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# Report of the Director-General

# Work Programme and Budget for 2022-2023

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## Introduction

1. On 4 April 2021, IRENA marked the tenth year of its formal existence. A decade ago, some 70 countries established this platform for international cooperation, convinced of the need for rapid and widespread deployment of renewable energy. Today, 166 Members and 18 states at various stages of accession[1] make IRENA a global powerhouse with, attesting to the high relevance of its mandate. The world is on a quest for sustainable solutions to meet growing energy needs while averting the effects of climate change, and renewable energy is central to this agenda.

2. Moreover, the ongoing pandemic and its wide-ranging consequences brought to the fore less-visible vulnerabilities of the current energy system and its immense impact on many facets of daily life. The intertwined nature of fossil fuels with the global economy and the resulting fragility became apparent when demand stalled due to the economic downturn. At the same time, the health crisis accentuated the unacceptable fact that billions of people live in energy poverty, rendering services like health, water, and information technology out of reach. The imperative of the transformation of the current energy system to one that is resilient, inclusive, and sustainable has never been more apparent.

3. There are less than ten years left to fulfil the promise of the 2030 Agenda for Sustainable Development and shift to an energy path aligned with the goals of the Paris Agreement on climate change. The developments in the energy sector have an oversized impact on the achievements of these international agreements, so there is a new level of pressure to act. The recent UN High Level Dialogue on Energy[2] showed that the energy revolution is underway in many countries, cities, communities, and businesses around the world. But it also showed that the pace is inadequate, most notably for over 750 million people who still live without electricity and the opportunities it provides. It is also woefully slow for the unfolding climate crisis. According to the sixth assessment report of the Intergovernmental Panel on Climate Change (IPCC)[3], extreme weather is affecting every part of the planet, the atmosphere and seas are warming at rates unprecedented in human history, and some of the consequences are already irrevocable. The report states that the time to act is nearly gone but, crucially, it is not gone yet.

4. This was the message of IRENA's first World Energy Transitions Outlook (WETO)[4]. With the stark warning that we are running out of time, WETO outlines the fastest path to emission reduction, consistent with the 1.5-degree goal. The Outlook prioritises existing solutions and those with the most chance to become viable in the coming years. It positions electrification and efficiency as primary drivers, enabled by renewable power, green hydrogen, and sustainable modern bioenergy.

5. Trends observed over the past decade show that WETO's vision of the energy future is technically possible, economically viable and socially desirable. First, the costs of renewable technologies plummeted to the point that new fossil-based electricity is no longer an attractive option. Renewable production is soaring, growing far more quickly than many predicted. Renewable power capacity has already reached almost 2,800 GW in 2020[5] and the variety of policy, market and application options is increasing. Mainstream projections envisage a profound impact not only on the energy system but also in the wider economy, based on a strong business case, rapid pace of innovation and compelling socio-economic rationale.

[1] As at 26 September 2021.
[2] More information here.
[3] Available here.
[4] Available here.
[5] IRENA, Renewable Capacity Statistics 2021.

6. Second, the progress in the power sector is spilling over to end-uses allowing a re-imagining of possibilities with the abundance of renewable options at hand. For instance, electrification of the transport sector has already become a part of many government plans, and companies are making corresponding commitments, with clear timelines for the end of the internal combustion engines. Moreover, the policy focus on green hydrogen is changing the timeline for decarbonisation of hard-to-abate sectors, which until recently lacked realistic options.

7. Third, the commitments to net-zero strategies by countries in all corners of the world is creating unprecedented political momentum for a transformative change. Combined, these developments mean that every part of the energy system will be affected by changes across the global economy, developments in policy, and continuous technological advancements. It is difficult to know what a coherent and swift transition to a new energy system could be, as systemic innovation and policy developments are opening new avenues for progress. It is certain however that the ongoing changes are transformational and have already profoundly affected the system that has evolved over the past century.

8. The stakes cannot be higher, and the sense of urgency is palpable. Renewables-based energy transitions can be a powerful equaliser in a world where disparities and gaps between and within communities, nations and regions continue to widen. The science is clear on what lies ahead, and policy commitments and technology developments are starting to move markets and investments. What happens in the coming few years will define our shared future. The pace of energy transition will determine the ability to achieve the 2030 Agenda for Sustainable Development and secure a fighting chance for a 1.5-degree world. The question now is whether this transition will occur fast enough, and do so in a just, inclusive, and equitable manner.

