that have reached financial close	USD 84.9 million

The **Energy Transition Accelerator Financing (ETAF) Platform**, an initiative led by IRENA[43], was established to mobilise capital from global financial institutions such as Multilateral Development Banks, Development Financial Institutions and the corporate sector. The primary objective is to expedite the implementation of renewable energy projects and accelerate the energy transition in developing countries. The platform aims to mobilise an initial USD 1 billion in soft pledges for project investment by 2023 and expand to USD 5 billion by 2030. It also aims to facilitate investments supporting a minimum of 1.5 GW of renewable energy technologies by 2024, increasing to at least 5 GW by 2030. This will be achieved through backing renewable-supportive infrastructure, including electricity transmission services and storage.

Through the assessment process, ETAF has identified the following critical barriers in their recommendations to partners: i) insufficient project readiness or completeness; ii) inadequate financial structure; iii) project size considerations; iii) insufficient alignment with SDGs; and iv) limited track record. When proposals meet the

[43] Within the ETAF structure, IRENA acts as the Secretariat and manages the ETAF platform from project sourcing to financial close.

ETAF eligibility criteria but are deemed incomplete for assessment, proponents are given the chance to resubmit.

By the end of 2023, ETAF had mobilised USD 4.15 billion in soft commitments from the following eleven partners: the Abu Dhabi Fund for Development (ADFD), the Asian Infrastructure Investment Bank (AIIB) and Masdar – the three founding financing partners who joined ETAF at COP27 in 2022 with a total pledge of USD 900 million; and the OPEC Fund, the Inter-America Development Bank (IDB), the Emirates Development Bank (EDB), the Islamic Development Bank (IsDB), the European Bank for Reconstruction and Development (EBRD), HSBC and the International Finance Corporation (IFC), who joined by - or at - COP28, bringing more than USD 3 billion in pledges. ETAF also offers project developers guarantees and de-risking products through its partners, Swiss Re, Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) and Multilateral Investment Guarantee Agency (MIGA).

ETAF is accepting eligible renewable energy project submissions through its online platform, following an official Call for Projects launched at COP27. Over 82 project proposals have been submitted to the ETAF Platform, representing over 6.04 GW in capacity. Close to half (39 out of 82) of the received proposals are located in countries in Sub-Saharan Africa, the leading region in the number of received proposals (Table 4). Responding to members' demand, the IRENA Coalition for Action organised a webinar in March to present ETAF, attracting forty CoA members and leading to additional project information submissions from some of them.

To date, the Platform partners have recommended 22 proposals that fulfil the requirements in four assessed dimensions: energy transition potential; implementation readiness; developer track record; and commercial viability. These projects require a total investment of close to USD 4.17 billion and have a 2.9 GW power generation potential (Table 5). Out of the 22 recommended projects, 16 projects have received interest from at least one ETAF Partner, and further engagements are underway with partners, who are reviewing projects to ascertain eligibility for their funding commitments.

Table 4: Number of ETAF projects proposed and recommended.

Region	Total project proposals	Projects recommended to ETAF partners
Central America	4	3
Central Asia	6	4
Middle East	4	2
North Africa	5	0
North America	2	0
Pacific	1	0
SIDS	4	1
Southeast Asia	1	0
Southeast Europe	8	2
South America	4	0
South Asia	4	2
Sub-Saharan Africa	39	8
Total	**82**	**22**

Table 5: ETAF Platform

Number of project proposals supported	22
Cumulative capacity of projects supported	2 687 MW
Minimum project size (MW) that has gained interest from financiers	5.34 MW
Maximum project size (MW) that has gained interest from financiers	1000 MW
Cumulative capacity of projects that have gained interest from financiers	897 MW
Cumulative value of projects that have gained interest from financiers	USD 3.4 Billion
Total cost of projects that have reached financial close (3 projects)	USD 1 Billion
Location of projects that have gained interest from partners	Sub-Saharan Africa, Central Asia

The three technologies, attracting most interest from partners, are solar PV (utility scale), hydropower and onshore wind. So far, three solar PV projects in Uzbekistan, with a total expected installed capacity of 897 MW, have achieved financial close with support from ETAF partners. These projects generate electricity to power more than 1 million homes, or 5 million inhabitants, while reducing emissions by more than 1 million tons of CO_2 equivalent ($MtCO_2e$) annually.

A solar plant in Uzbekistan installed by one of the ETAF partners.

IRENA is working together with the founding partners to create and implement the ETAF Charter. This document will outline the governance framework for partner collaboration, highlighting the roles and responsibilities of all partners. Five partner meetings were conducted in 2023 covering various aspects, including governance, project eligibility, mobilising new partners with additional financial, de-risking and technical assistance products, and improvements to ETAF's operational procedures, among others. Together with ETAF founding partners, IRENA signed the ETAF Joint Declaration in October 2023. This document

outlines the governance framework for partner collaboration, highlighting the roles and responsibilities of all partners, including IRENA as ETAF Secretariat. In addition, the operational manual was drafted to guide the day-to-day activities carried out by the Secretariat while also highlighting procedures that are expected to be completed by partners to deliver on ETAF's mandate. The draft manual is under review and is expected to come into effect in 2025.

A forum for partners was held in January to formally introduce the seven partners, who joined at COP28. Among the topics of discussion were the new partnership onboarding strategy for 2024, prioritising the project pipeline, activities in 2024, and a debriefing from the last project review meeting. The second Forum of Partners took place in June 2024 and the third one is scheduled to take place by the end of the year. Africa50[44] received approval from all thirteen partners to join the Platform this year and is anticipated to collaborate with the Secretariat on building a pipeline of bankable projects in Africa.

The **IRENA Investment Forums** are a key element in the Agency's strategy to support the mobilisation of investments in energy transitions. They bring together decision makers from the public and private sectors including the financial community, development partners and other relevant stakeholders to drive energy transition investments. Selected projects are featured for matchmaking with financial institutions participating in the Forums for the purpose of establishing an engagement that could lead towards a financial investment in the project(s). The CIP is the main channel by which projects are sourced and supported with the preparation of documentation and technical assistance, where applicable, for the purpose of being presented to investors.

In focus: APRA Investment Forum

The Government of Kenya and IRENA convened the first **APRA Investment Forum**[45] in Nairobi, Kenya on 14-16 October, to help create and implement a pipeline of projects in support of APRA objectives. The Forum featured high-level sessions on investment priorities, enabling frameworks, innovative financing, and supply chain development in APRA countries as well as multi-stakeholder discussions and project matchmaking. It gathered government representatives as well as representatives from the private sector, reaching more than 330 attendees.

Two pre-Forum days on 12 and 13 October were dedicated to training and project pitching for developers from APRA countries and international developers active or interested in the region. At the Ministerial Debate, APRA Ministers elaborated on their respective national priorities and strategies to accelerate the energy transition and green industrialisation in line with the objectives of the Nairobi Declaration on Climate Change. Members also discussed real-life challenges faced by their countries and renewed their commitments to supporting APRA's implementation. The discussions served to set the stage for the ensuing dialogues, aiming to deliver meaningful outcomes.

The Debate was followed by two High-level panels on "APRA Driving Sustainable Energy Future and Green Industrialisation" and "Boosting Energy Transition Finance and Investment in APRA Countries". Both panels outlined the opportunities and challenges present in APRA countries and highlighted the pressing policy and regulatory actions to turn these opportunities into reality, for Africa's energy transition and industrialization, in line with the Partnership's objectives.

[44] Established by African governments and the African Development Bank, Africa50 helps bridge Africa's infrastructure funding gap by facilitating project development, mobilising public and private sector finance, and investing in infrastructure on the continent.
[45] More information available here.

The Forum fostered collaboration, addressed project development challenges, and provided opportunities for investment through targeted matchmaking and technical support. Overall, it held 52 matchmaking sessions and more than 24 bilateral meetings. In total, 25 projects, with an aggregated installed capacity of 900 MW were submitted with an aggregated project cost of USD 2.7 billion (Table 6).

Table 6: APRA Investment Forum

APRA Member	No. of projects featured	Capacity (MW)	Other metrics	Investment required (USD million)	Total funding (USD million)
Ethiopia	3	155	46 000 L of biogas/a	84	834
Ghana	1	52		32	39
Kenya	3	420	270 GWh of H_2 annually	64	1 055
Namibia	1	-	142 GWh of H_2 annually	80	240
Rwanda	1	80	30 GWh BESS	73	87
Sierra Leone	4	110.4		301.8	304.8
Zimbabwe	12	88.13		80.9	97.3

To increase the project portfolio from developing countries, ETAF Secretariat had been actively engaged in APRA activities throughout 2024. Specifically, the Secretariat participated in three APRA consultative workshops presenting and raising awareness about the Platform. As a result, there has been a significant increase in project information submissions from APRA countries, with 15 PIDs submitted by August compared to nine in December 2023.

IRENA is committed to supporting its members in developing and enhancing their institutional capacity for structuring energy project financing deals, as well as in creating a conducive policy environment attracting project investments in renewables. To this end, IRENA held a four-day long ***Project Finance Capacity Building Workshop for Pacific SIDS***[46] on 16-19 January, targeting government officials as well as private sector stakeholders engaged in renewable energy projects. The workshop brought together 17 participants from diverse backgrounds, encompassing project developers, financial institutions, and government representatives from seven SIDS including the Federated States of Micronesia, Fiji, Palau, Samoa, Solomon Islands, Tuvalu and Vanuatu. It featured both theoretical and practical modules on project finance and included a day dedicated to project pitching, during which participants had the opportunity to present their projects. The participants were also urged to submit projects via CIP and ETAF once they had completed the requisite studies and documentation.

IRENA through the **SIDS Lighthouses Initiative (LHI)** is providing support to the Government of Vanuatu[47] to identify and develop a strong pipeline of renewable energy projects. This support aims to help Vanuatu achieve its ambitious goals of transitioning to 100% renewable energy in electricity generation by 2030, while also improving energy access and resilience, and supporting broader sustainable development objectives. An in-country mission was conducted from 19-29 July, to assess local conditions, consult with key stakeholders and gather essential data that will significantly inform the selection and prioritisation of projects that best meet the country's needs and long-term vision. The consultations also highlighted best practices, challenges and data gaps as well as provided crucial input for refining project documents.

Through the **Global Atlas for Renewable Energy Initiative**[48], IRENA continues to support its Members in assessing their renewable potential, to assist in planning and deploying renewable projects at different scales. In 2024, IRENA published **The Global Atlas for Renewable Energy Initiative: 10+ years in the making**[49], which presents the knowledge platforms and country-level technical analyses developed throughout the years to increase access to capital and spur renewable energy investments. Furthermore, IRENA published **the** companion report[50] that describes all the relevant datasets hosted on the Global Atlas platform – a ground-breaking free web GIS renewable resource tool developed to keep the global community updated on the plethora of relevant datasets for supporting renewable projects development. To date, the platform comprises more than 1 000 renewable resource datasets, as well as ancillary information, at different scales – global, regional and country-specific – from 50 leading international technical institutes and private companies. Using these datasets, IRENA supported the Republic of Iraq with the Iraq Solar and Wind Atlases and assessed the techno-economic potential for developing solar and wind projects for SIDS. It has also been used to support Montserrat via its pre-feasibility site assessment service covering five onshore wind sites earmarked for potential utility-scale project development. The assessed sites for Montserrat have a cumulative prospective installed capacity of 20 MW, which will support the country in progressing with feasibility studies and subsequent project development.

[46] More information available here.
[47] At the request of the Department of Energy within the Ministry of Climate Change Adaptation, Meteorology, Geo-hazards, Energy, Environment, and National Disaster of Vanuatu.
[48] More information available here.
[49] Available here.
[50] Available here.

At the city scale, the Agency has also scaled up the **SolarCity Simulator**[51] – an innovative web-based application that enables users to assess the technical and financial potential of rooftop PV systems – by covering three cities in Belize (Belize City, San Pedro and San Ignacio) and one in Guyana (Georgetown). These simulators were released at the Caribbean regional consultative workshop in Jamaica (see below). In addition, capacity-building workshops on rooftop solar photovoltaic (PV) potential assessments were conducted online for Belize, Burkina Faso and Mauritius, while the workshop for the Solomon Islands was conducted during IRENA's workshop[52] on the Launch of the Solomon Islands Renewable Readiness Assessment Report.

Latin America possesses significant untapped potential for biomass production, owing to its advantageous climate, abundant land resources and robust agricultural sector. However, the region's bioenergy potential has been only partially developed, with some countries boasting significant production bases and well-established markets, while others are at the first stages of exploration. To explore the potential of the region, IRENA organised a workshop in São Paulo on 17 March 2023, featuring public and private sector representatives, focusing on Argentina, Brazil and Colombia. IRENA's **Sustainable bioenergy pathways in Latin America: Promoting bioenergy investment and sustainability**[53] report presents key findings that emanated from the discussion.

Along similar lines, IRENA developed the **Sustainable bioenergy potential in Caribbean small island developing states**[54] report, which provides a preliminary assessment of the bioenergy potential of six small SIDS, namely Cuba, the Dominican Republic, Haiti, Jamaica, Trinidad and Tobago, and Guyana. These countries comprise about 94% of the group's area and 93% of its population. The report evaluates the feasibility of utilising different sources like sugarcane, oil palm and municipal solid waste for bioenergy production while considering the essential equilibrium between environmental well-being and socio-economic advantages within these regions. The report has been translated into Spanish as well.[55]

In supporting its Members to improve electricity access, IRENA has assessed the potential for battery storage to provide affordable access through solar PV mini-grids in West Africa – mainly in Burkina-Faso, Mali, Nigeria and Senegal. The insights from this assessment are available at the **West-Africa Electrification platform**,[56] to inform planning. This platform explores several pathways to universal access, identifying potential markets and showcasing the role of battery storage in mini-grids. A summary report is also being drafted.

[51] More information available here.
[52] More information available here.
[53] Available here.
[54] Available here.
[55] Available here.
[56] More information available here.

International cooperation and partnerships

IRENA remains committed to in-person engagement with Members, to exchange views and enhance strategic collaboration through the organisation of over 40 high-level Members' visits by Heads of State, Ministers of Foreign Affairs, Ministers of Energy, Special Envoys for Climate Change, etc. and bilateral meetings at IRENA headquarters. IRENA is also engaging and expanding outreach with States in Accession and non-Members to reiterate the benefits of joining IRENA, as well as to expedite the ratification and accession processes. In addition, in recognition of the value of collaborating with intergovernmental organisations, academia and private sector representatives, IRENA has benefited from the knowledge exchange and their expertise as well as to identify and engage in strategic collaboration to advance the energy transition.

This year, the 14th session of the **IRENA Assembly** took place in two parts under the theme 'Outcome of COP28: Infrastructure, Policies and Skills for Tripling Renewables and Accelerating the Energy Transition'. During **Part I**[57], which took place in a virtual setting on 15 January, Members had the opportunity to consider and discuss a number of programmatic and institutional matters relevant to the Agency's future work and direction. They also considered several administrative and institutional matters are crucial to IRENA's functioning.

14 Assembly Part I

Marking the 4th World Energy Transition Day, **Part II**[58] of the 14th session of the IRENA Assembly and related meetings was convened in-person from 17 to 18 April. The Assembly served to bring together global leaders and energy decision-makers to take stock of operational plans and policies and highlight the concerted action undertaken to implement the energy transition across countries, regions, and the world. There were over 1400 registered participants to Part II of the fourteenth session of the Assembly from 137 Members and the European Union, eight States-in-Accession and other United Nations Member States, including 68 represented at ministerial level, together with representatives from 178 organisations.

14 Assembly Part II

[57] More information available here.
[58] More information available here.

The Opening featured a **High-level Plenary Session on Tripling of Renewables,** aligned with the Assembly theme. The session set the scene for the Assembly's deliberations and served to identify concrete and immediate actions to drive the implementation of the COP 28 outcomes. The COP28 targets, adopted from IRENA's flagship World Energy Transitions Outlook (WETO), set a direction for the future of the global energy system in line with the Paris Agreement. The sessions also explored how to harness international cooperation as a catalyst of change, effective monitoring of the progress and action on course correction. Participants also discussed how IRENA can best leverage its comparative advantages to accelerate the implementation of the tripling pledge and what targeted support it can provide for the next round of NDCs.

On the Pre-Assembly Day on 16 April and during the Assembly, IRENA organised several Ministerial and High-level Meetings, focusing on critical and pertinent issues for the energy transition.

The **High-Level Dialogue on Energy Transition in Latin America and the Caribbean: A Regional Pathway** provided a platform for an exchange on scaling up renewables-based energy transition in the region, while discussing how the COP28 Pledge can be put into action in the region, with a view to supporting its ambitions to achieve inclusive and sustainable growth and transition away from fossil fuels. Immediate opportunities to achieve the energy sector transformation as well as enabling technology, finance and policy choices were identified.

The SIDS Ministerial on Charting a Resilient and Sustainable Energy Future for SIDS succeeded in setting the direction for the upcoming 4th International Conference for SIDS. At the Ministerial, participants had the opportunity to discuss sustainable development and climate priorities as well as ways to ensure the continued effectiveness of initiatives (*e.g.* the SIDS Lighthouses Initiative) in mobilising the necessary finance and boosting decarbonisation. The importance of maintaining inclusive and strong partnerships was reiterated.

The **High-level Plenary session on Accelerated Renewable Deployment in Africa (APRA)** explored strategies for boosting renewable energy in Africa through international collaboration and ways to overcome challenges, leverage partnerships for greater renewable energy investment and build a resilient local private

sector in Africa's renewable landscape. During the moderated discussions, panellists pointed to the importance of contextualised support, reiterating the fact that each African country is unique in its needs and priorities.[59] The **High-level Plenary session on Accelerating the Development of Bankable Renewable Energy Projects – Leveraging IRENA's Facilitation Platforms for Global Transition** focused on country and regional challenges impeding project development and deployment, and possible solutions to overcome them. Participants addressed the importance of integrating national efforts with IRENA's initiatives to foster renewable energy projects, as well as how each individual country could enhance their renewable energy initiatives, focusing on overcoming barriers and fostering international collaboration.

The dedicated event on the **Integration of CMP as an enabler to support project preparation and mobilizing financing for renewable energy projects** served to present key outcomes from the CMP initiative and encouraged collaboration among members to overcome financing challenges while advocating for favourable financial frameworks, investment policies.

The event on **Regional Energy Transition Outlooks for Africa – Pathways to 2050** introduced the African Regional Energy Transition Outlook (RETO) as a basis to foster discussion with key stakeholders concerning different views on the energy transition in Africa and how investments in renewables can leverage socio-economic development in the continent. The key outcomes of this discussion will serve as inputs to the RETO scenarios.

The **Roundtable on the Role of Public Finance and Policy in Achieving Universal Energy Access under SDG7**[60] brought together government leaders, development bodies, donors, the private sector and energy practitioners, to explore public finance and policy roles in improving energy access as well as cooperation needs and strategies to leverage public funds for extending essential energy services, supporting sustainable development goals, and enhancing local capacities within the energy sector. IRENA's brief, **Public finance for universal energy access** (see section above), was also presented.

The **GOWA Ministerial Dialogue on Scaling Finance for Offshore Wind as Key to Reach the Tripling Renewables Goal** focused on how best to utilise de-risking tools, blended finance and partnerships to overcome market challenges in emerging regions.

The **Ministerial Roundtable on Geopolitics of Energy Security**[61] served to share insights and lessons learned, while also looking at future energy security challenges as the world moves towards renewable energy. Discussions also focused on the major geopolitical shifts set to profoundly influence energy trade dynamics, alter international dependencies and reshape the geopolitical landscape. IRENA's report, **Geopolitics of the energy transitions: Energy security** (see section above), was launched at the meeting. The report calls for new perspectives on energy security in the renewables-based era.

Policies and strategies to speed up the energy transition, ensure inclusivity and enhance local benefits were explored at the **Policies and Skills for an Accelerated Energy Transition** meeting. Participants discussed deployment methods, as well as auctions and renewable energy targets, as means to signal long-term commitment, and ways to bolster supply chains and workforce skills. With a particular emphasis on overcoming skills shortages, the discussion also focused on scaling education and training, including upskilling and preparing youth for renewable energy jobs.

The **Accelerating ASEAN's Growth and Resilience: Grid Interconnections Power the Tripling of Renewables** event brough together various stakeholders to create a united vision on how connecting power

[59] More information available here.
[60] More information available here.
[61] More information available here.

grids can help solve energy, climate, and development issues in the states of the Association of Southeast Asian Nations (ASEAN).

The event on **Enablers for trade in green hydrogen and derivatives** focused on the catalysts for international trade in green hydrogen and its derivates, with aims to identify key drivers, policy frameworks, and technological advancements that can facilitate the global exchange of green hydrogen, fostering a sustainable energy transition.

The **Scaling-up Sustainable Bio-based Energy and Fuels in Emerging Markets** event was an opportunity to identify methods to utilise sustainable biomass in emerging markets to foster sustainable circular bio-economies. It also served to showcase advancements in bio-based cooking technologies and sustainable aviation fuels, highlighting their impact on sustainable bio-economies as well as successful risk mitigation strategies and the importance of supportive policies.

The **Harvesting Synergies: The Water-Food-Energy Nexus for Enhanced NDCs** meeting focused on the crucial connections between water, food and energy systems, emphasising the need for a transformative approach to sustainability and climate commitments. The discussion sought to motivate stakeholders across different sectors to exchange strategies and innovations in sustainable agriculture, emphasising the use of renewable energy.

The event on **Electrification of Road Transport Enabling Policies and Systemic Innovation** explored policies and innovations supporting the electrification of road transport, bringing together policymakers, experts, and industry leaders to discuss the transition to renewables-based electrification for various vehicle types. Policy insights and successful practices were shared from different markets, and IRENA provided inputs on its work to promote road transport electrification.

The session on **Participatory Strategies for Developing Just and Renewable-Based Energy Pathways** emphasised the importance of inclusive and cooperative energy planning processes. It highlighted the critical role of inclusivity in developing long-term energy scenarios and shaping policies to enhance social inclusion and cross-governmental cooperation for strategic national planning. Successful country examples were showcased to illustrate these aspects. The discussion also presented key findings from the work of IRENA's Global LTES network, offering practical insights to enhance stakeholder involvement and foster effective dialogue in energy planning.

The ninth edition of the **IRENA 2024 Legislators Forum** was held under the theme Building Blocks for a Renewable Future: Accelerating Progress Towards the COP28 Pledge. At the meeting, participants discussed the crucial role of a holistic policy approach, focusing on not deployment and enabling policies, structural changes for a just transition, and the modernisation of energy infrastructure to support a renewables-based system. Discussions also focused on ways to advance renewable energy within Legislators' regions, considering the urgent climate action needed and the ambitious COP28 pledge to triple global renewable energy by 2030. In addition, the **IRENA Legislators Dialogue on Power Up the Future** event– aimed specifically at young people – was held to spark a vital conversation between present and future leaders and explore ways to engage young leaders in renewable energy policymaking and forge a shared commitment to building a sustainable future 100% powered by renewable energy.

This year's **High-Level Public-Private Dialogue** was convened under the theme Building momentum towards a 100% Renewable energy system. Building on the achievements of COP28, the Dialogue called for global strides towards the achievement of ambitious renewable energy goals and enhanced policy innovation. Discussions also focused on the importance of enhancing cross-sector collaboration, maintaining COP28's momentum for ambitious climate and energy efficiency targets, and exploring innovative strategies for electrification and sustainable energy use.

The pivotal role of women and girls in advancing the transition to a sustainable economy and renewable energy cannot be overstated. The fifth edition of the **Women in Diplomacy** event presented a unique opportunity to

strengthen the network of female diplomats engaged in renewable energy and climate change to amplify their pivotal roles in shaping a sustainable future and foster collaboration toward achieving shared goals. The theme of the meeting was Synergies for Change: Women – Diplomats Driving Joint Efforts in Renewable Energy and Climate Action.

IRENA's Youth Forum[62] was convened under the theme Youth at the Core of a Just Energy Transition: Skills, Empowerment and Innovation event on 16 April. The 2024 edition of the Forum aimed to not only foster discussions but also equip young participants with the tools and knowledge necessary to shape a more sustainable and inclusive energy future. During the session, participants had the opportunity to explore and promote actions in three main areas: a) skills for a just energy transition; b) empowering youth voices in energy agendas; and c) fostering youth-led innovation in sustainability.

The dialogue also aimed to bridge knowledge gaps, enhance global education and training, and provide practical skills for renewable energy careers, seeking to ensure young people's perspectives are integrated into energy agendas and to support their innovative solutions. In a dedicated effort to foster stronger connections with youth, IRENA introduced the IRENA Youth Social Media Ambassadors for the IRENA Youth Forum by involving four youth delegates to take photographs and provide coverage of the event.

IRENA organised a youth event on **Exploring Youth Entrepreneurial Solutions in the Sustainable Energy & Green Sector**, held at the IRENA Pavilion during the World Future Energy Summit convened in April in Abu Dhabi. Discussions highlighted the important role of youth in being at the forefront of creating disruptive innovations and entrepreneurial solutions in the sustainable energy and green sector. It also showcased successful entrepreneurs supported by IRENA through various programmes, including the IRENA NewGen Accelerator Programme for Youth, and shed light on the opportunities and challenges faced by young green entrepreneurs.

On 18 March, IRENA launched for the second year, the **IRENA NewGen Renewable Energy Accelerator (NewGen)**[63]**,** aimed at supporting young entrepreneurs and innovators in driving the renewable energy transition. NewGen provides capacity building, mentorship and other resources to youth-led projects and start-ups that are developing innovative solutions to advance the adoption of renewable energy at the global level. NewGen is open to youth-led projects and start-ups with a focus on innovative solutions in areas such as energy storage, grid integration and energy efficiency. Selected participants will receive training, mentorship and other resources to help them develop and scale their solutions. They can also compete for the IRENA Youth Award, and other engagement opportunities throughout the Acceleration programme.

[62] More information available here.
[63] More information available here.

IRENA's **Utilities for Net Zero Alliance (UNEZA)**[64], established at COP28, provides a meaningful international platform for cooperation among power utilities to address and overcome common barriers to the realisation of net-zero ambitions and more near-term emissions reduction targets. At the 14th IRENA Assembly **Ministerial Roundtable on Infrastructure for the Energy Transition: Utilities for Net Zero Alliance**, participants addressed the crucial role of infrastructure in the energy transition and in achieving the goal of tripling renewables by 2030. Crucially, UNEZA members adopted the UNEZA Roadmap to 2030 that addresses key challenges and expanding impact beyond the Alliance and includes the joint target to raise total renewable energy capacity to 749 GW by 2030, an increase of 2.5 times relative to 2023.

The Roadmap is accompanied by the UNEZA Plan of Action[65] that addresses the pressing need to scale and modernise global grid infrastructure to support clean power development and the tripling of renewables by 2030. Framing the priorities of the UNEZA members, the 'Global Infrastructure Program' strategy was developed, focusing on key priorities around infrastructure upgrades and UNEZA's actions in the coming years. Members have committed to significant investment programmes to reinforce, digitalise and modernise grid infrastructure in line with the global benchmark of a doubling by 2030, subject to regulatory frameworks and consenting regimes being aligned to this ambition. To accelerate the energy transition, six focus areas have been defined where actions along four pillars can alleviate challenges in the ecosystem.

UNEZA members serve more than 300 million customers worldwide. IRENA hosts the Alliance's Secretariat, supported by partners including the UN Climate Change High-Level Champions, International Electrotechnical Commission, Global Renewables Alliance, Coordinador Eléctrico Nacional, and Green Grids Initiative. Membership is open to utilities, developers, power system technology companies and knowledge partners determined to expedite the transition towards a net zero future by 2050.

The annual **Global Geothermal Alliance (GGA) Annual Meeting** convened Alliance member governments and partner institutions to explore challenges and prospects in the sector, share knowledge and experiences and provide feedback and guidance on the priority areas of focus for the Alliance to better support faster deployment of geothermal power and heat globally. During the Meeting, members approved the following the Steering Group for 2024/2025; the need for a new Vision and Mission for the Coalition to be beyond SDG and incorporate elements such as community involvement, UAE Consensus, and a 100% renewable energy system by 2050; the amalgamation of the six existing Working Groups into three, to avoid fragmentation of efforts, their co-chair and the Work Programme for each Group for 2024.

The **Alliance for Industry Decarbonization (AFID)**[66] **event** during the Assembly served to present a set of actions and joint initiatives for short and long-term plans as well as solicit feedback on the Alliance's ambitions and programme. Furthermore, on April 18, AFID organized **The Industry Perspective: The Global Decarbonization of Industries** event at the IRENA Pavilion during the World Future Energy Summit. The event provided an in-depth look at global efforts to decarbonize industrial value chains and accelerate net-zero ambitions as well as a platform for open dialogue, sharing valuable lessons learned and addressing common challenges. In the margins of IRENA's 27 Council, AFID participated in the session on **Industry-Driven Partnerships for Accelerated Energy Transition** held on 14 June. The session facilitated exchange among

[64] More information available here.
[65] More information available here.
[66] More information available here.

the IRENA Members and private sector on how the net zero and decarbonization goals set at the national level could be practically supported by the industry for an accelerated energy transition.

Finally, IRENA, in cooperation with the Clean Energy Ministerial (CEM) organised a meeting on **Progress & options for wider collaboration** to discuss the ongoing partnership with IRENA and CEM initiatives, highlighting progress and exploring cooperation opportunities. It also sought insights on enhancing international collaboration, integrating IRENA's contributions into CEM workstreams, finding common ground for greater impact, and fostering collaboration to benefit Global South countries.

IRENA has been actively engaged with G20 Presidencies in advancing the global energy transition. As requested by Brazil as G20 Presidency 2024, IRENA has provided valuable insights, technical advice and inputs to the Energy Transition Working Group (ETWG) on the priority areas that the Presidency has set in the agenda for discussions throughout G20 in 2024. In this regard, IRENA has been working with Brazil on a joint report to facilitate the discussion around delivering a just and inclusive energy transition for emerging markets and developing economies among G20 countries and other relevant stakeholders.

The 28th meeting of **IRENA's Council**[67] was held on 24-25 October. As it is established practice by now, IRENA organised programmatic discussions examining key issues during the meeting. On the first day of the Council, an event focused ***on Accelerating renewable demand in industries and transport to achieve the COP28 Tripling RE pledge.*** On the second day, Members had the opportunity to participate in discussions on the ***Mobilisation of Finance Towards Renewables - Competitive Advantage of ETAF Business*** **Model** as well as on ***Steering the Energy Transformation of Small Island Economies through Partnerships and Innovative, Indigenous Solutions.*** In addition, IRENA held a breakfast event on ***Creating Global Partnership for Weather, Water and Climate Services for a Clean Energy Transition*** in cooperation with the National Center of Meteorology, UAE (NCM) and the World Meteorological Organization (WMO).

[67] More information available here.

Efforts at the regional level

Under the umbrella of the Accelerated Partnership for Renewables in Africa (APRA),[68] IRENA facilitated the **4th APRA country consultation**[69] in Harare, Zimbabwe on 24-26 January. Coordinated by the Ministry of Energy and Power Development of Zimbabwe, the consultation served to identify the country's national priorities and energy transition ecosystem. It also provided a platform for stakeholders to engage in discussions not only on renewables-based energy transition but also on broader cross-cutting issues such as economic growth and industrial development, job creation, improving lives and livelihoods, and other development ambitions. The meeting was attended by H.E. Dr Jenfan Muswere, Minister of Ministry of Energy and Power Development as well as over 100 local and international participants from a broad range of stakeholder institutions.

Along the same lines, the **5th APRA country consultation**[70] was organised by the Ministry of Infrastructure of Rwanda, in partnership with IRENA, on 15 February in Kigali, Rwanda. At the consultation, participants had the opportunity to elaborate on the country's national priorities across economic growth and industrial development, job creation, improving lives and livelihoods and other development ambitions. The results derived from the workshop were utilised in the development of the national workplan intervention areas relevant to accelerate the clean energy transition.

Together with the Ministry of Water and Energy, IRENA organised the **6th APRA country consultation**[71] in Ethiopia on 3 June. Discussions focused on Ethiopia's national priorities across economic growth and industrial development, job creation, improving lives and livelihoods and other development ambitions. The results derived from the workshop were utilized in the development of the national workplan intervention areas relevant to accelerate the clean energy transition.

[68] Founded at the African Climate Summit in September 2023 by Kenya, Ethiopia, Namibia, Rwanda, Sierra Leone and Zimbabwe, with support from Denmark, Germany, the UAE and IRENA, the Partnership aims to accelerate the energy transition in respective countries.
[69] More information available here.
[70] More information available here.
[71] More information available here.

The **7th APRA country consultation**[72] was convened on 15-17 July, in collaboration with the Ministry of Energy of Ghana, supported by a series of bilateral consultations with government entities and partners to draw up a detailed planning and coordination framework for the development and implementation under the umbrella of this partnership.

On 14-15 March, the **Pacific Small Islands Developing States Decarbonisation Forum**[73] was hosted by Japan, IRENA through the SIDS Lighthouses Initiative and the Green Climate Fund. The Forum included a series of workshops dedicated to strengthening renewable energy deployment in SIDS, strengthening local and regional capacity to access climate finance and sharing best practices, lessons learned and innovative energy transition solutions. Expanding on these efforts, this virtual forum shone a light on climate actions in small islands, showcasing various tailored solutions and technology options to address the distinctive challenges and opportunities of SIDS.

Since its inception in 2014, IRENA's SIDS Lighthouse Initiative (LHI) has been promoting the deployment of renewables to transform energy systems in island countries. As the Initiative progresses, the need to measure the impact of its efforts has emerged. In the context of developing a set of indicators to track progress at national, regional, and global levels, the first **Caribbean region consultation workshop**[74] was convened on 26 February-6 March in Kingston, Jamaica. The workshop brought together representatives from the Governments of Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Curacao, Dominican Republic, Grenada, Jamaica, Montserrat, Saint Lucia, Saint Kitts and Nevis, Turks and Caicos, Trinidad and Tobago, regional organisations and relevant partners such as CCREEE, CCCCC, CDB, the World Bank, IDB, Green Solutions International SKN, Clean Energy Regulatory Reform Advisory and NDC Partnership. The meeting presented draft progress indicators and impact measures, and sought feedback on relevance, appropriateness and potential improvements.

The inaugural regional consultation workshop in the **Atlantic, Indian Ocean and South China Sea (AIS) region**[75], held on 11-13 March in Victoria, Seychelles, brought together government ministries representatives from Cabo Verde, Comoros, Sao Tome and Principe, Seychelles, Mauritius and the Maldives, the public sector,

[72] More information available here.
[73] More information available here.
[74] More information available here.
[75] More information available here.

development partners including the Common Wealth's Climate Finance Access Hub and ECREEE, financial institutions, and other relevant stakeholders involved in energy transition and monitoring progress within international frameworks. The structure and methodology of the consultation emphasised a participatory approach, leveraging mechanisms of discovery to encourage engagement and ownership among stakeholders.

Drawing from the inputs received during the above two consultations as well as during the session with SIDS LHI partners held in July, IRENA developed a comprehensive set of progress indicators and impact measures, to support the monitoring and evaluation. Through these consultations, the indicators were tailored to address specific SIDS needs and challenges, resulting in a finalized set of 41 indicators. To assess and demonstrate the utility of these indicators, case studies were conducted for Antigua and Barbuda, Seychelles, and Tonga (one SIDS per region) in October. These studies sought to highlight gaps in data collection, identify support needs, and provide valuable insights to guide the full rollout of the progress indicators and impact measures, scheduled for 2025.

Collaborative Frameworks

IRENA's **Collaborative Frameworks**[76] (Table 7) reflect the Agency's commitment to enhancing Member engagement and ownership of the programmatic output, while enabling peer-to-peer collaboration and exchange of national experiences, challenges and respective solutions.

Table 7: List of Collaborative Frameworks and their respective Co-facilitators

Collaborative Framework on Critical Materials for the Energy Transition	 
Collaborative Framework on Enhancing Dialogue on High Shares of Renewables in Energy Systems	 
Collaborative Framework on the Geopolitics of Energy Transformation	 
Collaborative Framework on Green Hydrogen	 
Collaborative Framework on Hydropower	 
Collaborative Framework on Just and Inclusive Energy Transition	 
Collaborative Framework on Ocean Energy/Offshore Renewables	 
Collaborative Framework on Project Facilitation to Support on-the-ground Energy Transition	 

[76] More information available here.

The **Collaborative Framework on Critical Materials for the Energy Transition** met for the third time on 4 April[77] to explore the potential for innovation to efficiently address and alleviate potential shortages in the supply of critical materials. Industry, academia and public sector experts focused their presentations on diverse energy transition technologies geared towards decreasing the demand for critical materials through innovations. The Framework convened its fourth meeting on 15 October[78] to provide a platform to Members for sharing experiences on innovation and data governance, while addressing the complexity of securing the supply of critical materials.

The **Collaborative Framework on Enhancing Dialogue on High Shares of Renewables in Energy Systems** organised a meeting on 14 May. The meeting will provide an opportunity to share experiences and discuss how the six workstreams of the Framework could support the realisation of the global pledge of tripling global renewable energy capacity by 2030, with key perspectives of developing enabling infrastructure, policy and regulation, skills and institutional capacity, mobilising finance and international collaboration. The Framework met again on 17 October[79] to explore key action areas needed to advance modernising and expanding physical energy infrastructure, focusing on planning, incentives, permitting procedures, and mobilising public and private finance.

The third flagship publication under the umbrella of the **Collaborative Framework on the Geopolitics of Energy Transformation** on the ***Geopolitics of the energy transition: Energy security*** was released at a dedicated Ministerial Roundtable during the 14th IRENA Assembly (see section above).

On 22 March[80], the ninth meeting of the **Collaborative Framework on Green Hydrogen (CFGH**) focussed on green hydrogen derivatives. The meeting explored various aspects of derivatives trade, such as the certification of hydrogen derivatives and specific regulations addressing them. The Framework organised its tenth meeting on 21 October[81] to address crucial but sometimes overlooked aspects of the sector's development such as sustainable carbon as an important feedstock for producing green hydrogen derivatives. The session drew upon insights from IRENA's report on Shaping Sustainable International Hydrogen Value Chains, with a specific focus on the derivative value chains.

The **Collaborative Framework on Hydropower** convened its eighth meeting on 14 August, focusing on sustainable and resilient hydropower development. The meeting provided insights on the vital role of sustainable hydropower projects in realising the energy transition, by showcasing tools and success stories that integrate sustainability into different types of hydropower projects. It offered also an opportunity to explore ways to enhance or maintain hydropower's contribution to the energy system, in terms of adequacy and flexibility, while senvironmental impacts.

The **Collaborative Framework on Just and Inclusive Energy Transition** is continuing to enable peer-to-peer dialogue and multistakeholder action on approaches to develop policies and mobilise resources that help pave the way for the equity and justice elements of the energy transition. Building on the work to date on jobs, youth and gender, skills and education, supply chain value, and citizen and community engagement, among others, the framework remains a relevant platform for IRENA Members to share their insights under the theme. The Framework held a meeting on 7 October to offer Members the opportunity to share experiences in fostering just energy transitions and set future priorities. Sierra Leone and Spain were also appointed as the new co-facilitators.

[77] More information available here.
[78] More information available here.
[79] More information available here.
[80] More information available here.
[81] More information available here.

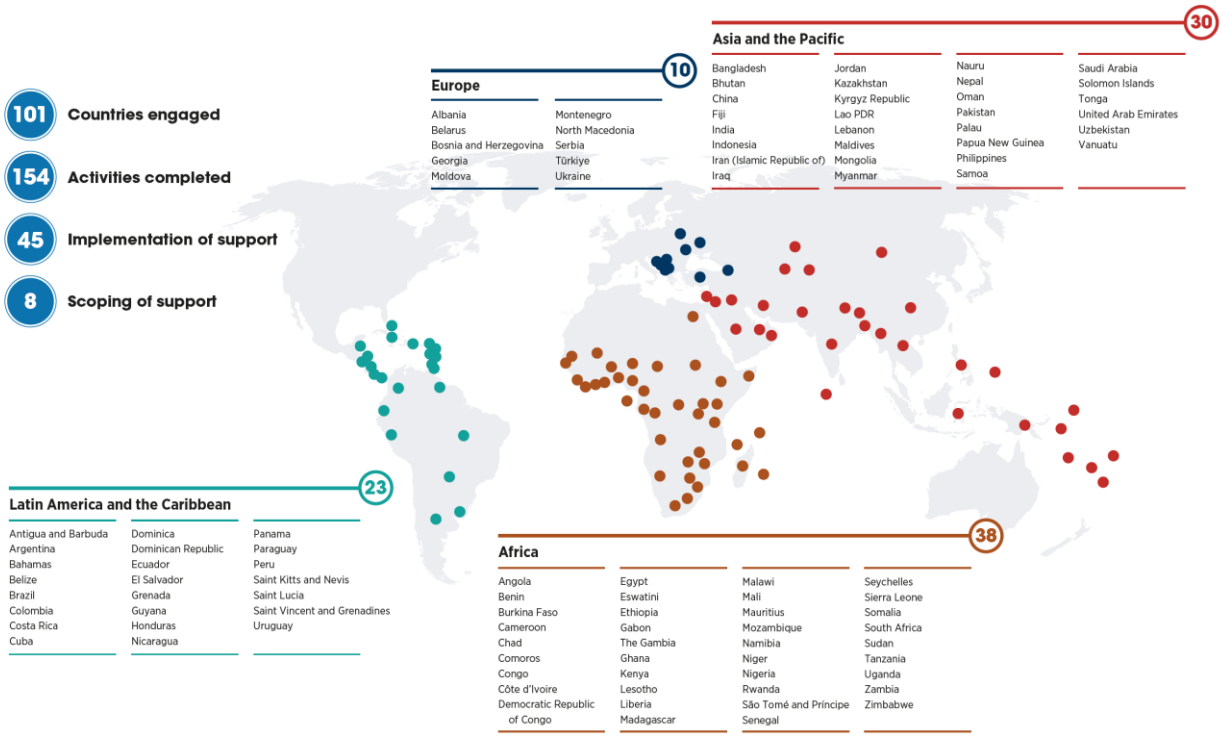
On 26 March, the eighth meeting of the **Collaborative Framework on Ocean Energy/Offshore Renewables** took place. Insights and forecasts on supply chain stress and bottlenecks in the offshore wind sector were examined. Additionally, discussions elaborated on how ports/harbours help facilitate the acceleration of offshore wind deployment, with a focus on policies and best practices in serving as potential energy hubs. Participants also discussed the requirements for optimal grid infrastructure planning and harmonisation to match the anticipated growth in offshore wind capacity. The Framework met for the ninth time on 8 October to elaborate on targeted solutions for different market contexts to offset offshore wind supply chain issues and alleviate supply chain bottlenecks, through policies and measures.

The **Collaborative Framework on Project Facilitation to Support on-the-ground Energy Transition** met on 12 June, coinciding with the 27th meeting of the IRENA Council. The meeting served to enhance the collaboration between IRENA and government entities implementing renewable energy projects domestically and to raise awareness on the Agency's platforms facilitating project financing.

Targeted climate action

IRENA's Members are increasingly reaching out to the Agency with requests to receive targeted support for climate action to enhance their Nationally Determined Contributions (NDCs) and support implementation. In response to this, IRENA is currently engaging and supporting 101 countries with NDC enhancement and implementation across all continents. This is equivalent to 5.9 billion people and covers total energy-related greenhouse gas emissions of 31 818 million tonnes of carbon dioxide equivalent (MtCO2 eq). Currently, IRENA's NDC enhancement and implementation support includes 207 activities to support the needs of IRENA Members, who are the Parties to the 2015 Paris Agreement, in enhancing and implementing their energy transition plans while reflecting these climate action commitments in NDC submissions (Figure 17). IRENA also contributes to long-term strategies through work packages focused on the assessment of renewables, technology and innovation, and the analysis of policies, planning and finance.