**Changing Energy Landscape**

9. The ongoing energy transition is unprecedented due to its scale and the profound impact on the established socio-economic, technological and geopolitical trends around the world. During preparations of the Proposed Work Programme and Budget for 2022-2023, IRENA sought feedback from the Membership on the priorities for the coming biennium[6]. Reflecting the global nature of the Agency, Member feedback showed that a diverse set of objectives, including development imperatives, sustainable growth, climate change, energy security, energy poverty and local pollution considerations, drive the energy transitions. This diversity of priorities underlines the need for focused and concerted action in the near-term and a shared understanding of the long-term vision.

10. IRENA's Medium-term-Strategy (MTS) 2018-2022[7] captures these priorities and lays out the role for the Agency in this dynamic environment. It requests the Agency "*to play a leading role in the ongoing transformation of the global energy systems as a centre of excellence for knowledge and innovation,a global voice of renewable energy, a network hub for all stakeholders and a source of advice and support for countries*". The MTS objectives call upon the Agency to provide authoritative knowledge, analysis and data on renewables-based energy transformation and an inclusive platform for all stakeholders to foster action and impact on the ground. The MTS also prioritises support for country-level decision-making to "*accelerate the renewables-based transformation of their energy systems, advance strategies to decrease global emissions and achieve sustainable development*". This clarity of purpose has enabled the Agency to act with confidence since the adoption of the MTS in 2018, including during the particularly tumultuous period of the global pandemic.

[6] All Members were invited to provide written input in March 2021, with seven responses received. Programmatic Framework was also discussed at the 21st meeting of the Council in May 2021.
[7] A/8/11 of 13 January 2018.

11. In 2020, IRENA's institutional direction was refined to bring, among other things, a closer relationship between the Agency's wealth of knowledge and country-level decision making. This new approach also prioritised partnerships, especially those that could be leveraged for a greater impact on the ground and bring real-life change. In this regard, the relationship with the private sector also grew in importance. This relationship was particularly relevant given the fact that over 80 per cent of investments in the energy transition will have to come from the private sector.

12. The health crisis diminished the ability to fully implement the envisaged plans; however, the global slowdown also provided an unexpected space for reflection. This was the case not only for IRENA but also for the global energy community. A new outlook emerged on how the energy transition could unfold, what the next frontiers might be, and how renewables can make a difference. In contrast to being a near-lone voice of renewables only a few years ago, IRENA's agenda has now become mainstream, with a great number of players entering the space. This is a welcome development and a necessary one for the achievement of the set goals. But they also underscore that the Agency, yet again, must be a step ahead in its thought leadership, with an agile and impact-driven programme and innovative manner of working.

13. While the Agency is no longer new, several elements enable it to assertively lead the next stage of the global energy transitions. Unlike many international organisations, IRENA does not have legacy mandates, but a clear mission that is fully aligned with the 2030 Agenda for Sustainable Development and the Paris Agreement. The Agency's global membership gives it a unique ability – and a responsibility – to consider the future energy system from all angles, in support of diverse priorities, abilities and needs of its Members. IRENA today is a melting pot of countries ranging from the most developed through the blossoming emerging economies to small islands fighting for survival. What binds them together within IRENA is the forward-looking mandate and clear purpose to drive the renewables-based energy transition worldwide.

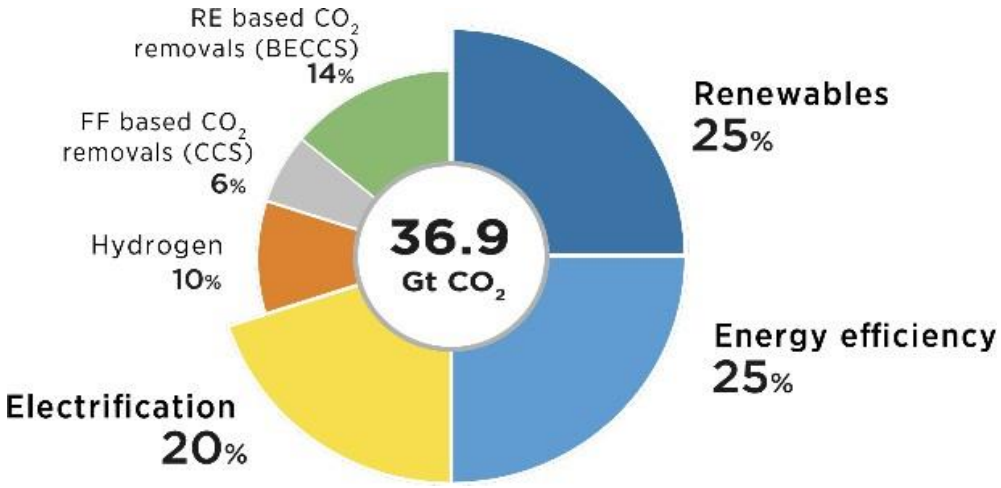
14. A decade ago, the prevailing narrative on renewables was that of high costs, unreliability and uncertain futures. Today, renewable energy is a backbone of global development and climate strategy. These developments are a reminder that IRENA is not just another international organisation, but a symbol of confidence that foresighted decisions and collective action can bring solutions for the future. Its work must now adapt to the new circumstances and respond to evolving dynamics, anticipate Members' needs and drive change on the ground.

**Programmatic Direction**

15. The energy transition agenda is extensive, so it is important that IRENA programmatic activities remain focused on the medium and long-term objectives while tackling the necessary short-term steps. It is for that reason that the Work Programme will be guided by the pathway outlined in WETO. IRENA's Outlook shows that over 90 per cent of the solutions that will secure a successful outcome in 2050 involve renewable energy through direct supply, electrification, energy efficiency, green hydrogen and bioenergy combined with carbon capture and storage (BECCS). Importantly, it also shows that aggressive deployment of renewables is the only avenue that will enable the world to achieve the Sustainable Development Goal on Energy (SDG7) by 2030, while making the necessary emission reductions. In fact, the UN HLDE energy roadmap recommends that renewable capacity reaches at least 8,000 GW by 2030.[8]

[8] United Nations 2021, *Theme Report on Energy Transition*. Estimate based on IRENA's World Energy Transitions Outlook.

**Figure 1: Renewables, efficiency and electrification will dominate the energy transition**



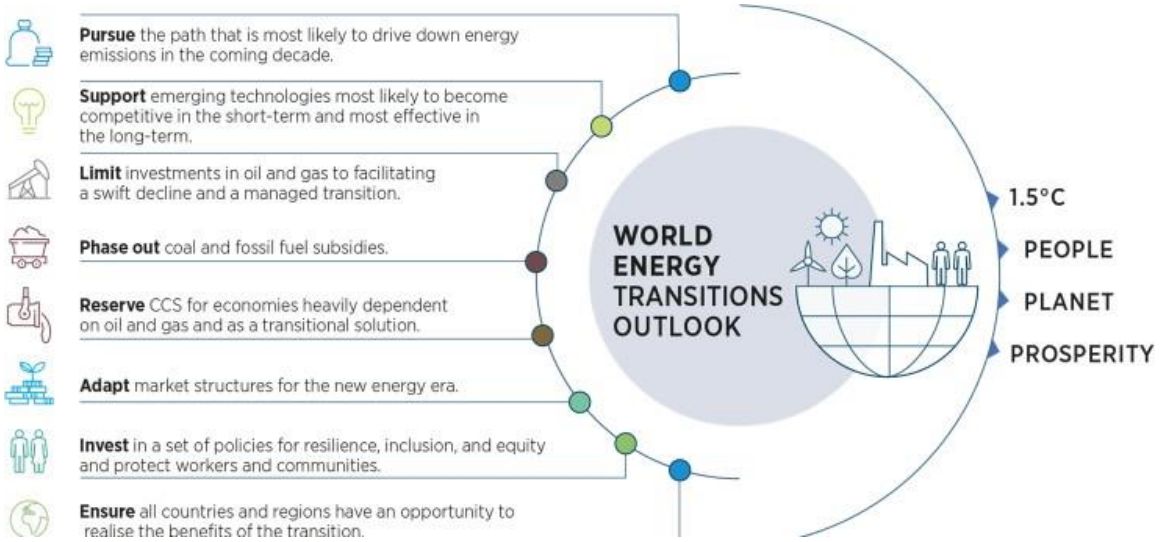

**Source**: IRENA, *World Energy Transitions Outlook*, 2021

16. WETO also shows that a transformed energy sector will have 122 million jobs in 2050, from less than 60 million today. Renewable energy will be almost one third of these, continuing the rapid growth from 11.5 million jobs in 2019. But WETO also clearly shows this is not a simple shift, but a process that requires careful planning and management not only in the confines of the energy sector but broader economy and society. It also highlights that a holistic global policy framework is needed to bring countries together to commit to a just transition that leaves no one behind and strengthens the international flow of finance, capacity and technologies.