Figure 17 : IRENA's climate action engagement



2025 constitutes a milestone in the implementation of the Paris Agreement. Countries will need to submit their third round of NDCs, demonstrating their raised ambitions and strategies to achieve the global tripling renewables target as reflected in their national climate targets. To get an overview of the upcoming NDC submissions and specifically their energy sector component., IRENA undertook a survey of 51 Members in 2023. Responses were received from 12 sub-Saharan African, nine Asian, seven Middle Eastern and North African, seven Latin American and three South East European countries, and 13 SIDS. The results of the survey are included in the **Climate action and the energy transition: IRENA Member survey on Nationally Determined Contribution**[82] report, highlighting challenges, priorities and opportunities for NDC enhancement and implementation, as well as the development of long-term low-emissions development strategies (LT-LEDS) as identified by Members.

IRENA has already offered NDC 3.0 Recommendation Notes to Indonesia and the Philippines to consider in their NDC updates, building upon the Agency's country-level data and perspectives as well as relevant thematic insights for formulating NDC targets, mitigation options, sustainable development co-benefits and means of implementation (finance, capacity building). Recommendations will be also prepared for Pakistan as well as countries in Latin America and Africa. In addition, NDC-relevant recommendations will be delivered for countries where IRENA has existing activities in the context of the Renewable Readiness Assessments, such as Bangladesh, Chad and Iraq. In the Southeast Europe region, IRENA is supporting Georgia and Moldova, among others, to improve the alignment of their NDCs with the National Energy and Climate Plans (NECPs). IRENA is also providing technical assistance in NDC Partnership member countries, such as El Salvador and Tanzania, with more work for other countries in the pipeline. In addition, IRENA is working on scoping NDC support for the countries that responded to the invitation from the IRENA Director General. IRENA is also providing technical reviews of NDCs and relevant national documents, such as thematic NDC relevant plans. One recent example is the technical review of NDC for the United Arab Emirates as well as the review of the Article 6.4 guidance document of Papua New Guinea.

To further facilitate the exchange of best practices and experiences among various country and regional contexts, IRENA developed the **Climate Action Support 2024**[83] report, which examines national and regional efforts to enhance and implement climate targets, and the related support provided by IRENA through its various work packages, including those concerned with NDCs.

[82] Available here.
[83] Available here.

Communications, outreach and engagement

IRENA places great importance on amplifying the impact of its work through its outreach and communication activities.

Since 1 January, IRENA has been referenced in over 40,300 media articles in 56 languages across 173 countries. Global media outreach accompanied the launch of flagship reports, including 'Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030', 'World Energy Transitions Outlook 2024: 1.5°C pathway', 'Renewable energy and jobs: Annual review 2024', 'Renewable Power Generation Costs in 2023', 'Renewable capacity statistics 2024' and 'Geopolitics of the energy transition: Energy security'. Flagship reports have been translated into UN languages. The global outreach was successful in driving significant international coverage. For example, the 'Delivering on the UAE Consensus" report was mentioned 1,055 times in 11 languages across 80 countries in its first week from launch while the "Renewable Energy Statistics 2024" report resulted in 430 articles in 13 languages across 58 countries in its first two weeks.

To enhance the visibility of IRENA's work among its diverse membership, the Agency also expanded its hosted media programme for the 14th IRENA Assembly. The programme allowed international journalists, particularly from developing countries, to attend and cover the IRENA Assembly. This year's programme was the most diverse to date, with 17 journalists representing most regions, including Africa, the Caribbean, Central Asia, Europe, Latin America, the Pacific Islands, and Southeast Asia. Their coverage resulted in 76 varied media pieces, including articles, podcasts, and broadcasts, spanning a wide range of topics.

The number of visitors to the IRENA website reached 2 million between 1 January and 5 December, marking a significant increase of 33%, compared to the same period last year. In total, www.irena.org generated over 5.9 million pageviews, 18% more than in the same period last year. Continuity of innovative formats such as interactive visual stories, and the introduction of new multimedia formats such as motion graphics – a mix of video and animations - has encouraged user interaction and helped establish the website as a reliable hub of knowledge on the energy transition.

The peak days this year were marked by major events, such as the 14th session of the IRENA Assembly, IRENA Youth engagement events and campaigns, as well as flagship publication launches, such as for "Delivering on the UAE Consensus" and "Renewable power generation costs in 2023" reports all content related to Youth, including on the Youth Forum and New generation of decision-makers events, accumulated over half a million pageviews, engaging global youth, thus, increasing the reach of IRENA knowledge products, and amplifying impact. Furthermore, the Youth Forum page which hosts the programme application links, has registered over 300,000 visits.

The new interactive versions of IRENA reports are an ongoing success and generate high engagement, with the WETO reports (2022 and 2023) attracting 55,000 views since January. These products substantially increase engagement, adding to the download numbers for these reports. The Annual Report has also been produced in a digital format, accompanied by an interactive infographic, and attracted significant attention. In addition, visual stories - cumulatively viewed more than 30,000 times since January - facilitate overview and enhance access to the reports and key data, strengthening the outreach.

Furthermore, since 1 January, IRENA has produced and promoted 96 videos, which include creative videos and human impact stories, regular webinar and event recordings, recordings of high-level statements for key events such as the first International Day of Clean Energy/IRENA's 15th Anniversary; in-house-produced videos (Lumen5) on critical reports; motion graphics – mix of video and animations on key energy transition topics and Member statements recordings. For example, five long human impact videos, six social media cuts, six motion graphics and 19 Member statements were produced for the #3xRenewables campaign. During

COP29, the Agency published nine daily highlight videos. Additionally, during the 14th IRENA Assembly, the Agency published recordings and select clips from the sessions, amounting to 26 videos on the Agency's YouTube channel.

Between 1 January and 4 December, IRENA published a total of 36 newsroom articles. Five newsroom articles were dedicated to showcasing the five key enablers of the tripling target in the lead-up to the #3xRenewables campaign; four photo stories were published as part of the ongoing #3xRenewables campaign; three human impact stories; four visual data-based stories; and four articles dedicated to the Agency's engagements at COP29. Six IRENA experts' blog posts (Expert Insights) were published apart from the newsroom articles.

In the same period, dedicated mailing campaigns have provided targeted information on IRENA new releases and events to a pool of 145,961 stakeholders, including Member focal points. During the period, IRENA sent a total of 93 mailers, including four dedicated to the 14th Assembly; two dedicated to COP29; 22 press releases; 26 job alerts; 25 invitations and/or calls to support IRENA activities (APRA Investment Forum and #3xRenewables campaign). In March, IRENA launched 'The Renewables Digest', monthly newsletters. Nine monthly newsletters had been sent out by 4 December. The remaining mails included 'special occasion' announcements on IRENA's 15th Anniversary/Clean Energy Day and response to submitted applications of Youth Forum 2024.

The highest open and click rates during this period were generated by the Call to Support for the APRA Investment Forum on social media, sent to key partners in October, reaching 66% and 23.4%, respectively.

Since January, IRENA's social media channels saw significant growth across most platforms. LinkedIn reached 238 418 followers, marking a 15.5% increase, while Instagram showed strong performance with 18 331 followers, a growth of over 17%. X (formerly Twitter) achieved a steady rise of 2.5%. These growth metrics highlight IRENA's evolving engagement strategies and ongoing creative pursuits.

Figure 18: IRENA social media statistics

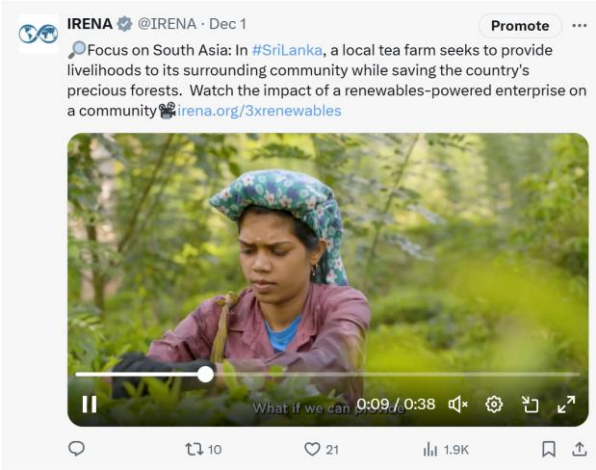
PLATFORM	FOLLOWERS-DEC 2024	GROWTH SINCE JAN 2024
LINKEDIN	238418	+15.45%
X	140254	+2.51%
INSTAGRAM	18331	+17.27%
FACEBOOK	458729	-0.88%

HIGHLIGHTS: #3xRenewables Digital Campaign

IRENA continues to implement innovative content ideas and explore creative styles on social media. On 21 October, IRENA launched a global digital/social media campaign '#3xRenewables for the planet & its people.' Multiple digital assets were produced to support the campaign. For example, human impact videos focused on Honduras, Rwanda, Sri Lanka and Zimbabwe, showcasing the positive impact of renewables in small communities. Every week the campaign followed a dedicated rollout plan, reflecting themes focusing on the benefits of energy transition, including community empowerment, job creation, climate resilience, economic growth, women empowerment, education or spotlighting key enablers of the energy transition.

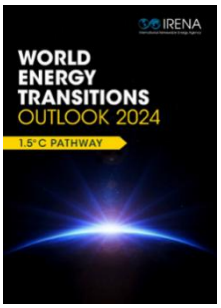
The 3xRenewables campaign helped drive awareness around the global target to triple renewable power capacity by 2030, reflecting the Agency's commitment as the custodian of the target outlined in the UAE Consensus. The communications team delivered 220 content pieces thus far under this campaign, including 1 motion graphic promo campaign video, four human impact videos shot in the above locations, 26 branded cards, 15 GIFs, 5 motion graphics on enablers of the energy transition.

The campaign posts saw almost 320 thousand impressions, resulting in 5,203 interactions (likes and reposts) and 152 comments across social media platforms. Complementing organic efforts, the paid push on the campaign achieved notable success, with 767 200 views and 367 likes on X and 12 500 views on LinkedIn. All videos released under the campaign were watched over 67 thousand times. During this period, LinkedIn gained 3 410 new followers, IRENA's X community expanded by 1700 new followers and 1300 new followers were added to IRENA's Instagram. These metrics underscore the campaign's strong resonance with global audiences and its effectiveness of strategic communication efforts.



In focus:
COP29 in Baku, Azerbaijan

IRENA's COP29 social media coverage showcased high-level sessions, side events, and the Director General's engagements. With 155 content pieces, social media channels captured the essence of the conference, generating 4,350 interactions and reaching a wide audience with 247,000 content impressions across platforms. Daily highlights videos incorporating statements from high-level participants, partners, and colleagues responding to "What does 3xRenewables mean for you?" these videos alone accumulated 21 000 views.



The World Energy Transitions Outlook 2024 was also launched at COP29 garnering substantial attention across social media, positioning it as a key moment in the global energy dialogue. The launch achieved an impressive 4.3 million views on X, accompanied by 99,000 content impressions across all platforms. Organic engagement was strong, with 1 717 interactions, reflecting genuine interest from the audience. Additionally, the Director General's launch video attracted 12 000 views. Report launch was also communicated to the IRENA community via direct messages on X and Instagram.

IRENA drove media coverage during the conference through press-releases, interviews and commentary. Overall, IRENA was cited in more than 1 700 articles mentioning COP29 during the conference's two-week duration. The Director-General gave 29 media interviews at COP29 and participated in the official press conference for the COP29 Energy Initiatives. Four press-releases and six web stories were also published on the IRENA website.


The Guardian
Int
Cop29
Explainer
Almost 120 countries vowed to triple renewables by 2030 – how is it going?
At Cop28 last year they also pledged to double energy efficiency in an effort to cut the world's reliance on fossil fuels
Jillian Ambrose
Wed 20 Nov 2024 11.00

IRENA's **Policy Talks** – an innovative method of engaging and extending the reach of IRENA's analytical work – dedicated its first session on 25 January to presenting the key insights of IRENA's **NDCs and renewable energy targets in 2023: Tripling renewable power by 2030**[84] report. The webinar served to discuss renewable energy targets in countries' NDCs, and their level of ambition in relation to IRENA's 1.5°C scenario and the goal of tripling renewables in the power sector by 2030, highlighting the financial gap and required policies. The next Policy Talk on 15 February focused on **Post-COP28: Translating pledges into action in the GCC.**[85] Drawing on IRENA's report, Renewable energy markets: GCC 2023, the discussion highlighted the significant progress in renewables achieved by countries in the region, the need to increase the share of renewables in total installed generation capacity and the opportunities for GCC countries to advance the energy transition. The next Policy Talk focused on **Water for Hydrogen Production**,[86] presenting the key findings of the report of the same title and underscoring the importance of integrating water sustainability into energy planning. **Green hydrogen for sustainable industrial development: A policy toolkit for developing countries**[87] was the topic of the Policy Talk in March. The webinar served to share insights into the potential of green hydrogen in advancing sustainable development and just transition through policy coordination.

[84] More information available here.
[85] More information available here.
[86] More information available here; report available here.
[87] More information available here; report available here.

The fortnightly **IRENA Insights**[88] programme of short, focused **webinars** showcases key insights from teams across the Agency continue to be held apace. On 6 February, IRENA held a webinar on the insights from the **Offshore Wind Energy Patent Insights** on innovation trends in the offshore wind supply chain, jointly prepared by the European Patent Office and IRENA, assessing patent statistics to reveal technological trends in the offshore wind industry. At the 20 February webinar, IRENA discussed the findings of the **International trade and green hydrogen** report, highlighting the potential of international trade in balancing supply and demand for green hydrogen and the role of trade policies in fostering the development of green hydrogen supply chains, acknowledging the significance of global collaboration. The focus of the webinar on 18 March was the **Scenarios for the Energy Transition: Experiences and good practices in Africa**[89] report that presented key findings and recommendations broadly relevant to African countries and stakeholders, attempting to improve their planning processes across the world. The webinar on 2 July delved into the ***IRENA National Energy Transition Planning Dashboard*** a global repository of official energy planning documents and modelling tools developed and/or used by government institutions for official planning purposes from 73 countries. On 16 July, IRENA held a webinar presenting findings from the ***Decarbonising Hard-to-Abate Sectors: A Pivotal Role for the G7*** report. The session explored the sectors' decarbonisation status and trends, addressing cross-cutting challenges, and presenting recommendations for G7 countries to overcome them. The focus of the 23 July webinar was on ***The energy transition in Africa: Opportunities for international collaboration with a focus on the G7***. This webinar presented findings from the namesake report highlighting the areas for collaboration between African nations and G7 countries to drive the energy transition. The webinar on 1 October served to present the findings of the ***Renewable Power Generation Costs in 2023*** report**.** On 9 December, a webinar on ***Green Hydrogen Auctions: A Guide to Design*** was convened, focusing on supply-side auctions and detailing the design elements to consider.

[88] More information available here.
[89] Report available here.

Monitoring and Evaluation Framework

Background

Three times a year, the IRENA Secretariat reports on the implementation of its Work Programme and Budget, submitting progress and annual reports to the IRENA Council and Assembly. These reports provide information on achieved outputs, updates on the Agency's institutional and strategic activities, and an overview of the Agency's budget.

An external evaluation of the agency's Medium-term Strategy 2018-2022 highlighted the existence of relatively well-developed output and activity-focused monitoring systems within the Secretariat's teams. However, monitoring at the outcome or impact level is limited, and the Agency lacks a shared results or monitoring framework that all teams can contribute to. Moreover, there is currently a set of strategically defined baselines, targets and timelines to measure the Agency's progress towards achieving its goals.

As a first step, IRENA developed its first Theory of Change, included in the Medium-term Strategy 2023-2027 adopted in January 2023. Since January 2023, the Secretariat has been working to strengthen its institutional approaches, tools, and mechanisms to improve the systemic tracking and delivery of its work.

Following the Theory of Change, IRENA developed a results-based framework (RBF) to track and better demonstrate the impact of the Agency's work and its Work Programmes. The Results-based Framework was adopted at the 14th session of the IRENA Assembly in January 2024. This programmatic cycle will be the first step in a gradual shift to the RBF that will eventually guide the delivery and evaluation of the Secretariat's work.

Process to develop a Monitoring and Evaluation system

IRENA is in the process of finalising the development of a comprehensive monitoring and evaluation (M&E) framework that enables the tracking and reporting of discernible and traceable impact of IRENA's activities. It has been an extensive process and to ensure optimal delivery as well as transparency and ownership, a whole-of-Agency approach was adopted. All divisions were actively involved in identifying baseline data as well as defining targets for 2024 and 2025. In addition, teams were engaged in in-depth discussions and provided substantive input to the setting of definitions and breakdown lists to ensure a common understanding and consistency of work across the Agency. In this respect, it is planned that the Matrix of Implementation of the Work Programme and Budget in the Annual report to be submitted in the spring for the consideration of the 29th meeting of the IRENA Council will be replaced with the new M&E system.

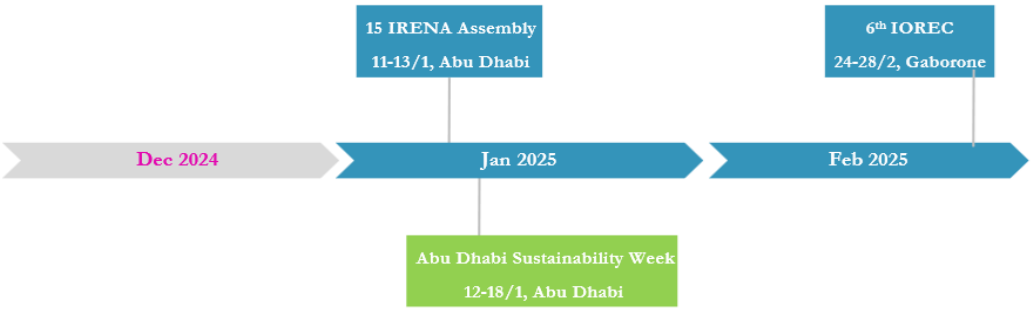
The 2024-2025 biennium will serve to fully transition the Secretariat into the new M&E system. With regards to the development of the Work Programme and Budget for the next biennium, the process of which will commence early next year, the Secretariat aims to develop the key activities by first mapping them against the Intermediate Outcomes of the Results-based Framework to ensure alignment.

Monitoring and evaluating the impact of the Agency's work will be an ongoing process. As the Agency begins to implement the new M&E system, it is expected that further adjustments might need to be made in the process of collecting and analysing data etc. to further refine and improve the system, thus ensuring IRENA's impact is better reflected.

Looking ahead

This section provides a snapshot of some of IRENA's upcoming key events as well as selected upcoming events and publications.

Upcoming key events



Selected upcoming IRENA events and publications

Table 8: Tentative list of IRENA Events, 2025

Date	Event name
12-13-Jan	15 IRENA Assembly
9-13-Jan	IRENA Youth Forum: The New Generation of Decision Makers
24-28-Feb	IOREC 2024: 6th International Off-Grid Renewable Energy Conference and Exhibition

Table 9: Selected upcoming publications, 2025

Quarter	Provisional report title
Q1	Socio-economic footprint of the energy transition: Malaysia
Q1	Innovation landscape for growth powered by renewable energy
Q1	Sustainable aviation fuels in Southeast Asia: A regional perspective on bio-based solutions
Q1	Planning and prospects for renewable power: Central Africa
Q1	Renewable capacity statistics 2025
Q2	Hydrogen Trade Outlook for Southeast Asia
Q2	Tracking SDG7: The energy progress report
Q3	Renewable energy statistics 2025
Q3	Renewable energy and jobs in 2025
Q4	Delivering on the UAE Consensus: Tracking progress toward tripling renewable energy capacity and doubling energy efficiency by 2030
Q4	World Energy Transitions Outlook 2025: 1.5°C pathway
Q4	Off-grid renewable energy statistics 2025

Effective functioning of the organisation

To deliver on its mandate, the Agency relies on the contributions and support of its Members, cooperation with a wide range of experts and institutions, and the commitment of its talented staff. This chapter summarises the Secretariat's key institutional and strategic activities to date. The Administration and Management Services (AMS) Division supports efficient implementation of the Work Programme and facilitates effective use of the Agency's resources. The Agency continues to innovate in its processes and practices to remain responsive to the dynamic nature of its programmatic work.

Budget

The Budget Section provides strategic advice to the senior leadership team and programme managers on planning, administration and management of IRENA's financial resources. The support to the Agency also includes the preparation of IRENA's budget, reporting processes, and administration of core and voluntary contributions through budgeting and control services, forecast information and preparation of financial reports for management, governing bodies and donors.

Finance

The Finance Section continues to perform a critical role in the overall functioning of the Agency and is responsible for managing the financial resources and preparation of Annual Financial Statements, ensuring full compliance with IRENA's Rules and Regulation and International Accounting standards.

The Section also manages the day-to-day financial operations, including payment processing, payroll, investments and contributions. In addition, it ensures accuracy, timeliness and compliance in financial transactions. Finance endeavours to continue to seek improvements and increase efficiencies in its processes whilst maintaining internal controls and mitigating potential risks.

Information and Communication Technology (ICT)

ICT continues to serve as a strategic enabler and tool for the Agency in the implementation of its Work Programme by providing state-of-the-art IT services and solutions to IRENA units. ICT is regularly maintaining and consolidating its IT capabilities through initiatives for digital transformation (process automation, paperless, remote work etc.), infrastructure modernisation (in HQ as well as in Bonn and New York Offices, cloud and on premise), operational excellence (IT governance, cost optimisation, proactive maintenance, regular monitoring etc.) and internal capacity building (trainings, technology workshops etc.).

As per the IT strategy, which is closely aligned with the IRENA Medium-term Strategy, ICT is strengthening its role as a:

- Driver of digital transformation towards higher institutional effectiveness and efficiency through the maintenance and enhancement of the Executive dashboard, ERP and other online tools for collaboration and knowledge sharing. In particular, some initiatives related to Artificial Intelligence and a framework for its use in the Agency are ongoing.
- Enabler of the development of value-added business capabilities on renewable energy through the maintenance and enhancement of the IRENA website and web platforms on renewable energy. Continuous enhancements to the IRENA website related to new and major events are implemented.
- Pillar of the organisational resilience and compliance through the implementation of the cybersecurity management framework and the business resilience plan. For example, several enhancements to the network performance and security are implemented.