17. WETO finds that energy transition investments will have to increase by 30 per cent over planned investment to a total of USD 131 trillion between now and 2050. This also includes sharp adjustments in capital flows and a reorientation of investments to align energy with a positive economic and environmental trajectory. Today, some USD 2 trillion is invested in the energy sector. This amount needs to double, so the coming years will be critical for the development of enabling frameworks and policies to facilitate private investment in the necessary infrastructure, renewables and efficiency measures. Most of all, such investment must be channeled to developing countries, especially those where the growth of renewables has been lagging.

18. IRENA must play an active role in realising the pathway depicted in WETO. Therefore, all programmatic activities align with its findings and recommendations to ensure IRENA's work contributes to the achievement of global commitments enshrined in the 2030 Agenda and the Paris Agreement. This approach to programming helped clarify some of the directional shifts that are necessary in the coming biennium.

**Figure 2: Guiding framework of WETO theory of change**




**Source**: IRENA, *World Energy Transitions Outlook*, 2021

19. In line with the WETO technology avenues, the Agency will firmly focus on its mandate of accelerating the deployment of renewable energy. Significant progress has been made in the power sector, but deployment in **end-uses** remains limited. Building on its excellence in renewable energy, IRENA will focus on solutions in transport, buildings and industry. This will include continuous work on green hydrogen, which is poised to play an important role in these sectors. IRENA will work along the whole life-cycle of renewable technologies to tackle issues spanning from critical materials through end-of-life and circular economy.

20. While the energy transition was traditionally linked to climate mitigation impact, it is increasingly clear that it must contribute to **resilience and adaptation** as well. During the height of the lockdown and the economic downturn in 2020, renewables showed remarkable resilience. The crisis was a test case for renewables-based electricity, debunking myths around reliability of systems with high shares of wind and solar. On the other hand, climate impacts and extreme weather events accentuate the need for the energy transition to contribute toward climate adaptation as well. IRENA will evolve these important streams of work to account for risks and promote benefits, also in the NDC implementation.

21. WETO also highlights that the energy transition goes well beyond technology and brings deep structural changes that will greatly affect economies and societies. IRENA will continue to capture an increasingly comprehensive picture of these changes beyond the confines of the energy sector. This will include the impacts across different elements of the 2030 Agenda, including **agri-food chain, health, education, water, and gender**, among others.

22. Programmatic activities will continue to span the analytical, empirical, and country support, underpinned by partnerships and collaborative arrangements. Most of all, they will be measured by their impact on real-life and value-add at the local, regional, and global levels. This programme translates WETO into meaningful programmatic activities to fill knowledge gaps, help shape the immediate steps for just and inclusive transitions and drive investment at scale toward a renewables-based energy system worldwide.