Human Resources

The work of Human Resources continues to span administrative, operational, and strategic activities. Significant effort has been placed on aligning human resource policies and processes more closely with the Agency's strategic and programmatic objectives, including additional personnel sourcing and building organisational capabilities that are needed to achieve the Agency's operational objectives with the right combination of skills, knowledge, competencies, and expertise, while promoting geographical, cultural, and gender diversity. Human resources practices, rules, and procedures continue to be refined and updated to ensure effective and efficient responsiveness to the emerging and evolving needs and challenges of the Agency while safeguarding its core values and principles. Attracting, developing and retaining highly qualified staff is key to the Agency's success. In this respect, IRENA has stepped up its outreach efforts to attract talent from all over the world, including by tapping into Members' expertise, and through the mechanisms provided by the decision of the Assembly at its second session (A/2/DC/5) such as loan and secondment arrangements.

During the period from 1 January 2024, 37 vacancies (core and project, including Interns and Associate Professionals) were announced and over 15,998 applications were received. Out of 93 core posts, 81 are filled or under recruitment (70 filled and 11 under active recruitment) and 12 are vacant. The 70 staff in core posts are from 43 nationalities out of which 46% women and 54% men. There are also 121 project posts that are currently filled or under recruitment (106 filled and 15 under active recruitment). (Figure 19). Combined core and project posts amount to a total of 176 staff, who come from 77 nationalities (Figure 20 and 21), with 46% women and 54% men.

Figure 19: Staff Status as of 30 November 2024

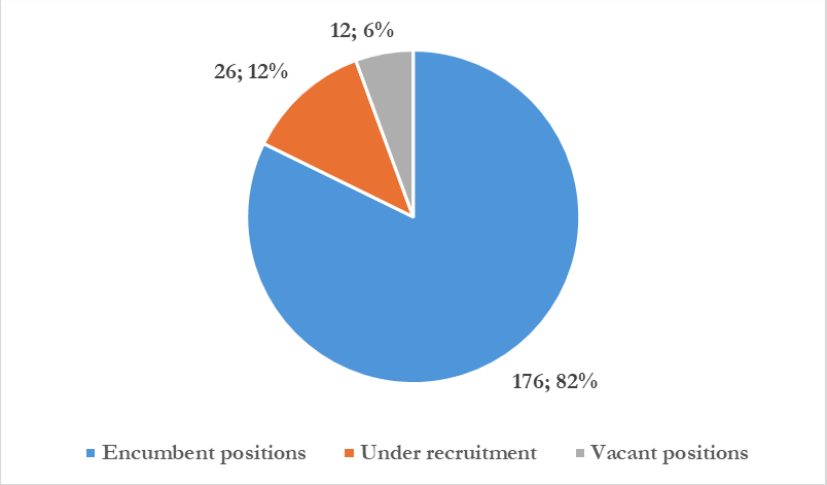
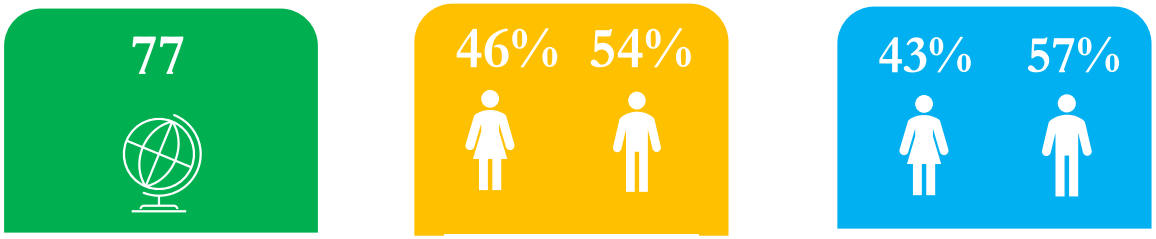


Figure 20: Employee profile statistics



Nationalities at IRENA | **Staff gender balance** | **Senior Team gender balance**

Figure 21: Geographical Distribution (core and project posts), as of 30 November 2024

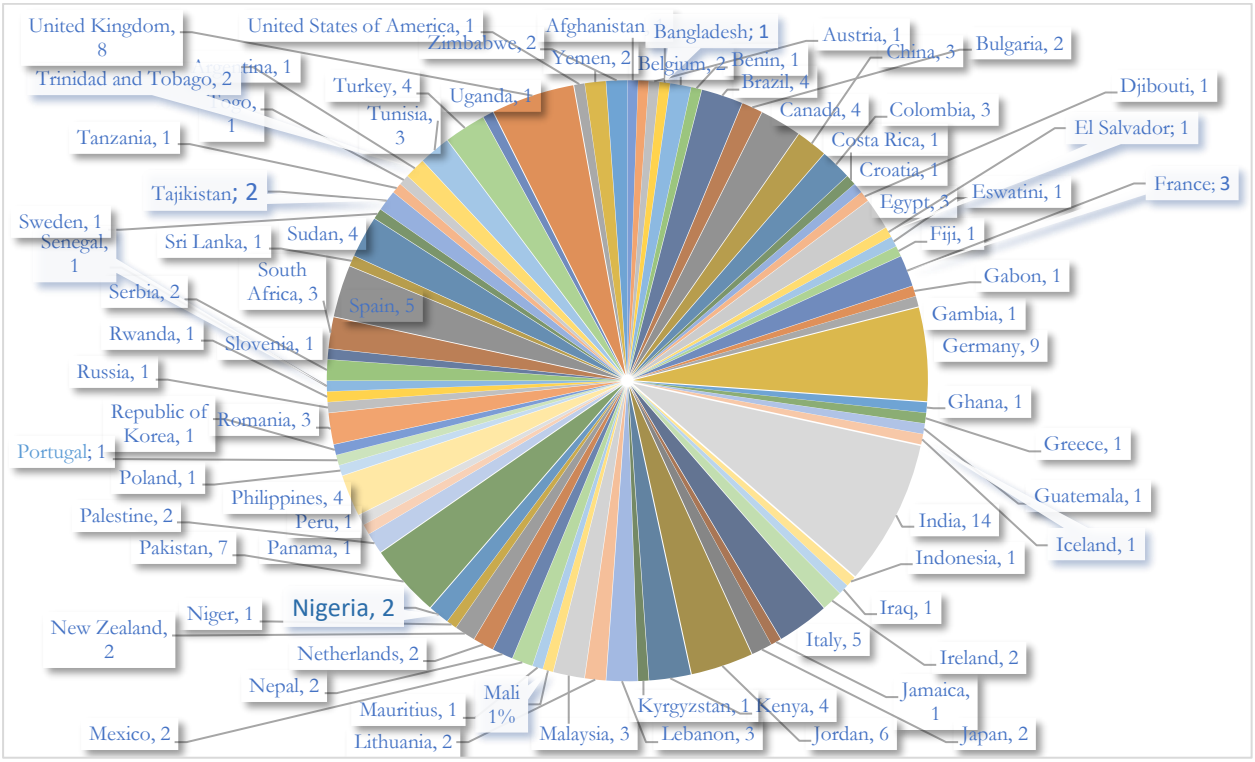


Table 10: Filled/under recruitment: Core and Project posts by level as of 30 November 2024

Level	Filled or Under Recruitment	Total
ASG	**1**	**1**
D-2	**1**	**1**
D-1	**6**	**6**
P-5	**21**	**24**
P-3/4	**75**	**81**
P-2/1	**60**	**60**
Sub-total Professional and above	**164**	**173**
General Services	**38**	**41**
Total	**202**	**214**

Table 11: Loaned personnel as of 30 November 2024

Division	Title	Loaned from
CEP	Programme Officer	United Arab Emirates
ODG	Liaison and Protocol Officer	United Arab Emirates
ODG	Communications Officer	United Arab Emirates
CEP	Loaned Officer - SGCC	China
CEP	Loaned Officer – Partnerships (SNAM)	Italy

Table 12: Seconded Officers (Voluntary Contributions) as of 30 November 2024

Division	Title	Seconded from
CEP	Programme Officer	Republic of Korea
CEP	Programme Officer - Geothermal	Iceland
IITC	(JPO) Associate Programme Officer	Germany
KPFC	(JPO) Associate Programme Officer	Germany

Procurement

The Agency has continued to implement its administration of cost-effective procurement process for goods, services and other related requests. To ensure the transparency, fairness, openness and competitiveness of the procurement process bidding opportunities, the Request for Proposals (RFP) or Invitation to Bid (ITB) are mostly posted on IRENA's website and disseminated to the vendors registered with IRENA's vendors' database.

From January to 29 November, more than 339 procurement contracts and agreements for goods and services have been awarded. Furthermore, in the same period, the number of vendors registered in Procurement Section database has increased within the last three years also to reach almost 913 vendors from various countries worldwide.

General Services and Travel

Travel support and services were provided to staff, delegates and participants in conferences and workshops. From 1 January to 29 November, the Agency facilitated travel of staff and delegates and received 745 travel requests and 267 services. The section continues to provide facility management services for IRENA Headquarters and staff. This is an important function, which contributes to a healthy and productive work environment while delivering continuous day-to-day services for staff. As part of these ongoing services, General Services continues to explore further enhancement measures for Health and Safety to provide an even better work environment for staff.

Implementation progress overview

There are a total of 40 Work Programme activities for the 2024-2025 biennium, spreading across the five strategic objectives or pillars identified in the current Medium-term Strategy 2023-2027: a centre of excellence for knowledge and innovation; a network hub for all stakeholders; a global voice of renewable energy; a source of advice and support for countries and regions; and project facilitation and capital mobilisation (Table 13).

A progress assessment is undertaken based on the average progress needed to deliver the activities in the two-year cycle. Based on the overview of progress today, the implementation of outputs is as envisioned.

Table 13: IRENA's strategic objectives

Centre of Excellence for Energy Transformation	•Provide thought leadership and authoritative knowledge, data and analyses on all aspects of the energy transition and its impacts at global, regional, national and sectoral levels.
International Collaboration and Network Hub	•Galvanise international collaboration and provide an inclusive platform for all stakeholders to foster targeted action, alignment of activities and knowledge sharing for impact on the ground.
Global Voice of Renewables	•Pursue excellence in renewables innovation, development and deployment and promote practical application of knowledge for systemic change.
Support for Regions and Countries	•Assist regional and country-level decision-making and support implementation strategies to reduce global emissions, adapt to climate change, and improve energy access, security and affordability for sustainable development
Facilitating Projects and Mobilising Capital	•Facilitate the development of project pipelines and channel investment toward renewables-based energy systems in developing countries.

Resource overview

This section presents details of the core budget and voluntary contributions applicable to the Work Programme and Budget for 2024-2025.

Biennial budget overview

Table 14: 2024-2025 Biennium Budget utilisation by funding source (in USD Thousands)

Funding Source	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Assessed Contributions (Core Budget)	**44,778**	**32,450**	**72%**
Core Non-Assessed UAE Contribution:			
UAE Support	5,000	2,623	52%
Governing Body Meetings	3,200	2,152	67%
IT Infrastructure Support	920	900	98%
Subtotal	**9,120**	**5,676**	**62%**
Core Non-Assessed Germany Contribution:			
Innovation and Technology Centre	10,890	6,113	56%
Subtotal	**10,890**	**6,113**	**56%**
Total Core Non-Assessed	**20,010**	**11,789**	**59%**
Grand Total	**64,788**	**44,239**	**68%**

In addition to Core Non-assessed contributions, UAE and Germany provide annual in-kind contributions of approximately USD 5.6 million and USD 1.9 million respectively.

Table 15: 2024-2025 Biennium Budget Utilisation by division (in USD Thousands)

Division	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Country Engagement and Partnerships	8,426	5,970	71%
IRENA Innovation and Technology Centre	10,890	6,113	56%
Knowledge, Policy and Finance Centre	10,500	6,085	58%
Project Facilitation and Support	3,421	2,449	72%
Office of the Director-General	18,288	13,143	72%
Administration and Management Services	13,263	10,479	79%
Grand Total	**64,788**	**44,239**	**68%**

Table 16: 2024-2025 Biennium Budget Utilisation, Country Engagement and Partnerships Division (in USD Thousands)

Country Engagement and Partnerships	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**4,822**	**3,821**	**79%**
Total Non-Staff Costs	**3,604**	**2,149**	**60%**
Project & Seconded Personnel, Interns and Consultants	2,187	1,597	73%
Programme and Expert Meetings	556	185	33%
Furniture and Equipment	15	-	0%
General Operating Expenditures	179	113	63%
Travel of Staff	61	19	32%
Contractual Services	606	235	39%
Grand Total	**8,426**	**5,970**	**71%**

Table 17: 2024-2025 Biennium Budget Utilisation, IRENA Innovation and Technology Centre (in USD Thousands)

IRENA Innovation and Technology Centre	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**4,668**	**2,618**	**56%**
Total Non-Staff Costs	**6,222**	**3,495**	**56%**
Project & Seconded Personnel, Interns and Consultants	4,226	2,585	61%
Programme and Expert Meetings	227	101	44%
Travel of Staff	258	128	50%
Contractual Services	1,078	497	46%
General Operating Expenditures	333	184	55%
Furniture and Equipment	100	-	0%
Grand Total	**10,890**	**6,113**	**56%**

Table 18: 2024-2025 Biennium Budget Utilisation, Knowledge, Policy and Finance Centre (in USD Thousands)

Knowledge, Policy and Finance Centre	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**5,285**	**2,633**	**50%**
Total Non-Staff Costs	**5,215**	**3,452**	**66%**
Project & Seconded Personnel, Interns and Consultants	3,949	2,689	68%
Programme and Expert Meetings	88	41	46%
Furniture and Equipment	15	2	15%
Travel of Staff	80	48	60%
Contractual Services	890	547	62%
General Operating Expenditures	193	124	64%
Grand Total	**10,500**	**6,085**	**58%**

Table 19: 2024-2025 Biennium Budget Utilisation, Project Facilitation and Support Division (in USD Thousands)

Project Facilitation and Support	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**2,512**	**2,134**	**85%**
Total Non-Staff Costs	**909**	**315**	**35%**
Project & Seconded Personnel, Interns and Consultants	513	121	24%
Furniture and Equipment	6	-	0%
General Operating Expenditures	72	45	63%
Travel of Staff	102	56	55%
Contractual Services	216	93	43%
Grand Total	**3,421**	**2,449**	**72%**

Table 20: 2024-2025 Biennium Budget Utilisation, Office of the Director-General (in USD Thousands)

Office of the Director-General	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**9,553**	**7,010**	**73%**
Total Non-Staff Costs	**8,735**	**6,133**	**70%**
Project & Seconded Personnel, Interns and Consultants	4,583	3,523	77%
Programme and Expert Meetings	238	58	24%
Travel of Staff	570	493	86%
Contractual Services	2,961	1,878	63%
Furniture and Equipment	5	4	83%
General Operating Expenditures	378	177	47%
Grand Total	**18,288**	**13,143**	**72%**

Table 21: 2024-2025 Biennium Budget Utilisation, Administration and Management Services (in USD Thousands)

Administration and Management Services	2024-2025 Biennium Budget	Utilisation as of 30 Nov 2024	
		Commitment and Expenses	Proportion of 2024-2025 Biennium Budget
Staff costs	**8,824**	**8,150**	**92%**
Total Non-Staff Costs	**4,439**	**2,329**	**52%**
Project & Seconded Personnel, Interns and Consultants	1,869	1,459	78%
Travel of Staff	13	4	31%
Contractual Services	634	81	13%
General Operating Expenditures	1,816	692	38%
Furniture and Equipment	107	93	87%
Grand Total	**13,263**	**10,479**	**79%**

Table 22: Core Non-Assessed Contributions (in USD Thousands)

Core Non-Assessed Contributions		
as of 30 November 2024, in USD		

Budgeted Voluntary Contributions		
	2024	
	Committed	**Received**
Germany		
IRENA Innovation and Technology Centre	5,445,000	5,445,000
United Arab Emirates (UAE)		
UAE Support	2,500,000	2,500,000
Governing Body Meetings	1,600,000	1,600,000
IT Infrastructure Support	460,000	460,000
Subtotal UAE Contributions	**4,560,000**	**4,560,000**

Total Budgeted Voluntary Contributions	**10,005,000**	**10,005,000**

Other Voluntary Contributions		
	2024	
Donor	**Committed**	**Received**
European Union	216,533	86,613
Germany	2,157,213	212,175
Iceland	505,000	505,000
Italy	106,045	106,045
Japan	609,835	609,835
Republic of Korea	377,977	377,977
United Arab Emirates	2,374,174	2,074,174
United Kingdom of Great Britain and Northern Ireland	113,780	-
Total	**6,460,557**	**3,971,819**

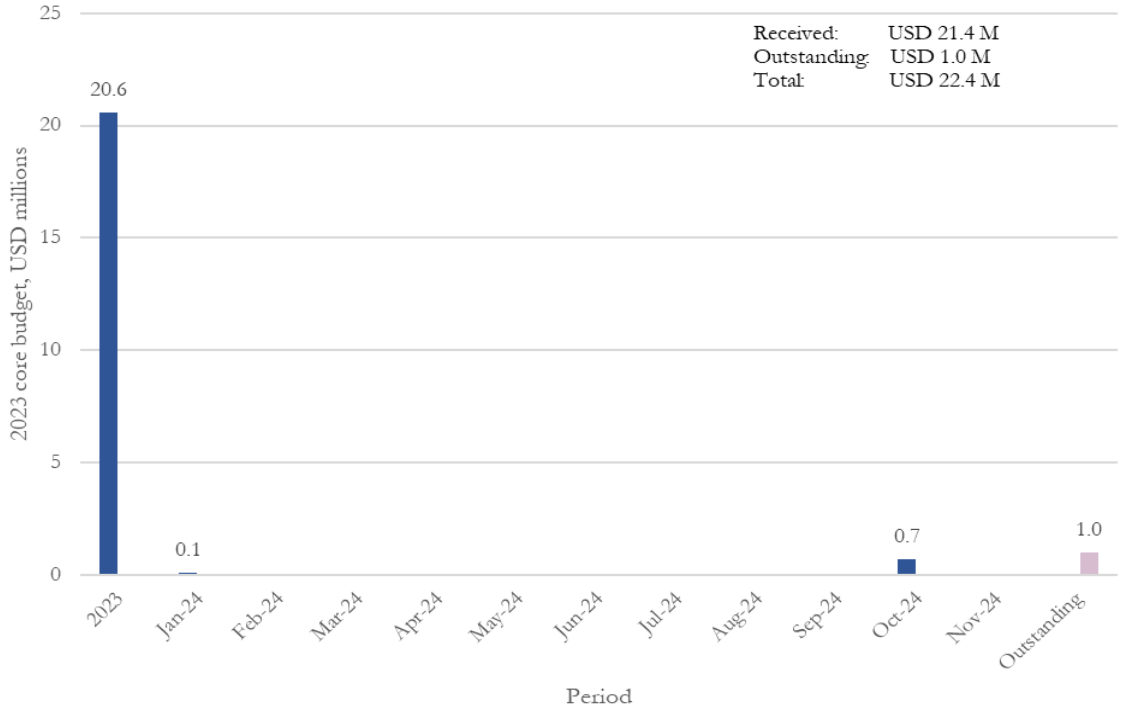
Other Voluntary Contributions - Non-Members		
	2024	
Donor	**Committed**	**Received**
OPEC Fund for International Development	400,000	-
Total	**400,000**	-

Multi-Year Voluntary Contributions			
Donor	**Multi-Year Commitments**	**Received prior to 2024**	**Received during 2024**
Belgium (Government of the Walloon Region)	3,193,656	2,104,331	1,089,325
Denmark	21,936,645	5,224,278	-
European Union	9,229,315	3,294,752	-
Norway	2,856,055	-	-
Kingdom of the Netherlands	800,320	400,160	200,080-
United Arab Emirates	300,000	-	
Total	**38,315,991**	**11,023,521**	**1,289,405**

Multi-Year Voluntary Contributions - Non-Members			
Donor	**Multi-Year Commitments**	**Received prior to 2024**	**Received during 2024**
Deutche Gessellschaft fur Internationale Zussamenarbeit GmbH	399,933	231,982	167,951
Global Energy Alliance for People and Planet	2,544,130	1,204,666	-
Physikalisch-Technische Bundesanstalt	552,049	280,899	271,150
United Nations Development Programme	6,265,000	1,984,714	-
Total	**9,761,111**	**3,702,261**	**439,101**

Fund for Developing Countries Representatives		
	2024	
Donor	**Committed**	**Received**
United Arab Emirates	686,000	686,000
Total	**686,000**	**686,000**

Figure 22: Received and outstanding assessed contributions for 2023 core budget (in USD millions, as of 30 November 2024)



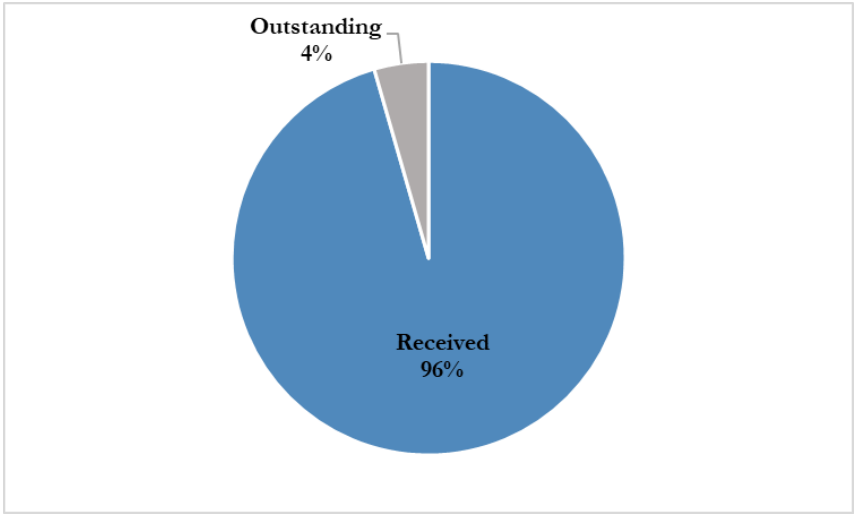
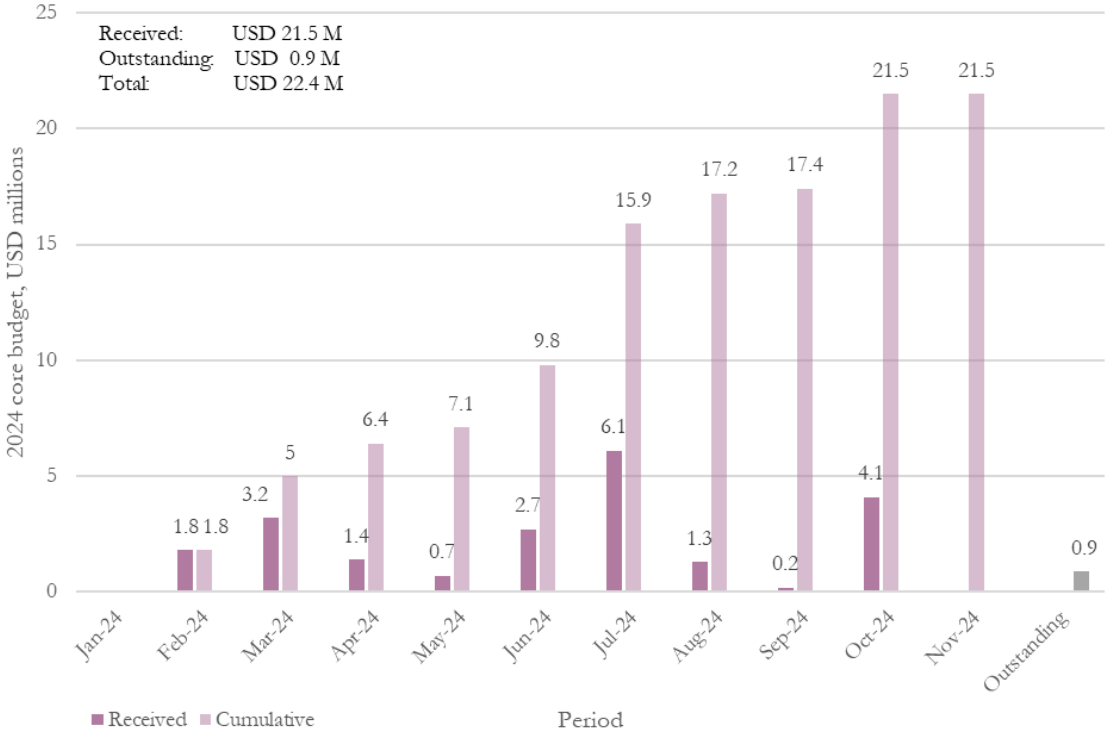


Figure 23: Received and outstanding assessed contributions for 2024 core budget (in USD millions, as of 30 November 2024)



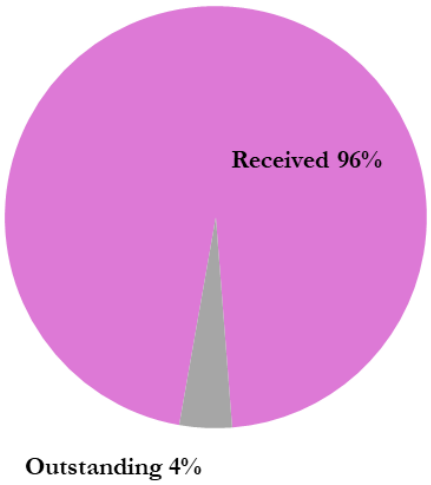


Figure 24: Number of Members with received and outstanding contributions to the 2023 core budget (30 November 2024)

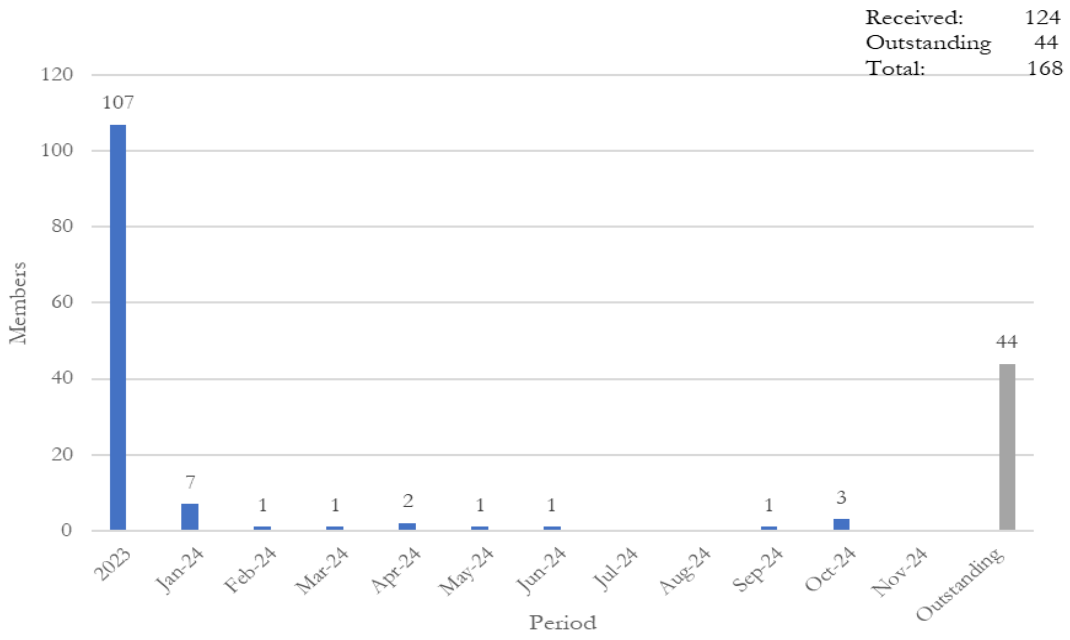
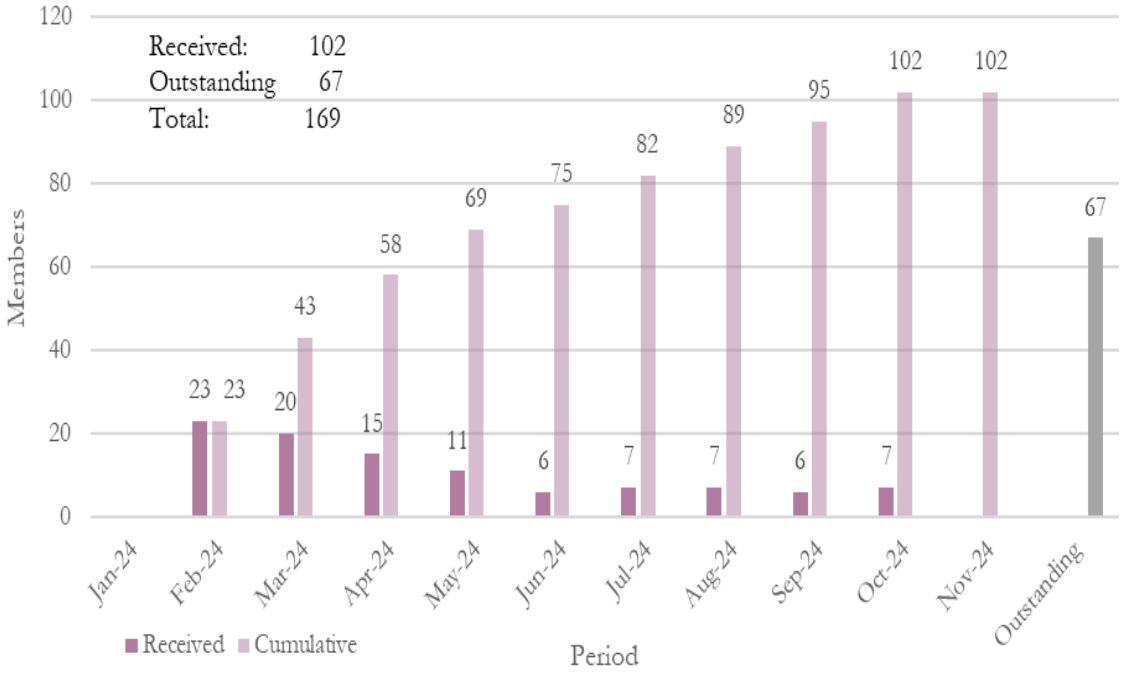


Figure 25: Number of Members with received and outstanding contributions to the 2024 core budget (30 November 2024)



IRENA Donors (2024-2025) (as of 30 November 2024)

	**Denmark** **Ministry of Foreign Affairs**	2023-2027 support
	**European Commission** **DG ENER**	EU Remap: In-depth analysis of renewable energy technology opportunities to support regional cooperation in national energy and climate plans. Innovation to foster the renewable energy transition.
	DG NEAR	Conditions and obstacles for the development and integration of renewable energy sources in the Eastern Partner countries. Mediterranean Renewable Energy and Clean Tech plan.
	DG INTPA	Regional Energy Transition Outlooks in Africa and Latin America and Caribbean.
	**Germany** **Federal Ministry for Economic Affairs and Climate Action**	Various projects
	Physikalisch-Technische Bundesanstalt (PTB)	Quality Infrastructure for Green Hydrogen
	GIZ	Senegal's clean energy transition
	**Iceland**	Support for geothermal work
	**Italy**	Italy G7 Presidency and Youth support
	**Japan** **Ministry of Agriculture, Forestry and Fisheries (MAFF)**	Biomass Strategy for Sustainable Bioenergy Production
	Ministry of Economy, Trade and Industry (METI)	Various Projects

	**Kingdom of the Netherlands** **Ministry of Foreign Affairs**	Geopolitics of the Energy Transition
	**Norway**	2024-2027 support
	**Republic of Korea**	Workshop on 'Tripling renewable power by 2030'
	**Walloonia**	Deployment of renewable energy and decentralised renewable energy with a focus on Francophone Africa (2022-2024).
	**United Arab Emirates**	Alliance for Industry Decarbonisation (AFID) COP29 Technical and advisory services support to UAE UNFCCC submissions NDC 3.0 and BTR development and implementation support for IRENA member countries IRENA Warehouse Utilities on Net Zero Alliance (UNEZA) FDCR
	**United Kingdom of Great Britain and Northern Ireland**	Breakthrough Agenda support
	**Global Energy Alliance for People and Planet**	Climate change and energy poverty
	**OPEC Fund for International Development**	ETAF Project Facilitation and Support Facility support.
	**Open Society Foundations**	Empowering Lives and Livelihoods
	**Rockefeller Brothers Fund**	Acceleration Partnership for Renewables in Africa

As directed by its Membership, IRENA continues to diversify its resource base by seeking extra-budgetary support. In 2024, IRENA received a total of USD 6,386,325 through voluntary contributions.

Work Programme 2024-2025 – Implementation Matrix

This section presents a full matrix detailing the progress of Work Programme activities by output and by key activity, resourced by both core and voluntary contributions.

The asterisk (*) indicates that the delivery of the programmatic output is financially supported by one or more voluntary contributions. If there is not an asterisk, then the delivery of the programmatic activity is exclusively covered by the core non-assessed and/or core assessed contributions.

At the twenty-third meeting of the Council, Members requested more nuanced information in the implementation matrix section in the form of a traffic light system. In response, the IRENA Secretariat is introducing a speedometer in the 'Status' column with four traffic lights (and an arrow that would resolve possible issues, if printed black and white) indicating:

- Red for an activity stalled long-term or will be abandoned,
- Orange for when progress is lagging, but we are confident we will deliver within the programmatic cycle,
- Green for when it is on track or has not started yet and
- Blue for when it is completed.

The legend below outlines some of the risk factors/reasons why progress for an activity might be lagging or stalling, but the list is not exhaustive.

Risk factors	
External risks	• Project affected by difficulties in engagement/commitment of stakeholders.
	• Commitments affected due to changes of government and/or political priorities.
	• Lack of access to data.
	• Limited capacity of local partners impedes progress and results.
	• Catastrophic events (e.g. natural hazards and disasters, pandemics etc.) affect operations and schedules.
Internal risks	• Key IRENA staff working on the activity has left.
	• Shifting priorities in the course of the year.

I. Centre of Excellence for Energy Transformation

Core assessed and core non-assessed resources (in USD thousands): 8,012. Key activities supported by additional voluntary contributions are footnoted.

Objective: Provide thought leadership and authoritative knowledge, data and analyses on all aspects of the energy transition and its impacts at global, regional, national and sectoral levels.

Key activities	Status	Description
World Energy Transition Outlook (WETO) (2024[90] and 2025 editions)		▪ World Energy Transition Outlook 2024 brief on "Tracking COP28 Outcomes: Tripling Renewable Power Capacity by 2030" launched at Berlin Energy Transition Dialogue Conference 2024 (March 2024) [Click here].
		▪ "World Energy Transitions Outlook 2024" report (November 2024) [Click here].
		▪ World Energy Transition Outlook 2025 brief.
		▪ "World Energy Transitions Outlook 2025" report.
Regional Energy Transition Outlooks* (Africa (Target 5); EU (Target 1) and South America (Target 1)		▪ "Regional Energy Transition Outlooks for South America" report.[91]
		▪ "Regional Energy Transition Outlooks for five regions in Africa" report.[92]
		▪ "Regional Energy Transition Outlooks for EU" report.[93]
		▪ "Eastern Partnership (EaP) study" in collaboration with the EU Commission.[94]
		▪ "Sustainable Bioenergy Pathways in Latin America: Promoting Bioenergy Investment and Sustainability" report (January 2024) [Click here].
		▪ "Sustainable Bioenergy Potential in Caribbean Small Island Developing States" report (February 2024) [Click here].[95]
Renewable Energy Capacity and Generation (2024 and 2025 editions)		▪ "Renewable capacity statistics 2024" report (March 2024) [Click here].
		▪ "Renewable energy statistics 2024" report (July 2024) [Click here].
		▪ "Off-grid renewable energy statistics 2024" report.
		▪ "Renewable capacity statistics 2025" report.
		▪ "Renewable energy statistics 2025" report.
		▪ "Off-grid renewable energy statistics 2025" report.

[90] Supported by the Government of Germany.
[91] Supported by the European Commission.
[92] Supported by the European Commission.
[93] Supported by the European Commission.
[94] Supported by the European Commission.
[95] Supported by the Government of Denmark.

		▪ "Energy taxonomy: Classifications for the energy transition" report (March 2024) [Click here].
Renewable Energy Power Generation Cost (2024 and 2025 editions)		▪ "Renewable Power Generation Costs in 2023" report (September 2024) [Click here].
		▪ IRENA Renewable Cost Database was updated, including RE projects commissioned in 2023.
		▪ "Renewable Power Generation Costs in 2024" report.
Renewable Energy Jobs (2024 and 2025 editions)		▪ "Renewable Energy Jobs 2024" report in collaboration with the International Labour Organization (October 2024) [Click here].
Geopolitics of the Energy Transition (2024 and 2025 editions)*		▪ "Geopolitics of Energy Transformation: Energy security" report (April 2024) [Click here].[96]
Global Landscape of Renewable Energy Finance		▪ "Global Landscape of Renewable Energy Finance 2025" report.
		▪ Workshop on the *Sustainable Risk Mitigation Initiative* (May 2024).
		▪ Analysis of investment trends at the global level.
Innovation Landscape Report and Innovation Week		▪ "Innovation Landscape for Sustainable Development Powered by renewables" report.
		▪ Innovation Week 2025: Innovative solutions for renewables-based sustainable growth.
Tracking SDG7: The Energy Progress Report (2024 and 2025 editions)		▪ "Tracking SDG 7: Energy Progress" report brochure in collaboration with the other SDG 7 custodian agencies (World Bank, IEA, UNSD, WHO) (April 2024) [Click here].
		▪ Participation and presentation of progress on renewable energy and finance in support of SDG7 • During the United Nations consultation meetings in the lead up to the Global Stocktake on SDG7 (April 2024), and • At COP29 during which IRENA took over the Chair position among SDG7 custodian agencies for "Tracking SDG 7: The Energy Progress 2025"[97] report.
		▪ "Tracking SDG 7: The Energy Progress 2024"[98] report in collaboration with the other SDG 7 custodian agencies (World Bank, IEA, UNSD, WHO) (June 2024) [Click here][99] launched at the UN HLPF in July.
		▪ "Tracking SDG 7: The Energy Progress 2025"[100] report in collaboration with the other SDG 7 custodian agencies (World Bank, IEA, UNSD, WHO).

[96] Supported by the Government of Germany, the Government of Netherlands and the Government of Norway.
[97] Supported by IBRD.
[98] Supported by IBRD.
[99] Supported partially by the World Bank/IBRD.
[100] Supported by IBRD.

II. International Collaboration and Network Hub

Core assessed and core non-assessed resources (in USD thousands): 9,963. Key activities supported by additional voluntary contributions are footnoted.

Objective: Galvanise international collaboration and provide an inclusive platform for all stakeholders to foster targeted action, alignment of activities and knowledge sharing for impact on the ground.

Key activities	Status	Description
Governing Body Meetings and other Member engagement		▪ Summary Report of the 26th Council meeting [Click here].
		▪ Organisation and delivery of Part I of the Fourteenth session of the IRENA Assembly for peer-to-peer engagement among Members and Stakeholders (15 January 2024) [Click here].
		▪ Organisation and delivery of Part II of the Fourteenth session of the IRENA Assembly for peer-to-peer engagement among Members and Stakeholders (17-18 April 2024) [Click here].
		▪ Report of the Fourteenth Session of the Assembly that covers Part I [Click here] and Part II of the Fourteenth session of the Assembly.
		▪ Organisation and delivery of the 27th Council meeting, including the meetings of the Administration and Finance Committee (AFC) and the Programme and Strategy Committee (PSC) [Click here].
		▪ Summary Report of the 27th Council meeting [Click here].
		▪ Organisation and delivery of the 28th Council meetings, including the meetings of the Administration and Finance Committee (AFC) and the Programme and Strategy Committee (PSC) [Click here].
		▪ Draft Summary Report of the 28th Council meeting.
		▪ On-going preparation for the Fifteenth Session of the IRENA Assembly for peer-to-peer engagement among Members and Stakeholders.
		▪ In-person engagement with Members to discuss and exchange views on enhancing strategic collaboration through the coordination of over 25 high-level Members' visits to the IRENA HQ and bilateral meetings.
		▪ Engagement and outreach with States in accession and non-Members to enhance the benefits of becoming an IRENA Member as well as expediting ratification and accession process – resulting in two states becoming IRENA Members reaching 170 Members.
		▪ In-person engagement with IGOs, Academia and Private Sector representatives to discuss and exchange views on enhancing strategic collaboration.
		**Permanent Representatives** ▪ Engagement and outreach with PRs of IRENA and

		other heads of missions to enhance their role as direct on-the-ground liaison with IRENA, resulting in over 16 ceremonies for the Presentation of Credential Letters for a total of 68 accredited Permanent Representatives.
		▪ Fifteenth edition of the Renewables Talk for IRENA Permanent Representatives in Commemoration of 15th Anniversary of IRENA and 1st International Day of Clean Energy (January 2024) [Click here].
		▪ Sixteenth edition of the Renewables Talk IRENA Permanent Representatives.
		▪ Seventeenth edition of Renewables Talk for IRENA Permanent Representatives
		**Women in Diplomacy**[101] ▪ Fifth edition of the Women in Diplomacy on Synergies for Change: Women – Diplomats Driving Joint Efforts in Renewable Energy and Climate Action, held in the margins of the Fourteenth session of the IRENA Assembly (April 2024) [Click here].
		▪ Sixth edition of the Women in Diplomacy on *Navigating* the *path to a sustainable and equitable future through the NDC partnership*, held in the margins of New York Climate Week (September 2024).
		▪ Seventh edition of Women in Diplomacy on *Africa: crossroad of the energy transition*, held at the margins of the twenty-eighth Council meeting of IRENA [Click here].
		▪ Eighth edition of Women in Diplomacy on Accelerating affordable finance to maximise gender impacts: Opportunities and Solutions to empower lives and livelihoods, held in the margins of COP29, Baku.
		▪ On-going preparation for the ninth edition of Women in Diplomacy on the margins of the Fifteenth session of the IRENA Assembly (January 2025).
		▪ The 6th ASEAN Senior Officials Meeting on Energy – IRENA[102] (June 2024).
		▪ The 8th ASEAN Ministers on Energy Meeting – IRENA[103] (September 2024).
		▪ The 4th IRENA-Singapore High Level Forum (October 2024).
		▪ "A just and inclusive energy transitions in emerging markets and developing economies: Energy planning, financing, sustainable fuels and social dimensions" report together with Brazilian G20 Presidency (October 2024)[Click here].
		▪ "Energy Planning Programme Highlights - Global collaboration and capacity building support" brochure supping the Brazilian G20 Presidency deliverables [Click here].

[101] Supported by the Government of the United Arab Emirates.
[102] Supported in part by the Government of Japan
[103] Supported in part by the Government of Japan.