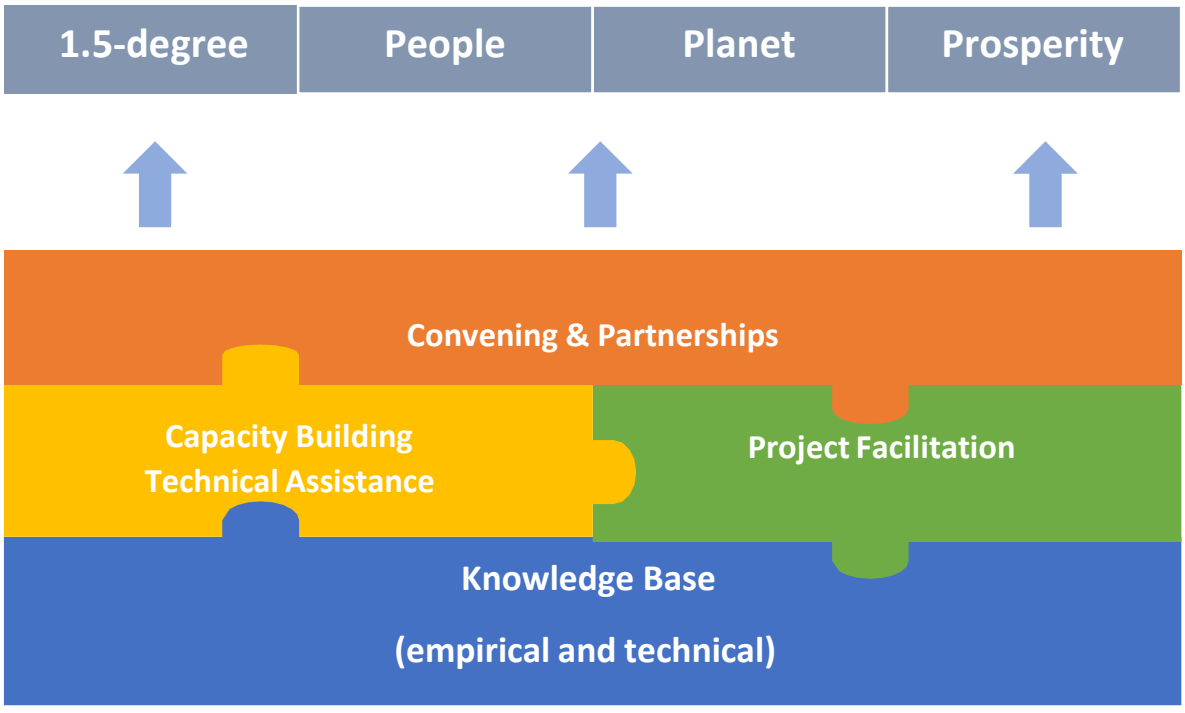
23. IRENA has long prioritised a regional approach to energy transitions to facilitate the deployment of a diverse mix of renewable energy sources, overcome market barriers and increase security of supply. Regional cooperation remains a crucial element for bringing about the necessary flexibilities, efficiencies, and economies of scale for renewables-based transitions. Adopting an integrated approach to transboundary issues such as energy trade, regulatory frameworks and policies, and regional infrastructure allows countries to leverage regional

resources and maximise local capabilities. Such a regional framework can also promote competitiveness in a climate-safe global economy and support emerging value chains such as green hydrogen. IRENA will therefore translate WETO into **Regional Energy Transitions Outlooks (RETOs)** to provide coherent technology, policy and socio-economic frameworks for impactful investment that creates jobs, industrial value additions, and inclusive and healthy societies.

24. The ongoing health crisis has provided a foreshadowing of the climate crisis. The impacts of both know no borders: they both put the poor and vulnerable at greater risk; and both demand government action on an unprecedented scale. Policy makers have different energy options available to them, so it is imperative to show how investment in the renewables-based transition can contribute to long-term prosperity, resilience, and well-being. IRENA will promote **a just, equitable and inclusive energy transition** that brings a structural change of empowerment, and effectively manages adverse impacts. Programmatic activities will also focus on clarifying the impact on different transition options, to help countries make forward-looking, safe and strategic choices.

25. While many countries are making major strides in transitioning toward renewable systems, significant barriers to investment at scale remain, particularly in developing countries. These barriers are well known; nevertheless, they persist. Overcoming them will be the single most crucial factor in the ability of developing countries to transform their energy systems at the necessary pace and rapidly reduce energy poverty that hinders sustainable livelihoods and progress. IRENA will therefore continue to facilitate **a pipeline of bankable projects rooted in a stable policy and regulatory framework** and supported by de-risking mechanisms. New investment and financing instruments are coming on-stream, and IRENA will help channel these resources toward renewable energy. Countries, companies and financing institutions will be connected through the Climate Investment Platform (CIP)[9], guided by the Regional Energy Transitions Outlooks and supported by capacity building and matchmaking activities.

**Figure 3: IRENA's mutually reinforcing activities are guided by WETO**




[9] More information available here.

**Institutional Considerations**

26. In today's challenging global context where varied agendas are competing for limited resources, providing added value is of utmost importance. The clarity of IRENA's purpose, timeliness of its mandate and global membership give the Agency a privileged space in the institutional energy landscape. Sustaining and increasing Members' engagement is a defining prerequisite for the Agency's success, and the generosity of their input will set IRENA apart in impact and effectiveness.