		▪ "Energy Planning Programme Highlights: Global collaboration and capacity building support" report together with the Brazilian G20 Presidency (October 2024) [Click here].
		▪ "Development banks and energy planning: Attracting private investment for the energy transition; the Brazilian case" report together with Brazilian G20 Presidency (October 2024) [Click here].
		▪ Side event on *Advancing Energy Transition: The joint role of development banks and energy planning in attracting private investments to emerging markets and developing economies: the Brazilian case*, organised together with BNDES (2 October 2024) [Click here].
		▪ "Tripling renewable power by 2030: The role of the G7 in turning targets into action" report (April 2024) [Click here].
		▪ "Decarbonising hard-to-abate sectors with renewables: Perspectives for the G7" report (April 2024), together with G7 italin Presidency [Click here].[104]
		▪ "The energy transition in Africa: Opportunities for international collaboration with a focus on the G7" report (April 2024), together with G7 Italian Presidency [Click here].
Collaborative Frameworks*[105] on Critical Materials; Geopolitics; Green Hydrogen; High Shares of Renewable Energy; Hydropower; Just & Inclusive Energy Transition; Offshore Renewables; and Project Facilitation.		▪ 9th Meeting of Collaborative Framework on Ocean Energy & Offshore Renewables (8 October 2024) [Click here].
		▪ 10th Meeting of Collaborative Framework on Green Hydrogen (21 October 2024) [Click here].
		▪ 3rd Meeting of Collaborative Framework on the Critical Materials for the Energy Transition (4 April 2024) [Click here].
		▪ 4th Meeting of Collaborative Framework on the Critical Materials for the Energy Transition (15 October 2024).[Click here].
		▪ 10th Meeting of the Collaborative Framework on Green Hydrogen (21 October 2024) [Click here].
		▪ 4th Meeting of the Collaborative Framework on Just and Inclusive Energy Transitions where new co-facilitators were elected (7 October 2024) [Click here].
		▪ Meeting of the Collaborative Framework on Enhancing Dialogue on High Shares of Renewables in Energy Systems on Tripling global renewable energy capacity by 2030. (May 2024). [Click here].
		▪ Meeting of the Collaborative Framework on Enhancing Dialogue on High Shares of Renewables in Energy Systems: Modernizing and Expanding Physical Energy Infrastructure (17 October 2024) [Click here].
		▪ 8th Meeting of Collaborative Framework on Ocean Energy & Offshore Renewables (26 March 2024) [Click here].

[104] Supported in part by the Government of Italy.
[105] Supported in part by the Government of Denmark.

		▪ 4th meeting of the Collaborative Framework on Project Facilitation to Support on-the-ground Energy Transition (12 June 2024).
		▪ 8th Meeting of Collaborative Framework on Developing Sustainable Hydropower Projects (14 August 2024) [Click Here].
Accelerated Partnerships for Renewables in Africa (APRA)*[106]		▪ Zimbabwe Country Consultation Workshop (24 January 2024) [Click here].
		▪ Rwanda Country Consultations Workshop (15 February 2024) [Click Here].
		▪ Ethiopia Country Consultation Workshop (3 June 2024) [Click here].
		▪ Ghana Country Consultation Workshop (15 July 2024) [Click here].
		▪ Namibia Action Plan March 2024: compilation of actions from extensive consultations with the country, including bilateral discussions towards ambitious renewable energy deployment and green industrialisation.
		▪ Kenya Action Plan April 2024: compilation of necessary short to mid-terms interventions to accelerate ambitious renewable energy deployment and green industrialization.
		▪ Sierra Leone Action Plan May 2024: compilation of actions aimed at accelerating renewable energy deployment for enhancing electricity access, greening minerals Mining, Fisheries and Agriculture Sectors.
		▪ Rwanda Action Plan May 2024: compilation of short to mid-term priority actions to increase access to electricity, boost sustainable agriculture practices and supporting the climate goals.
		▪ APRA Investment Forum in Kenya (12-16 October 2024).
SIDS Lighthouses Initiative[107]		▪ Development of three cases studies: Antigua and Barbuda, Seychelles and Tonga to apply the SIDS LHI Progress Indicators and Impact Measures.
		▪ SIDS Lighthouses Initiative at COP29: o SIDS LHI event with UNOHRLLS: "Strengthening Public-Private Partnerships for a Green and Resilient Transition in Small Island Developing States" (14 November 2024). o SIDS LHI event with Government of Malta: "Efficient water management and Offshore Renewables a Green Opportunity for Island Blue Economies" (18 November 2024).
		▪ Stakeholder Consultation on *Legislative and Regulatory Gap Analysis to Facilitate Just Inclusive Transition for Fiji's Energy Sector* in Suva, Fiji (8-9 October 2024).

[106] Supported in part by the Government of Denmark, GEAPP and Rockefeller Brothers Fund.
[107] Supported in part by the Government of Denmark.

		▪ SIDS LHI side event at World Utilities Congress on *Fostering Public-Private Partnerships in the Renewable Energy Sector* in Abu Dhabi, UAE (18 September 2024).
		▪ SIDS Lighthouses Initiative Ministerial meeting (April 2024) – IRENA 14 Assembly.
		▪ Participation in 4th International Conference on Small Island Developing States (SIDS4) – United Nations (27-30 May 2024).
		▪ SIDS LHI High-Level Event at SIDS4 on *Transforming SIDS Economies through Energy Transition and Climate Action towards Prosperity, Resilience and Sustainable Development* (29 May 2024) [Click here].
		▪ Atlantic, Indian Ocean and South China Sea (AIS) Regional Consultative Workshop on *Provision of Development of the progress indicators and impact measures of the implementation of the SIDS Lighthouses Initiative Priority Areas - Seychelles* (March 2024) [Click here].
		▪ Caribbean Regional Consultative Workshop on *Provision of Development of the progress indicators and impact measures of the implementation of the SIDS Lighthouses Initiative Priority Areas - Jamaica* (26 February – 1 March 2024) [Click here].
		▪ "Renewable Readiness Assessment Solomon Islands" report (February 2024) [Click here].[108]
		▪ "Renewable Readiness Assessment Papua New Guinea" report.
		▪ Atlantic, Indian Ocean and South China Sea (AIS) Regional Capacity Building Workshop on *Power Purchase Agreement Negotiation and Assessment – Comoros* (2025).
		▪ Pacific Regional Investment Forum (2025).
		▪ Project Identification and Development Technical Assistance to the Government of Vanuatu.
		▪ Increase in SIDS Lighthouses Partners (January 2024 to present) by 7 new partners.[109]
		▪ Updating QuickScans report specifically tailored for Small Island Developing States (SIDS), providing a concise overview of their renewable energy potential, power sector characteristics, and opportunities for accelerating the energy transition.
		▪ Developing an interactive QuickScans dashboard for SIDS, offering a user-friendly platform to visualize key data, explore renewable energy scenarios, and track progress towards energy targets.

[108] Supported by the Government of Germany and the Government of Denmark through the SIDS Lighthouses Initiative.
[109] New SIDS LHI Partners: Jamaica, Malta, Asian Infrastructure Investment Bank, Barefoot College, Drift Energy, Green Solutions International SKN, Local2030 Island Network.

		▪ Carrying out a survey focusing on the Caribbean, Indian Ocean, and Pacific island assessing their vulnerabilities to climate change, energy needs, and opportunities for renewable energy-based solutions to enhance resilience.
		▪ Developing a NDC implementation study analysing the decarbonization potential of the Seychelles transport sector, assessing the feasibility of transitioning to electric vehicles and the associated impacts on the national grid infrastructure.
		▪ SIDS Annual Progress Report.
		▪ Evaluation study of the Entrepreneurship Support Facility (February 2024).
Access: Beyond Food; Empowering Lives & Livelihoods[110]; and IOREC*[111]		▪ **Empowering Lives and Livelihoods – Renewables for Climate Action (L&L) initiative**: o Engaged with 13 countries, undertaking assessments and programme development for funds mobilisation: Burkina Faso, Cuba, The Gambia, Guinea, Malawi, Mali, Mauritania, Mozambique, Nepal, Rwanda, Sao Tome and Principe, Uganda, and Zambia.
		o Signed MoUs with SELCO Foundation (India) and SNV (Netherlands), while firming up a concrete scope of work for the L&L initiative.
		o Developed a proposal with SNV-Nepal to fund implementation in-country.
		o Finalised MoU with Power Africa Health and Telecommunication Alliance (HETA) for IRENA to join the alliance.
		o Working with the International Institute of Environment and Development (IIED), UK on development of adaptation metrics on renewables-based energy access in the agriculture sector.
		o Collaboration with FAO, GOGLA, UNDP, UNICEF, World Bank and WHO and undertaking discussions with other initiatives and institutions for partnership on LnL.
		o Continuation of Advisory of joint initiative or IRENA and other partners: CORE – Cornerstone of Rural Electrification.
		o Advisory member of MECS Home - Modern Energy Cooking Services.
		o Supporting new partnership on Agrivoltaics: Home | Consortium for Sustainable Agrivoltaics.
		o Emerging new partnership on Energy-Agri Food Systems Nexus led by GOGLA with IRENA, GIZ, AGRA, Energy Savings Trust (UK), GAIN, Wageningen University, and SNV

[110] Supported in part by the Walloon government, the Government of the UAE and the Open Society Foundation.
[111] Supported by the Walloon government.

		as consortium members.
		▪ 6th International Off-grid Renewable Energy Conference will take place in Gaborone, Botswana hosted by the Government of Botswana and co-organized by SADC Centre for Renewable Energy and Energy Efficiency (SACREEE), United Nations Industrial Development Organisation (UNIDO) and IRENA.
		**Guinea** ▪ Validation workshop on *Decentralised renewables for powering agri-food chains in Guinea,* Conakry (February 2024) [Click here].
		▪ "Decentralised renewables for powering agri-food value chains in the Republic of Guinea" report.
		**Mauritania** ▪ Stakeholder consultations on *Decentralised renewable energy solutions for powering artisanal fishing sector in Mauritania, Nouakchott* (February 2024).
		▪ Validation workshop on *Decentralised renewable energy solutions for powering artisanal fishing sector in Mauritania,* Nouakchott (December 2024) [Click here].
		▪ "Electrification with Renewables: Enhancing Healthcare Delivery in Mozambique" report.
		**Nepal** ▪ Validation workshop on *Decentralised renewables for powering agri-food chains in Nepal,* Kathmandu (April 2024).
		▪ "Decentralised renewables for powering agri-food chains in Nepal" report.
		**Zimbabwe** ▪ Validation workshop on *Decentralised renewables for powering agri-food chains in Zimbabwe,* Harare (June 2024.
		▪ Validation workshop on *Electrification with renewables: Enhancing healthcare delivery in Zimbabwe,* Harare (December 2024).
		▪ "Roadmap for Sustainable Energising of Healthcare Delivery in Zimbabwe" report.
		**Malawi** ▪ Validation workshop on *Decentralised renewables for powering agri-food chains in Malawi,* Lilongwe (July 2024).
		▪ "Decentralised renewables for powering agri-food chains in Malawi" report.
		**The Gambia** ▪ Stakeholder consultations on *Decentralised renewable energy solutions for powering agri-food sector in The Gambia*, Banjul, (September 2024).

		**Mozambique** ▪ Validation workshop on *Electrification with renewables: Enhancing healthcare delivery in Mozambique,* Maputo (September 2024).
		**Mali** ▪ Validation workshop on *Electrification with renewables: Enhancing healthcare delivery in Mali,* Bamako (November 2024).
		▪ Event on *Harvesting Synergies: The Water-Food-Energy Nexus for Enhanced NDCs* during the Fourteenth session of the IRENA Assembly (April 2024).
		▪ *Empowering Lives and Livelihoods – Renewables for Climate Action*, Iceland Geothermal Conference, Iceland (May 2024).
		▪ *Accelerating affordable finance to maximise gender impacts: Opportunities and Solutions to empower lives and livelihoods*, at COP29 Women in Diplomacy event (November 2024).
		▪ *Renewables for Climate Action - Reinforcing Resilience in Agri-Food Systems*, at the UNCCD 16th session of the Conference of the Parties (December 2024).
		▪ "Electrification with renewables: Enhancing healthcare delivery in São Tomé and Príncipe" report (June 2024) [Click here].[112]
		**Entrepreneurship Support:** ▪ Evaluation study of the Entrepreneurship Support Facility (February 2024)
		▪ Workshop on *Enhancing business skills* in Windhoek, Namibia co-hosted with the Southern Africa Centre for Renewable Energy and Energy Efficiency (SACREEE)[113] (20 May 2024).
		▪ Event on *Leaving no one behind: Renewable Energy Solutions for Remote and Underserved Communities*, at COP29, Baku Azerbaijan, (November 2024).
Technology and decarbonisation: Alliance for Industry Decarbonisation (AFID)[114]; Utilities for Net Zero (UNEZA)[115]; GOWA[116]; GGA[117]; LTES[118] network; and		**Alliance for Industry Decarbonization (AFID**) *[120] ▪ Digital Learning platform "MyChange" on sustainability (January 2024).
		▪ Decarbonization sessions: IRENA 14th Assembly and WFEF (April 2024).

[112] Supported by the Walloon government and the Government of Germany through its International Climate Initiative (IKI).
[113] Supported by the Government of the United Arab Emirates.
[114] Supported by the Government of the United Arab Emirates.
[115] Supported by the Government of the United Arab Emirates.
[116] Supported in part by the Government of Denmark.
[117] Supported in part by the Government of Iceland and the Government of Japan.
[118] Supported in part by the Government of Denmark.
[120] Supported by the Government of the United Arab Emirates.

RE for Peacekeeping*[119]		▪ AFID session at AIM Congress (May 2024) [Click Here].
		▪ "Solutions to Decarbonize Heat in the Steel Industry" report [Click here].
		▪ "Green Hydrogen: A Cross-Industry Dialogue for Sustainability" report [Click here].
		▪ "Accelerating decarbonisation using bioenergy with carbon capture, utilisation and storage" report [Click here].
		▪ "Advancing bioenergy with Carbon Capture, Utilization, and Storage (CCUS) - Policies, Regulations, MRVs and Certification" report [Click here].
		▪ AFID Commitment – COP29 [Click here].
		▪ AFID Commitment – COP28 [Click here].
		▪ Concept of enterprise twinning platform & ESG.
		▪ "Opportunities for BECCUS projects at the national/regional level in different geographies" report.
		▪ Open Book on green hydrogen projects including large scale industrial projects.
		▪ Circularity blueprints for decarbonization for industries.
		▪ "Overcoming challenges and fostering finance solutions for industry decarbonization" report.
		▪ AFID decarbonization sessions: Climate Week NYC, USA (September 2024).
		▪ AFID CEO Dialogue: COP29 in Azerbaijan (November 2024) [Click here].
		**Utilities for Net Zero Alliance (UNEZA)** ▪ "Roadmap to 2030" (April 2024) [Click here].
		▪ Plan of action for 2024-2025 (April 2024) [Click here].
		▪ Development of Alliance Governance (June 2024) [Click here].
		▪ Joint thought leadership 'Grid lock to global grid, outlining strategies to overcome energy transition challenges.
		▪ Interviews to identify barriers to clean energy deployment in the Global South (August 2024) [Click here].
		▪ Large grid infrastructure projects (December 2024).

[119] Supported in part by the Government of UAE.

		▪ High-level policy statement with recommendations by industry on Clean Energy Supply Chains. (August 2024) [Click here].
		▪ Announce collective, medium-term demand signal to encourage capacity expansion among OEMs (November 2024) [Click here].
		▪ Encourage mandates for the use of harmonized international standards for critical equipment (December 2024).
		▪ UNEZA net-zero sessions: Climate Week NYC, USA (September 2024) [Click here].
		▪ UNEZA net-zero sessions: World Utilities Congress in UAE (September 2024) [Click here].
		▪ UNEZA net-zero sessions: COP29 in Azerbaijan (November 2024).
		**Long-Term Energy Scenarios (LTES)** ▪ "Synthesis of experiences and good practices" from the webinar series on Long-Term Energy Scenarios (LTES) in Asian countries [Click here].
		▪ Webinar Series on energy planning to facilitate the mobilisation of finance and de-risk investment for the energy transition [Click here].
		▪ Follow-up analysis report on the alignment of Long-Term Energy Scenarios and Long-Term Low Emission Development Strategies (TE-LEDS) at a country level.
		▪ Energy Planning Dashboard, global repository of energy planning documents and modelling tools.
		▪ Support to the G20 Energy Transition Working Group (ETWG), sharing learnings and insights from the country and experts' experiences on leveraging energy planning frameworks to de-risk investment and strengthening energy planning capacities for a just clean energy transition; and providing inputs for the G20 proposal of a Global Coalition on Energy Planning.
		▪ Knowledge Product: Toolkit for government scenario planners, synthesising good practices on participative stakeholder engagement processes for developing and using LTES.
		▪ Webinar series: Peer-to-Peer learning within the energy scenarios practitioners' community.
		▪ 5th International Forum on LTE [Click here].
		▪ Synthesis report on LTES experiences and good practices to update the 2020 Scenarios for the Energy Transition: Global experiences and best practices" report.
		▪ Webinar series to exchange experiences and knowledge on LTES focusing on Central Asia.

		**Global Geothermal Alliance (GGA)** ▪ Continued collaboration with key institutions, including the International Geothermal Association (IGA), Geothermal Rising, World Bank (WB), and International Finance Corporation (IFC), while engaging with other initiatives and institutions for partnerships on advancing geothermal development globally.
		▪ Co-hosted workshop with King Abdullah Petroleum Studies and Research Center (KAPSARC) & co-published brief on "Scaling Up Geothermal Power Generation to Rebalance the Energy Trilemma" (January 2024) [Click here].
		▪ GGA Annual Meeting at the Fourteenth Session of IRENA Assembly (18 April 2024).
		▪ Participated in the Icelandic Geothermal Congress (IGC) (May 2024).
		▪ Developing a Stakeholder engagement strategy for the OECS Geothermal Energy for Capacity Building, Utilisation, Investment and Local Development (GEOBUILD) Programme in the Caribbean.
		▪ Kick-off meeting for the Stakeholder Engagement Strategy for the OECS in the GEOBUILD project (13 November 2024).
		**Uganda** ▪ High-level ministerial and stakeholder meetings, to explore geothermal direct-use applications, policy alignment and capacity building in Entebbe, Uganda (16 October 2024).
		▪ Developing a concept for geothermal direct-use implementation in Uganda, focusing on knowledge sharing and work training programs.
		**Kenya** ▪ High-level Ministerial and stakeholder meetings, to discuss scaling geothermal direct-use applications and strengthening partnerships. Nairobi, Kenya (17 October 2024).
		▪ Participation in KenGen's 10-year Strategic Event. Naivasha, Kenya (18 October 2024).
		▪ Developing a concept for geothermal direct-use implementation in Kenya, addressing technical implementation, policy needs and capacity building measures.
		**St. Kitts and Nevis** ▪ Technical advisory on scaling and optimizing geothermal energy in that region, including a reassessment of technical and financial models to ensure long-term sustainability.
		▪ Technical advisory on an article for the Washington Post on "How Japan could finally tap into its giant geothermal energy reserve" (September 2024).

		▪ Technical advisory on an article on "Local hot spring owners mitigate concerns about nearby geothermal plant with centuries-old healing tradition: We need to think about creating a new identity" – The cool down (October 20204) [Click here].
		**RE in Peacekeeping** ▪ Energy Transition Assessment Report Somalia.
		▪ Joint session on *Renewable Energy and Peace* at COP29 (November 2024).
		**Global Offshore Wind Alliance (GOWA)** ▪ Provision of substantive technical expertise and guidance in developing its comprehensive work plan, ensuring alignment with global renewable energy targets and outlining a strategic roadmap for advancing offshore wind deployment.
		▪ Contributed to the establishment of the GOWA Secretariat, providing operational support and guidance to ensure efficient functioning.
		▪ Provision of regular updates on the Alliance's development and fostering a collaborative and informed community of practice.
		▪ Close coordination with relevant international organisations and initiatives, to ensure complementarity of efforts, avoid duplication, and maximize collective impact.
		▪ Establishing close links between GOWA and IRENA's Collaborative Framework for Offshore Renewables (CFOR).
		▪ Development of a concise brief on GOWA, highlighting benefits of offshore wind development, showcasing successful case studies, and providing guidance on policy frameworks and investment opportunities to accelerate offshore wind deployment in emerging markets.
		▪ Supported the organisation of a high-level ministerial session at the IRENA Assembly.
		▪ Provision of strategic and logistical support to the GOWA Steering Committee.
		▪ Supported membership expansion by four new members (Canada, Nova Scotia, Newfoundland and Labrador, and New York State).
		**Regulatory Energy Transition Accelerator (RETA)** ▪ Collaborate with the IEA and the World Bank on the RETA platform.
		▪ Streamlining regulatory frameworks, addressing barriers to investment, and creating an enabling environment for the rapid deployment of renewable energy technologies, in collaboration with the IEA and World Bank.

		▪ "Unlocking the potential of regional interconnections: Technical and regulatory harmonisation of grid codes" report.
		▪ Capacity-building activities for SIDS regulators to develop and implement effective island-specific grid codes and regulations that facilitate the integration of high shares of renewable energy in an island context.
		**Marrakech Partnership for Global Climate Action** ▪ Facilitated dialogue, consolidating key messages, and ensuring the voices of these stakeholders are effectively represented at COP29.
		▪ Actively engaging with the High-Level Climate Champions from the UAE and Azerbaijan to amplify the impact of the Marrakech Partnership's initiatives and advocate for ambitious climate action from all sectors.
		▪ Led the development of the infrastructure and resilience section of the Sharm el-Sheikh Adaptation Agenda (SAA) annual report, highlighting the role of resilient infrastructure in achieving climate adaptation goals and showcasing best practices and innovative solutions from non-state actors.
		**Cool Coalition** ▪ Promoting district cooling technologies, facilitating knowledge sharing, showcasing best practices, and accelerating the deployment of sustainable cooling solutions to reduce reliance on coal-based power generation.
		▪ Contributed a comprehensive technology chapter to the UNEP Global Cooling Report, focusing on the role of renewable energy-based cooling solutions in mitigating climate change and achieving sustainable development goals.
		**Clean Energy Ministerial's Transforming Solar Supply Chains (TSSC) Initiative** ▪ Supporting TSSC's Workstream II by developing analysis on solar PV supply chain economics and opportunities, providing insights to support countries in developing competitive and sustainable solar PV industries.
		▪ Supporting TSSC's workstream 3 by developing analysis on standards for solar PV supply chains, contributing to the development of greater transparency and sustainability within the industry.
		**Energy Transition Education Network (ETEN)** ▪ On-going efforts to build the membership of the Energy Transition Education Network by engaging with education and training providers.

		▪ Facilitating exchange of best practice between providers, including development of case study library with education and training best practices and resources.
Skill development: Initiatives on Energy Transition Education Network[121]; Entrepreneurs; Youth[122] and Legislators Forum.		▪ Skills gap survey.
		▪ Energy Transition Career Guide.
		**Youth** ▪ Launched call for applications for the second cohort of the IRENA NewGen Renewable Energy Accelerator Programme for Youth (March 2024) [Click here].[123]
		▪ Fifth IRENA Youth Forum during the Fourteenth session of the IRENA Assembly (April 2024) [Click here].[124]
		▪ Introduction of the IRENA Youth Social Media Ambassadors for the IRENA Youth Forum, involving four youth delegates to take photographs and provide coverage of the event (April 2024) [Click here].
		▪ Youth event on *Exploring Youth Entrepreneurial Solutions* in *the Sustainable Energy & Green Sector* organised at the IRENA Pavilion during the World Future Energy Summit held in Abu Dhabi (April 2024) [Click here].
		▪ Launch of the second cohort of the IRENA NewGen Renewable Energy Accelerator Programme for Youth (May 2024))[Click here].
		▪ Youth event on *Green Value Chain Integration: Opportunities for Youth-led innovations to accelerate green transition in private & public sectors* organised at the Annual Investment Meeting Congress 2024 in Abu Dhabi (May 2024) [Click here].
		▪ Second edition of the IRENA NewGen Award (September 2024 [Click here].
		▪ Launch of the IRENA Youth Logo Contest 2024 [Click here].
		▪ On-going preparation for the Sixth IRENA Youth Forum, which will be convened from 9 - 13 January 2025 in Abu Dhabi, United Arab Emirates at the margins of the fifteenth session of the IRENA Assembly (11-13 January 2025).
		▪ Launch of the call for application for the sixth IRENA Youth Forum: The New Generation of Decision Makers [Click here].

[121] Supported by the Government of Germany.
[122] Supported in part by the Government of Italy.
[123] Supported by the Government of the United Arab Emirates.
[124] Supported by the Government of the United Arab Emirates and the Global Energy Alliance for People and Planet.

		**Legislators Forum** ▪ Ninth edition of the IRENA Legislators Forum during the Fourteenth session of the IRENA Assembly (April 2024) [Click here].
		▪ IRENA Legislators Dialogue on Power Up the Future – a dialogue with Youth held in the margins of the Fourteenth session of the IRENA Assembly (April 2024).
		▪ On-going preparation for the tenth edition of the IRENA Legislators Forum, which will take place at the margins of the fifteenth session of the Assembly in January 2025.
Coalition for Action: White papers and joint actions		▪ Outreach and engagement: o Identify and integrate new members into the Coalition for Action – 12 new members, totalling 158 Coalition members.
		o Engage Coalition Members, including by bringing in Global leaders across the Coalition Membership to IRENA-led events, for review of deliverables to reflect on-the-ground experience(s) and ensure impactful knowledge sharing and capacity building.
		▪ Technical webinar with Coalition members and ECOWAS regional energy institutions on *Enhancing Investments in RE and Regional Connectivity Across West Africa* (February 2024) based on the "Scaling Up Renewable Energy Investments in West Africa" report [Click here].
		▪ Annual satisfaction and work program survey followed by virtual consultation to discuss and validate recommendations derived from the survey (January - March 2024).
		▪ "100% Renewable Energy Scenarios: Supporting Ambitious Policy Targets' report (April, 2024) [Click here], launched at the High-Level Public-Private Dialogue, held in the margin of the 14th Session of the IRENA Assembly.
		▪ "Moving to 100% Renewable Energy System, Policy recommendations" report. An intermediary event was held at COP29 with Coalition members providing expert input into the forthcoming draft [Click here].
		▪ Annual Strategy meeting for Coalition members to finalise and adopt the Work Programme for 2024-2025 (15 April 2024).
		▪ High-Level Public-Private Dialogue on *Building Momentum Towards a 100% Renewable Energy System* during the 14th Session of the IRENA Assembly (16 April 2024).
		▪ Side event on "*Harvesting Synergies: The Water-Food-Energy Nexus for Enhanced NDCs"* at the 14th Session of the IRENA Assembly (16 April 2024).
		▪ "Community Energy Benefits: Powering Universal Wellbeing" report, launched at COP29 event on

		Community Energy: Sharing the Benefits Widely (Nov 2024) [Click here].
		▪ "Citizens in the Energy Transition: Driving change, sharing benefits" report - deprioritised due to capacity constraints.
		▪ "Best Practices for Agri-Renewable Projects" report.
		▪ "Renewable Energy Siting and Permitting: Balancing Climate and Nature Conservation Goals" report.
		▪ "Regional: Scaling up investments in Indonesia" brief will be set aside due to insufficient capacity from Coalition members to co-author the report.
		▪ "Regional: Scaling up investments in Argentina" report.
		▪ "Decarbonising End Use Sectors Working Group: How to make green hydrogen utilisation economically viable: opportunities, challenges and key recommendations" brief. Coalition members will be adding input through a dedicated survey IRENA is conducting, to develop a study aimed at understanding the specific risks perceived by investors and stakeholders in green hydrogen projects.
		▪ "Key Enablers for The Energy Transition: Solar PV And Storage" report. Preliminary findings were launched at the World Energy Storage Conference, where the Coalition also held an expert industry roundtable with its members on the topic [Click here for preliminary findings, and here for event information].
		▪ "Repowering for Tripling: Advancing Wind Energy" webinar (October 2024) - Coalition members provided expert insights to the topic with specific case studies and policy recommendations – the outcome of which will be a short call to action on the importance of repowering wind energy for Q1 2025 [Click here for event information].

III. Global Voice of Renewables

Core assessed and core non-assessed resources (in USD thousands): 8,107. Key activities supported by additional voluntary contributions are footnoted.

Objective: Pursue excellence in renewables innovation, development and deployment and promote practical application of knowledge for systemic change.

Key activities	Status	Description
End-use transition: Analysis on technology status, innovative		▪ "Decarbonising hard-to-abate sectors with renewables:

alternatives and enabling frameworks for the energy transition in end-use sectors; policies for decarbonisation of industry; Hydrogen for RE transition including technology status, innovative alternatives and enabling frameworks for the scale-up of green hydrogen (Target 3)		Perspectives for the G7"[125] report for the 2024 G7 Presidency (April 2024) [Click here].
		▪ "International co-operation to accelerate green hydrogen deployment" report (April 2024) [Click here].
		▪ Assessment of renewable and hydrogen pull effect in developing countries.
		▪ "Green hydrogen for sustainable industrial development" report in collaboration with UNIDO and IDOS (February 2024) [Click here].
		▪ "Green hydrogen auctions: A guide to design" report (October 2024). [Click here]
		▪ "Green hydrogen strategy: A guide to design" report (July 2024) [Click here].
		▪ Shaping sustainable international hydrogen value chains" report (September 2024) [Click here].
		▪ Enabling global trade in renewable hydrogen and derivative commodities. (November 2024) [Click here].
		▪ "Reaching Zero with renewables in aluminum" report.
		▪ "Derisking green hydrogen" report.
		▪ Global installation forecast and market potential of next-Generation (perovskite) solar cells - desk research delivered in August 2024.[126]
		▪ "Accelerating Green Hydrogen Deployment in the industry of Central Asia and the South Caucasus" report.
Critical materials: Analysis of current and future demand and supply of critical materials for the energy transition and the potential for technological substitution through innovation (Target 1).		▪ "Critical Materials: Batteries for electric vehicles" report (October 2024) [Click here].
		▪ Constructing a ranking of critical materials for the global energy transition (October 2024) [Click here].
		▪ Critical Materials for renewable energy: Improving data governance (October 2024) [Click here].
		▪ Technical brief on Sodium-ion batteries.
NDCS and RE targets: analysis on ambition and impact of RE targets and NDCs (Target 2).		▪ Analysis integrated into the "Tracking progress towards Tripling" report (October 2024) [Click here].
Technology specific: Analysis on sustainable Aviation Fuels in Southeast Asia; policies for end-of-life management of wind power		▪ "Assessment of barriers and enablers to foment the production of sustainable aviation fuels in the Southeast Asian Region" report.
		▪ Floating offshore wind outlook (July 2024) [Click here].

[125] Supported in part by the Government of Italy.
[126] Supported by the Government of Japan.

and the circular economy (Target 2).		▪ Contributed to the development of a set of best practices for integrating renewable energy technologies, including wind and solar power, into UNESCO World Heritage sites, balancing the need for clean energy solutions with the imperative of cultural preservation.
		▪ Workshop to present the findings, co-organized by UNESCO and Wallonia, with at least 10 countries.
		▪ Collaborating with the Global Wind Organization (GWO) to develop guidelines for offshore wind technician training programs tailored to the specific needs of developing countries. The guidelines will facilitate knowledge transfer and capacity building across both North-South and South-South contexts.
Infrastructure*[127]: Analysis on technology cost and performance; Flexibility, storage and power to X; Planning; Policy for decentralised solutions (Target 4).		▪ "Hydrogen Trade Outlook for Southeast Asia"[128] report.
		▪ "A Quality infrastructure roadmap for green hydrogen" report (November 2024) [Click here].[129]
		▪ E-learning course on mini-grid policy and regulations, covering topics such as legal and licensing provision, tariff setting and main grid arrival. The course will also cover business models for mini-grids and how they are affected by different types of regulations.[130]
		**Grid Integration and Resilience** ▪ Report on grid modernization strategies for developing countries, outlining best practices, technology options, and policy recommendations to enhance grid efficiency, reliability, and integration of renewable energy sources.
		▪ Report on enhancing grid resilience in developing countries, focusing on strategies to mitigate the impacts of climate change, extreme weather events, and other disruptions to electricity supply.
		▪ Capacity-building activities on grid infrastructure planning and development for Sub-Sahara Africa, SIDS and ASEAN, strengthening their expertise in integrating renewable energy sources, evaluating regional interconnections, enhancing grid reliability, and expanding access to electricity.
		▪ Survey on grid infrastructure development challenges and opportunities in Africa, gathering valuable data and insights to inform policy recommendations and investment strategies.
		▪ Survey and interview of SIDS stakeholders to identify policy and technical challenges related to grid integration of renewable energy sources in island contexts. This will inform the development of targeted support for SIDS to increase their share of renewables.
		▪ Developed grid modernisation capacity building modules on advanced grid technologies and planning approaches to support system operators in developing

[127] Supported in part by the European Commission.
[128] Supported by the Government of Japan.
[129] Supported by the Government of Germany (PTB).
[130] Supported in part by the Walloon government.

		countries in managing grid stability and reliability with increasing levels of variable renewable energy sources.
		▪ Supported USAID's efforts to enhance grid integration of renewable energy in West Africa through capacity-building activities to the Power Africa West Africa Energy Program (WAEP). The activities contributed to the AfDB's Desert to Power initiative's training programs, showcasing successful collaboration in strengthening regional grid infrastructure to accommodate increasing renewable energy deployment.
		▪ Analysis of policies for distributed PV in SIDS, South Asia remote communities (islands and villages), and developing countries with high electrification rates but with frequent blackouts (e.g. Lebanon, Pakistan, South Africa).[131]
		▪ "Cost trends of the utility-scale of storage battery systems assessment" report.[132]
		▪ "Trends in business models and business feasibility of energy services from utility scale battery storage" report [133].
		▪ "Electricity storage market analysis by 2030" report. [134]
		▪ "Renewable energy in climate change adaptation: Metrics and Risk assessment framework" report.[135]
		▪ "Socio-economic impact assessment tool of climate change adaptation" report.[136]
		▪ Webinar on *Grid Infrastructure and Migratory Birds* co-organised with CMS-Raptors (7 November 2024) [Click here].
		▪ Webinar on *Enhancing Local Environment Through Renewables* co-organised with IUCN (11 December 2024).
Nexus*[137]: RE in Gender, RE in adaptation (Target 2).		▪ IRENA's International Women's Day event on *Invest in Women: Accelerate Progress Through Renewable Energy* (8 March 2024) [Click here].
		▪ Online survey[138] to generate data for IRENA's latest editions of the *A Gender Perspective* series (covering the entire RE landscape).
		▪ "Decentralised solar PV: A gender perspective" report (October 2024) [Click here].
Institutional capabilities: Analysis of policies for livelihoods (Target 1)		▪ "Public finance for universal energy access" report (April 2024) [Click here].[139]
		▪ "Socio-economic Footprint of the Energy

[131] Supported in part by the Walloon government.
[132] Supported by the Government of Japan.
[133] Supported by the Government of Japan.
[134] Supported by the Government of Japan.
[135] Supported by the Walloon government.
[136] Supported in part by the Government of Denmark.
[137] Supported in part by the Walloon government.
[138] www.irena.org/gendersurvey.
[139] Supported in part by the Walloon government and the Government of Norway.

		Transition: ASEAN" report. [140]
		▪ "Socio-economic Footprint of the Energy Transition: Malaysia" report. [141]
Global communications strategy with multi-lingual content, information and outreach.		▪ IRENA communications priorities defined for 2024, and communications strategy implemented.
		▪ IRENA communications campaign[142]: The global campaign around tripling renewable power capacity and tracking COP28 outcomes started with a pre-campaign activity at the IRENA Assembly 2024. The main campaign was launched in mid-October 2024 under a tagline: #3xRenewables - for the planet and its people, following the flagship report "Delivering the UAE Consensus" launch at Pre-COP29 events. The campaign will continue throughout 2025, with key moments around high-level events, publication launches and rollouts of original multimedia content.
		▪ Launched a human impact video series (5 videos) on unlocking the positive impacts of the energy transition on people and the planet under the #3xRenewables campaign: https://www.irena.org/3xrenewables.
		▪ Press releases & translations, international media outreach, social media activities and other communications efforts amplified the reach of key publications including "Delivering the UAE Consensus"; "World Energy Transitions Outlook 2024"; "Renewable energy and jobs: Annual review 2024"; "Renewable power generation costs in 2023"; "Tracking SDG7"; "Geopolitics of energy transition: Energy security"; World Energy Transition brief on "Tracking COP28 outcomes: Tripling renewable power capacity by 2030"; and G7 briefs collection: "Tripling renewable power by 2030: The role of the G7 in turning targets into action"; "The energy transition in Africa: Opportunities for international collaboration with a focus on the G7"; "Decarbonising hard-to-abate sectors with renewables: Perspectives for the G7"; "Renewable energy statistics 2024"; "Renewable energy capacity statistics 2024" and two G20 reports.
		▪ Strategic communications support around key, global high-level events, including IRENA Assembly, G7 events, BETD, SIDS4 and other SIDS events, International Day of Clean Energy, IRENA 15th anniversary, IEW 2024, UN General Assembly and NY Climate Week, and COP29.
		▪ Seven visual stories published.
		▪ Launched a video series on socio-economic impacts of renewables in SIDS [Click here; Click here] in connection with these reports.

[140] Supported by the Government of Denmark.
[141] Supported by the Government of Denmark.
[142] Supported in part by the Government of Germany and the Global Energy Alliance for Planet and People.

		▪ Four digital reports based on flagship publications published on irena.org.
		▪ 96 videos published across the website and social media, including creative and human impact stories (32), innovative motion graphics -video and animation mix (14), member statements (19), event and webinars recordings (31).
		▪ Issued 97 IRENA publications (end-November 2024), comprising 43 IRENA reports [Click here]; 11 Partnership reports; and an additional 43 technical advisory and other knowledge products.
		▪ Issued 36 IRENA report translations (languages: Arabic, Chinese, English, French, German, Italian, Japanese, Portuguese, Russian and Spanish).
		▪ IRENA publications featured on knowledge-sharing platforms and in electronic libraries/stores, including Apple store, Scribd, Refinitiv, Amazon and others.
		▪ Maintained regular strategic publication output, with predictable flagship reports, timely thematic studies, and other specialised releases.
		▪ Continued application of the Agency's digital-first communication approach, with printing limited to key publications and/or peripherals for major events, and the finalisation of the third edition (release in December 2024) of the IRENA Publications Catalogue featuring QR codes for PDF downloads.
		▪ Re-issued the IRENA Publications management guidelines in December 2024.zation
		▪ Hosted full briefing for existing and new IRENA staff to highlight key updates to IRENA publishing procedures and quality control processes (February 15, 2024), as well as to introduce new software. Also hosted a workshop on report-writing techniques featuring IRENA Technical Reviewer, Paul Komor (May 2024).
		▪ Maintained management and oversight of the IRENA.PleaseReview platform for all teams across the Agency, providing efficiency, security and transparency in the peer review process for publications.
		▪ Completed a system-wide software update in November 2024. 70 publications have been reviewed using the system to date in 2024.
		▪ Continued discussions to implement a comprehensive Publications Management System to digitalise the entire IRENA publications management procedure and related processes. Initial concept/map of the PMS completed in June 2024, but project put on hold by IT owing to lack of capacity
Innovation to Foster the		▪ "Certification of green hydrogen derivatives" report. (October 2024) [Click here].

Renewable Energy Transition (IFRET) (Target 1).[143]		▪ Development of Toolbox on enablers for deployment of offshore renewable technologies.
		▪ Development of toolbox on enablers to decarbonise end-use sectors.
		▪ Development of model for the trade of green commodities.
		▪ Development of capacity building and analytical knowledge and material on urban energy planning primarily for countries with Eastern European climates, promoting sustainable and integrated urban energy systems.

IV. Support for Regions and Countries

Core assessed and core non-assessed resources (in USD thousands): 9,292. Key activities supported by additional voluntary contributions are footnoted.

Objective: Assist regional and country-level decision-making and support implementation strategies to reduce global emissions, adapt to climate change, and improve energy access, security and affordability for sustainable development

Key activities	Status	Description
End use transition: Capacity building and technical assistance on the design of hydrogen strategies; capacity building on policies for RE in end-use and circular economy (Target 2)		▪ Webinar on *Leveraging Industry's Role for Accelerating Green Hydrogen Development* in collaboration with MED•GEM Network (29 April 2024) [Click here].
		▪ Workshop on *Policies and measures for green hydrogen deployment in Türkiye* (December 2024) [Click here].
		▪ East Africa Statistics training workshop, held in Uganda[144] (October 2024) [Click here].
		▪ Green Hydrogen Workshop, Iran (November 2024).
NDCs and RE targets: capacity building and technical assistance on energy planning*[145],, long term energy scenarios, on climate action plans*[146] design of RE targets and policies; technical assistance on RE potential. (Target 20)		▪ Bilateral NDC engagement through input, recommendation, review and dialogues.
		▪ Overview of countries' climate commitments, including NDCs and LT-LEDS, to be delivered through reports, including: o Climate Action Support 2024" report. (November 2024) [Click here] o Overview of countries' plans, challenges, support needs and good practices through NDC survey, including an outcome report. o Climate action and the energy transition: IRENA Member survey on Nationally Determined Contributions (June, 2024) [Click here]

[143] Supported in part by the European Commission.
[144] Supported by the Government of Germany.
[145] Supported in part by the Walloon government.
[146] Supported in part by the Government of Denmark.

		**NDC Partnership** ▪ Active participation in NDC Partnership Steering Committee meetings, providing expert input on renewable energy integration and contributing to strategic decision-making
		▪ Provided support to the NDC Partnership in developing its 2030 workplan, ensuring alignment with global renewable energy targets and contributing to a robust roadmap for climate action.
		▪ Collaborated with the NDC Partnership to support the development and enhancement of the NDC Navigator 3.0, a comprehensive online platform providing guidance, resources, and tools for countries to enhance their NDCs and accelerate climate action.
		▪ Provision of tailored technical assistance to at least 15 countries under the NDC Partnership framework, strengthening their capacity to implement ambitious climate commitments: o Facilitating the alignment of energy and climate planning in Georgia through a comparative analysis of the NDC, LT-LEDS, and NECP, offering recommendations for consistency and enhanced ambition
		o Supporting the prioritisation and costing of NDC actions in Tanzania, focusing on renewable energy and energy efficiency technologies
		o Conducting a vulnerability assessment of power infrastructure in El Salvador to provide adaptation recommendations to enhance the climate resilience of the energy sector.
		o In discussions with 13 additional countries, including South Africa, Namibia, Tunisia, Benin, Burkina Faso, Fiji, Samoa, Marshall Islands, Malawi, Moldova, Tonga, Peru, and Colombia, to explore potential NDC Partnership support and identify opportunities to enhance their climate ambition.
		o Developing a comprehensive NDC 3.0 toolkit on climate action, including mitigation, adaptation, grid infrastructure, and roadmaps, providing practical guidance and resources to support countries in enhancing their NDC 3.0.
		o Developing a comprehensive capacity-building toolkit on LT-LEDS for developing countries, providing practical guidance, resources, and best practices to support countries in developing ambitious and achievable long-term climate strategies.
		▪ Led the energy components in the NDCs 3.0 Regional Forum for Eastern Europe and Central Asia, organised by the NDC Partnership and other partners providing expert insights and guidance on accelerating renewable energy deployment, grid integration, and policy frameworks to support participating countries (Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo,

		Kyrgyzstan, Moldova, Montenegro, North Macedonia, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, and Uzbekistan) in enhancing their climate mitigation and adaptation efforts.
		▪ Bilateral NDC support: o Supporting the Maldives, Mauritius, and British Overseas Territories in strengthening their island-specific NDCs, focusing on renewable energy integration, climate adaptation measures, and resilient infrastructure development.
		o Comprehensive support to the UAE in strengthening their NDC, delivering tailored modelling support to enhance the accuracy and ambition of their emissions reduction targets.
		o Convened event on Tripling renewable energy capacity by 2030 during the SB60 Bonn Climate Change Conference, in collaboration with the LDC, SIDS, and Africa Group of Negotiators Co-Chairs, attended by representatives from approximately 15 countries.
		▪ Nationally Determined Contributions/ National Energy and Climate Plans Alignment studies for Energy Community countries.
		▪ Continental Power Systems Masterplan (CMP) programme: Phase 2 has been completed and synthesis reports to be published by AUDA-NEPAD. Preparation of the official launch of Phase 3 is complete and now moving to the implementation phase.[147]
		▪ East Africa Power Pool Capacity Building Programme.
		▪ Senegal Capacity Building Programme: Phase 1 (Power sector modelling) is completed.[148]
		▪ Senegal Capacity Building Programme: Phase 2 launch is in preparation.[149]
		▪ "Central African Power Pool report: Planning and prospects for renewable power" report.
		▪ Capacity building on the design of renewable energy competitive procurement at the Effective Tendering Course with SRMI and GIZ GET.Transform.
		▪ Rwanda Capacity Building Programme on energy planning.
Infrastructure: regional assessments for integrating renewables (Target 2)		**T-MED** ▪ Advancing T-MED[150] Initiative, together with the European Commission, fostering partnerships and knowledge sharing, to accelerate the deployment of renewable energy and clean technologies in the Mediterranean region.