27. Therefore, Member participation will continue to be mainstreamed in the programmatic work. In the current biennium, several Collaborative Frameworks were established to promote engagement, facilitate peer-to-peer exchange and enrich programmatic output. These will be further evolved to seamlessly tap into the abundance of knowledge that exists in IRENA's Membership, foster the sense of ownership, and ensure timeliness and relevance of the programmatic output. IRENA will also harness its Governing Body meetings and the Global High-Level Forum on Energy Transition to promote international cooperation and multilateralism.

28. IRENA's significant intellectual capital accumulated through analytical work and interaction with countries, and growing credibility and authority makes it an asset in the global energy discourse. It is imperative however to remain alert and continuously evolve given the dynamisms of the sector. IRENA will harness its convening power to promote international cooperation in its areas of comparative advantage. Participatory approach and agile programming underpinned by analytical rigour will remain key traits. Here, the Agency will continue to maintain strong links with academia and research entities to remain at the cutting edge of the latest developments.

29. Given its near-universal Membership, IRENA must be efficient in organising its work to be able to serve all Members. Working at regional levels has proven to be an effective approach, especially given the importance of cross-border collaboration for successful energy transitions. Data and analyses will follow the same patterns, to support informed and timely policy considerations and decision-making. The regional approach will also help identify gaps and needs for the creation of enabling frameworks and attracting investments at scale. It is of note that the mid-term external evaluation of the Medium-term Strategy 2018-2022 also identified the regional approach as one of IRENA's comparative advantages.

30. In line with the ongoing practice, IRENA will foster partnerships with international organisations and other entities, especially those who can provide the link to implementation. This includes a close and growing cooperation with the private sector, whose ingenuity and resources are critical for the success of the development and climate agenda. IRENA will look for opportunities for collaborative projects with all partners to augment the programmatic output, such as collaboration in initiatives, events and strategies.

31. All programmatic activities will be underpinned by a sustained and targeted communication strategy. The Agency has made significant strides in improving its communication and outreach, but it is evident that more must be done, especially at this critical junction in the global energy transition. Therefore, communication will be a high priority for the upcoming biennium.

32. IRENA has significantly scaled up its efforts to capture and measure the impacts of programmatic activities. A monitoring and evaluation system has been developed and will be gradually mainstreamed in all facets of the Agency's work. This system is multifaceted and includes both internal systems for data collection and analyses, and provisions for external review and assessment of different projects including those supported by voluntary contributions.

**Resources**

33. IRENA's biennial budget comprises core assessed budget, and core non-assessedcontributions from the UAE as a host of IRENA Headquarters and Germany as a host of IRENA's Innovation and Technology Centre (IITC). The core assessed budget, amounting to USD 44.778 million for the biennium, reflects USD 44.461 million approved for 2020-2021 biennium and USD 317 thousand assessed contributions from new Members who joined since 2020. The United Arab Emirates[10] contribution accounts for USD 9.12 million (USD 5 million for IRENA operations support, USD 0.92 for information technology infrastructure and USD 3.2 million for Governing Body meetings). Core non-assessed contribution from Germany includes USD 10.89 million for the IITC.

34. Members emphasised that their ambition for the Agency cannot be met through core resources alone. Dedicated efforts in this regard have resulted in securing multi-year voluntary contributions from several donors including Denmark, the European Commission, and Germany. Several additional agreements are in preparation and pledges for support were also received from several other Members. The proposed Work Programme therefore integrates the activities supported by already-secured voluntary contributions to promote coherent programmatic delivery and transparency in resource availability.

35. Over the years, Members encouraged a diversification of resource base including the establishment of a "Renewables Acceleration Fund".[11] IRENA will therefore pursue such a multi-donor trust fund in line with the applicable regulations[12] to tap into diverse funding sources. Such a fund would help secure a multi-year resource base in support of successive programmatic cycles, aligned with the MTS priorities and direction. The IRENA Statute envisages that the Agency's budget would comprise three streams of funding: mandatory contributions of its Members, based on the scale of assessments of the United Nations; voluntary contributions; and other possible sources. To date, resources were largely derived from core and voluntary contributions from Members, with limited exploration of the "*other possible sources*". The establishment of the Renewables Acceleration Fund will seek to expand the range of funding sources, including international organisations, philanthropies, and the private sector.