[147] Supported in part by the European Commission.
[148] Supported in part by the Government of Germany.
[149] Supported in part by the Government of Germany.
[150] Supported in part by the European Commission

		▪ Conducted in-depth analysis of the T-MED initiative, with the European Commission, to develop scenarios, assess clean tech manufacturing potential, and explore innovative financing mechanisms.
		▪ Brief on benefits of the interconnection of ASEAN countries for the integration of renewables.
Nexus: RE in adaptation, technical assistance in clean cooking*[151]; climate adaption*[152] (Target 4)		▪ "Advancing renewables-based clean cooking solutions - Key messages and outcomes" report (March 2024) [Click here].
Skills & institutional capacities: RE curriculum and training activities; Trainings on energy management and audit (Target 6)		▪ **Teaching for Net Zero** – educating the educators for the energy transition[153] o IRENA continues to co-lead the Greening Education Partnership pillar on greening curriculum and contributed to the new global guidance document published in June 2024 by UNESCO [Click here].
		▪ IRENA was a partner of the COP 29 Summer Camp for Educators.
		▪ "Guidelines on skilling Africa's renewable energy workforce and design of national and regional qualification frameworks".[154]
Clean Energy Corridors for Latin America, Northeast Asia, and Sub-Saharan Africa		▪ Fourth (May 2024) and Fifth (July 2024) cohorts of the Eni-IRENA Capacity Building programme in Biofuels [Click here].
		▪ Workshop on *Tripling renewable power by 2030: Translating action on the ground for accelerated renewable energy in Central Asia*, together with the Korea Energy Agency) in Baku, Azerbaijan (16 November 2024) [Click here]. [155]
		▪ "The energy sector of Panama: Climate change adaptation challenges report" (July 2024) [Click here].
Renewables Readiness Assessment (RRA)* (Target 4)		▪ Chad Renewable Readiness Assessment: Experts Consultation Workshop (6-7 March 2024) [Click here].
		▪ Chad Renewable Readiness Assessment: Expert Validation Workshop.
		▪ "Renewable Readiness Assessment: Chad" report.[156]
		▪ Georgia Renewable Readiness Assessment: Experts Consultation Workshop (20-21 March 2024) [Click here].
		▪ Georgia Renewable Readiness Assessment: Expert validation workshop (17 July 2024) [Click here].
		▪ "Renewable Readiness Assessment: Georgia" report.

[151] Supported in part by the Walloon government.
[152] Supported in part by the Government of Denmark.
[153] Supported by the Government of the United Arab Emirates.
[154] Supported by the Government of Denmark.
[155] Supported by the Korea Energy Agency.
[156] Supported by the Walloon government.

		▪ Somalia Renewable Readiness Assessment: Expert Validation Workshop (27-28 February 2024) [Click here].
		▪ "Renewable Readiness Assessment: Somalia report. [157]
		▪ Iraq Renewable Readiness Assessment: Experts Consultation Workshop (28-29 May 2024) [Click here].
		▪ Iraq Renewable Readiness Assessment: Expert Validation Workshop.
		▪ "Renewable Readiness Assessment: Iraq" report.
		▪ Bangladesh Renewables Readiness Assessment: Stakeholder Consultation workshop.
		▪ "Renewables Readiness Assessment: Bangladesh" report.
		▪ Regional Consultation Workshop on Tripling RE and Doubling EE in Latin America[158] (6 November 2024).
		▪ Regional Consultation Workshop on *Tripling Renewables and Doubling Energy Efficiency in MENA*[159] (4 November 2024).
		▪ Workshop on *Morocco Country strategy and action plans to achieve Tripling Renewable Energy Commitment* (December 2024). [160]
		▪ Workshop on *Colombia Country strategy and action plans to achieve Tripling Renewable Energy Commitment* (December 2024). [161]
Power sector planning tools (Flextool, SPLAT, OnSSet*)[162]		**SPLAT** ▪ The SPLAT modeling framework has been developed to run the continental power system model for Africa for the time horizon until 2050. Required workflows have been created to integrate the REMAP electricity demand and hourly demand profiles for each year into SPLAT. The integration of hydrogen framework in SPLAT has been successful.
		○ The soft linking between SPLAT, FlexTool and OnSSET has been tested successfully for the Planned Energy Scenario (PES).
		○ Working towards resolving the optimization-related challenge associated with increasing model size and recovering access to the Gurobi cloud solver for running the ambitious RETO scenarios
		▪ SPLAT helpline for regional partners: on demand support for AUDA-NEPAD and other African partners using SPLAT for energy planning in context of African Continental Power Systems Masterplan (CMP) project supported by IRENA as

[157] Supported in part by the Government of the United Arab Emirates.
[158] Supported in part by the Government of Germany.
[159] Supported in part by the Government of Germany.
[160] Supported in part by the Government of Germany
[161] Supported in part by the Government of Germany
[162] Supported in part by the European Commission.

		official modelling partner.
		▪ "Advancements in continental power system planning for Africa" report (July 2024) [Click here].
		▪ "African Renewable Electricity Supply options (AfRES) for Energy Modelling Database: Utility Scale Solar PV" report documenting SPLAT models.
		▪ "African Renewable Electricity Supply options (AfRES) for Energy Modelling Database: Onshore Wind" report documenting SPLAT models
		▪ Development of a comprehensive electricity access model for all African countries, utilizing the OnSSET modelling framework to assess the medium to long-term least-cost electricity provision across RETO Africa scenarios.
		▪ IRENA West Africa Electrification Platform developed for Burkina Faso, Mali, Nigeria and Senegal launched [Click here].[163]
		▪ Report on the IRENA West Africa Electrification Platform.
		▪ Development of FlexTool modelling framework to assess the flexibility of Africa's future power system, within the context of the Regional Energy Transition Outlook (RETO) Africa.
		▪ Data collection assessing flexibility with FlexTool in South America undertaken in cooperation with Enel (May 2024) [Click here].

V. Facilitating Projects and Mobilising Capital

Core assessed and core non-assessed resources (in USD thousands): USD 4,156. Key activities supported by additional voluntary contributions are footnoted.

Objective: Facilitate the development of project pipelines and channel investment toward renewables-based energy systems in developing countries.

Key activities	Status	Description
Climate Investment Platform (CIP)[164]: Project information documents * (Target 20)		▪ 497 projects submitted on the CIP of which 109 projects have been supported.
		▪ 14 of the supported projects gained interest from financing partners, and five projects achieved financial close.
		▪ CIP engaged 89 financing partners.
		▪ Additional derisking support mobilised in the form of insurance and guarantees from six providers.

[163] Supported by the Walloon government.

[164] Supported in part by the Government of Denmark

		▪ Five projects have reached financial close.
Energy Transition Accelerator Financing (ETAF)[165]*: Projects recommended to ETAF partners (Target 15)		▪ 82 projects have been submitted through ETAF Platform, 22 of these have been presented to the ETAF Partners for their funding considerations.
		▪ 15 of the projects (worth USD 3.4 billion) received initial interest from Partners.
		Final ETAF operational manual has been shared with partners.
		▪ USD 4.15 billion mobilised as soft commitments from 11 ETAF partners.
		▪ Mobilised USD 1 million towards supporting project pipeline development.
		▪ Additional derisking support mobilised from three insurance and guarantee providers.
		▪ Co-financing via three projects that have reached financial close for USD 1 billion.
Global Atlas for Renewable Energy: Platform maintenance and application[166]		▪ Global Atlas for Renewable Energy – version 4.2.
		▪ Maintenance of the Global Atlas for Renewable Energy platform – infrastructure and geoserver.
		▪ Update of the renewable energy resource and ancillary datasets from data providers (Members, international institutions and private sectors – TheWindPower, TU-Delft).
		▪ Bioenergy simulator platform – version 2.0.
		▪ Maintenance of the Bioenergy simulator – infrastructure and geoserver.
		▪ Update of the Bioenergy simulator methodology – development and implementation.
		▪ "The Global Atlas for Renewable Energy Initiative: 10+ years in the making" report (May 2024) [Click here].
		▪ "The Global Atlas for Renewable Energy: A decade in the making" report (March 2024) [Click here].
		▪ Presentation on the Global Atlas for Renewable Energy Initiative o ESA's Blue Economy project: Marine Renewable Energies (04 September 2024). o 3rd meeting of the WMO SERCOM Study Group on Renewable Energy Transition (SG-RENE) (November 2024, 26 participants).
		▪ Support IRENA analysis on renewable potential assessment: o Global techno-economic potential of geothermal, hydro, solar and wind [Section 2.2] o Solar and wind techno-economic potential

[165] Supported in part by OPEC Fund for International Development
[166] Supported in part by the Government of Denmark and the Government of Germany.

		for small Islands [Sections 3.1-3.3]. o Solar and wind atlases for the Republic of Iraq.
Capacity building and technical assistance on climate investment; project finance; procurement; and PPA*[167] (Target 2)		▪ Capacity building workshop on renewable energy project development for seven Pacific SIDS.
		▪ Capacity building conducted for developers from the seven APRA member countries ahead of the APRA Investment Forum.
		▪ Provision of support for financial documentation review for ETAF and CIP project submissions.
		▪ Project facilitation brochure guiding stakeholders on current work undertaken and results.
		▪ Expert insights on "Five pillars that determine commercial renewables projects' bankability" (April 2024) [Click here].
		▪ Three Webinars on ETAF Project Facilitation: o Coalition for Action members o Officials from the Government of Iraq upon request. o Officials from the Government of Ukraine upon request.
Regional Investment Forums (Target 2)		▪ COP29 Energy Transition Investment Forum for Central Asia, Baku, Azerbaijan (15-16 November 2024) [Click here].
		▪ West Africa Investment Forum (Abuja Nigeria).
Pre-feasibility, site and zoning assessments; and resource mapping (SolarCity simulator)[168]* (Target 2)		▪ Development of pre-feasibility analysis for floating solar photovoltaic and offshore wind technologies – methodology and report.[169]
		▪ Pre-feasibility analysis for 5 onshore wind sites earmarked for project development in Montserrat – assessment and report. [43]
		▪ Pre-feasibility analysis for 12 onshore solar sites earmarked for project development in Angola – assessment and report.
		▪ "Investment opportunities for utility-scale solar and wind areas, Mali" report (August 2024) [Click here].
		▪ "Investment opportunities for utility-scale solar and wind areas, El Salvador" report (May 2024) [Click here].
		▪ "Investment opportunities for utility-scale solar and wind areas, Georgia" report.
		▪ IRENA SolarCity simulator – add new functionalities and features.
		▪ Maintenance of the SolarCity simulator – infrastructure and geoserver.

[167] Supported in part by the Government of Denmark.
[168] Supported in part by the Government of Germany
[169] Supported in part by the Government of Denmark.

		▪ Three SolarCity simulators for Belize – Belize City [Click here], San Pedro [Click here], and San Ignacio [Click here].
		▪ A SolarCity simulator for Guyana – Georgetown [Click here].
		▪ Three SolarCity simulators for DR Congo – Kinshasa, Mbandaka, and Kananga.[170]
		▪ Three SolarCity simulators for Sao Tome and Principe – Principe, Bela, and Trindade.
		▪ Capacity building on rooftop solar PV potential and the use of the SolarCity simulator o Workshop for Solomon Islands high-level government representatives (6-8 February 2024, 20 participants) [Click here].[171] o Caribbean Regional Consultative Workshop on SIDS Lighthouses Initiative Progress Indicators and Impact Measures (26 February- 1 March 2024, 50 participants) [Click here]. o Workshop for Mauritius (18 March 2024, 68 participants) o Workshop for Burkina Faso (28 March 2024, 54 participants).[172] o Workshop for Belize (24 April 2024, 63 participants).[173] o Workshop for Comoros (8 May 2024, 22 participants). o Workshop for Guyana (25 November 2024, 32 participants).
		▪ Capacity building on identifying investment opportunities for utility-scale solar and wind areas: methodology and results. ▪
		▪ Workshop for Georgia high-level government representatives (17 July 2024, 80 participants) [Click here].

ADDITIONAL OUTPUTS		
Strategic Management		
Key Activities	**Status**	**Description**
Participation in New York Liaison Office		▪ Co-organised the first celebration of the International Day on Clean Energy at the United Nations with the organisation of a Panel Discussion on the theme: "Building a Sustainable Future: Renewables for Climate Action and Sustainable Development" [Click here].

[170] Supported in part by the Government of Japan.
[171] Supported in part by the Government of Denmark.
[172] Supported in part by the Government of Japan.
[173] Supported in part by the Government of Denmark.

		▪ Coordination of IRENA participation in the negotiations on the Pact of the Future adopted at the Summit of the Future (22-23 September 2024).
		▪ Coordination of IRENA participation in the negotiations on the outcome of the 4th International Conference on Small Island Developing States, held in Antigua and Barbuda on 27-30 May 2024 and facilitation of IRENA's engagement in the Summit.
		▪ Facilitation of the engagement of UN high-level stakeholders in the Fourteenth session of the IRENA Assembly.
		▪ Engagement with the New York-based Permanent Missions to the UN to strengthen IRENA's voice at the UN level.
		▪ Coordinate IRENA inputs to 2024 ECOSOC Forum on Financing for Development.
		▪ Active participation in the Global stocktaking marking the completion of the UN Decade of Sustainable Energy for All to further accelerate the implementation of SDG 7 of the 2030 Agenda for Sustainable Development (April 2024) [Click here].
		▪ Coordination of IRENA participation in the 2024 UN High-level Political Forum on Sustainable Development, including side events.
		▪ Support to the delivery of the IRENA side event at the UNHLPF.
		▪ Coordination of IRENA participation in the 2024 UN High-Level Week.
		▪ Coordination and facilitation of IRENA participation in SDG7 Action Forum.
		▪ Participation in UN side events during the 2024 UN High-level Week.
		▪ Enhancing capacities and improving operations of NYO, in collaboration with Procurement and IT.
		▪ Facilitation of the engagement of UN high-level stakeholders in the Fifteenth session of the IRENA Assembly.
		▪ Coordinate IRENA inputs during negotiations of the United Nations General Assembly Economic and Finance Committee.
Legal Office		The Legal Office provides legal advice and guidance in relation to all areas of activity of the Agency, including among others, institutional and governance matters; preparation of and advise on internal issuances, guidelines and directives; administrative matters and others related to human resources (HR); commercial contracts; collaborative arrangements, agreements and strategic partnerships; communications and publications matters, as further described below.

		Institutional and governance matters: o The Legal Office provides legal support for the preparation and conduct of the meetings of IRENA's governing bodies. In sum, the Legal Office advises Members on the submission of credentials and reviews from a legal perspective the relevant documentation submitted to IRENA's governing bodies. o The Legal Office has been involved in matters concerning the interpretation and application of the Statute of IRENA and the Rules of Procedure of the Assembly and the Council. o Furthermore, the Legal Office has provided legal support as needed in connection to proposals and queries submitted by Members and in relation to the credentials for their Permanent Representatives.
		Administrative and HR matters: o The Legal Office has been closely involved in advising on several HR matters, including on appeals of staff members and the preparation of HR's related Policies and Directives and on amendments to the Staff Regulations and Staff Rules. It has also been involved in the preparation of decisions related to HR matters for their submission to the governing bodies. o It has also been involved in establishing an internal approval process for the representation of IRENA in organs of outside entities.
		Cooperation arrangements and commercial contracts: o The Legal Office has been involved in the conclusion of MoUs, partnership agreements, cooperation agreements, voluntary contributions, among others. o It has also provided advice to the Contract Review Committee and supported the Procurement office when required. o The Legal Office has advised various teams in the negotiation of complex agreements and contracts, including those relevant for IRENA's platforms such as ETAF. Specifically, the Legal Office supported the negotiation and finalisation of the ETAF Joint Declaration with partner institutions and continuously supports the conclusion of collaborative agreements with new partners.
		▪ Communications and ICT: The Legal Office has provided legal support on matters relating to the fraudulent use of IRENA's name and logo. It has also been involved in the preparation of terms of use for IRENA's website and for the website of IRENA's specific platforms.

		▪ Publications: The Legal Office has provided advice on matters related to the use of IRENA's intellectual property and the use of disclaimers. It has also advised on the conclusion of data sharing agreements with third parties for the use of their data in IRENA's publications, and on the conclusion of agreements with other organisations for the preparation of joint publications.
Events Unit		▪ Events and Missions database for internal and external communication maintained.
		▪ Organised 205 events since January 2024, of which 70 were virtual and 135 were physical.
		▪ Student Leaders Programme, part of Growth@IRENA programme: Around 500 students applied out of which 70 students were engaged during IRENA's virtual spring cohort that expanded to 6 weeks of courses and around 370 students applied and out of which 80 students were engaged during IRENA's in-person summer cohort, held in person in Abu Dhabi, that expanded for 5 weeks of courses.
		▪ Outreach activities with the UAE, including partnering with The World Future Energy Summit (WFES), Abu Dhabi Global Markets (ADGM), Abu Dhabi Creative Hub, Dubai Cares, Dubai Electricity & Water Authority (DEWA) Innovation Centre and Youth Arab Centre, Emirates Development Bank (EDB), UAE Humanitarian Council, Zayed foundation, Khalifa foundation, Emirates Foundation, Sharjah University, Abu Dhabi University, Khalifa University, Trends Research and Advisory, International Institute for Cultural Diplomacy, Ministry of Energy and Infrastructure, Annual Investment Meeting Congress, Future Sustainability Forum in collaboration with DIFC, and Emirates Environment Foundation.
		▪ Continue to maintain the Fund for Developing Country Representatives (FDCR) and supported the participation of 66 eligible LDC and SIDS Members that attended the 14th IRENA Assembly and related meetings and a total of 8 eligible members that attended the 27th and 28th Session of IRENA Council meeting.
Diversification of resource base		▪ Contributions concluded in 2024: o European Commission (Clean Tech Plan) o Germany (GIZ) (Senegal - CMP) o Germany (BMWK – Various) o Iceland (Geothermal support) o Italy (Italy G7 Presidency and Youth support) o Japan (Various projects) o Rep. of Korea (Workshop on Tripling renewable power by 2030) o Norway (Various) o United Arab Emirates (AFID, COP29, UAE UNFCCC submission, NDC 3.0, IRENA Warehouse, UNEZA, FDCR). o United Kingdom (Breakthrough Agenda support) o OPEC Fund for International Development (ETAF support)

Monitoring and evaluation system		▪ Development of an enhanced Monitoring and Evaluation (M&E) system.
Programmatic reports to the Council and Assembly		27th meeting of the IRENA Council: ▪ "Progress Report of the Director-General on the Implementation of the Work Programme and Budget for 2024-2025".
		28th meeting of the IRENA Council: ▪ Annual Report of the Director-General on the Implementation of the Work Programme and Budget for 2024-2025".
		Fifteenth session of the IRENA Assembly: ▪ Annual Report of the Director-General on the Implementation of the Work Programme and Budget for 2024-2025".

Enabling IRENA delivery		
Outputs	**Status**	**Description**
Upgrades and enhancements to the IRENA website, platforms, and other IT systems.		▪ New Utilities for Net Zero Alliance (UNEZA) website developed and launched.
		▪ New APRA website developed and launched.
		▪ Google Analytics G4 upgrade for website performance tracking finalized and operational.
		▪ ERP quarterly upgrades. Q1, Q2, Q3 upgrades completed and Q4 upgrade ongoing.
		▪ Enhancements to the IRENA website.
		▪ Continuous support to hybrid and virtual events, including collaborative framework and governing bodies meetings.
		▪ Enhancements in IT systems supporting administrative processes and reporting. New reports developed in ERP.
		▪ Enhancements in IT tools for internal communication and IT infrastructure in HQ. Network upgrade at HQ implemented.
		▪ Development of a framework for the use of Artificial Intelligence in the Agency.
Human resources		▪ 19 new staff appointments and internal movements and 5 new Associate Professionals.
		▪ Reclassification review of Terms of Reference.
		Update of HR Policy Manual o Directives in draft on Individual Consultants.
		o Directives on Recruitment and Performance Management.

Efficient budget services		▪ Support across the Agency and to external clients in administration of core funds and voluntary contributions.
		▪ Regular internal reporting, as well as preparation of reports to donors and governing bodies.
Delivery of efficient financial services		▪ IRENA and IRENA SPF 2023 Audited Annual Financial Statements submitted to 27th Council.
		▪ Responsible for managing the financial resources of the Agency, including financial reporting cash management, maintaining internal controls and ensuring financial compliance.
Support to the Provident Fund operations		▪ Annual members' meeting (June 2024).
Efficient procurement services		▪ Maintain open, fair, transparent, and competitive procurement bidding process in line with relevant regulations and policies.
		▪ Develop a process of procurement operation through the establishment of 31 Long-Term Agreements (LTA) to allow for an effective and efficient response and implementation of work programme.
		▪ Continue searching the market aggressively to widen the supplier's database to accomplish best value for money. 52 vendors have been contracted during the reporting period and more than 1000 vendors expressed their interest to bid for business with IRENA. 913 vendors have been registered in procurement database.
Effective general and travel services		▪ Effective general and travel services.
		▪ Administration support, enhancement of Facility Management, and other services e.g., Health and Safety.
		▪ Travel logistic services management for Workshops and Travel on missions.