10 The United Arab Emirates also provides housing allowance averaging USD 2.2 million biennially.

11 A/8/4 Work Programme and Budget 2018-2019, para 22

12 IRENA Financial Regulation 8.4

## I. Centre of Excellence for Energy Transformation

*Objective: Empower effective policy and decision-making by providing authoritative knowledge and analysis on renewables-based energy transformation at global, national and sectoral levels.*

36. Over the years, IRENA has become a trusted source of transparent data and analyses, widely used by Members, international organisations, the private sector, media outlets, academia and others. This authoritative knowledge base also serves as the basis for the Agency's knowledge products and advisory and support activities and facilitates work on the ground. This empirical and analytical work remains core to the Agency's work. As the global energy transition accelerated, IRENA solidified its space in the global energy discourse with several flagship products.

37. The annual World Energy Transitions Outlook (WETO) – comprising technology, policy, socio-economic and finance pathways – will remain IRENA's primary flagship product. It willcontinue to refine the pathway to 2050 with a greater focus on the priority actions to 2030. The integrated nature of options proposed in WETO offers a pathway to avoid the climate dilemma while managing synergies and trade-offs and securing a just and inclusive transition. WETO will therefore continue to evaluate the socio-economic footprint of transformation pathways, showing likely effects on GDP, employment and human welfare. It will refine the Energy Transition Welfare Index to inform the ongoing structural shifts. WETO will also include topical deep dives, ranging from hydrogen to access, drawing on different streams of IRENA's analytical work.

38. In the next biennium, this global outlook will be translated into Regional Energy Transitions Outlooks (RETOs) in several regions. RETOs will provide a nuanced analysis tailored to local conditions and aligned with regional mid- and long-term development and climate goals. A great contribution to this work will be the compact with the European Commission announced at the UN High Level Dialogue on Energy, intended to support the development of RETOs in Africa, Europe, and the Latin America and the Caribbean. IRENA will also continue to share insights from its extensive work on the Long-term Scenarios and Planning, especially focused on variable renewables, to provide access to cutting edge analyses and best practice.

39. WETO will be supported by several other flagship analyses. Among these, IRENA's innovation analyses attract high interest of policy makers and stakeholders alike. Viable renewable energy options for the future energy mix are plentiful: from mature geothermal, hydropower, solar, and on-shore wind, to increasingly competitive off-shore wind and CSP technologies, and promising advancements in marine and next generation biofuels. Rapid developments and innovation, such as flexible grid and storage solutions, are providing new avenues for designing the energy system of the future. Many solutions are also emerging in end-use sectors where the share of renewables is still in the nascent stages. IRENA will capture these in a new edition of Innovation Landscape for the Energy Transition and will convene innovators to tap into the latest knowledge and insights on future trends.

40. IRENA's work on geopolitics, triggered by the landmark report released by the Global Commission on the Geopolitics of the Energy Transformation, is increasingly mainstreamed in the work of the Agency. At the request of countries, several areas of interest were identified where deep-dives and policy advice would be welcome. In 2021, this included the report on geopolitics of hydrogen and several convening activities related to the nexus between energy, climate and security. In the coming biennium, IRENA will release a new report on the geopolitical trends stemming from the ongoing transitions. It is envisaged that this report will be updated on a biennial basis, while selected deep dives will continue to be undertaken on topics of interest.

41. IRENA's cost data, collected from real-life projects, helps understand the trends, costs and performance of renewable technologies. This work will continue with an increased focus on regional assessments to help understand cost drivers and patterns and inform RETOs. Efforts will be made to provide regular insights on the costs and performance of energy transition technologies, including the end-use, given their importance for efficient energy transitions. IRENA will also analyse global renewable energy investment trends, based on its datasets which will be updated on an annual basis.

42. Sustained market growth for renewable energy technologies can only be achieved if expectations regarding performance, safety and durability are met. IRENA's work on quality assurance and standards is filling an important knowledge gap in this regard. The Agency will continue to collect and analyse best practices for the development of quality assurance systems for renewable energy. The resulting information will populate the International Standards and Patents in Renewable Energy (INSPIRE) platform which provides decision-makers, project developers and entrepreneurs a strategic window into renewable energy patents and standards.

43. IRENA's annual statistics is the only source of detailed information on renewable generation, capacity, energy balances and off-grid deployment that is global in scope. These updates will continue to provide country and regional level information to enable monitoring of progress and identification of trends and developments. Complementing this information, IRENA's Global Atlas will be maintained and further developed to enhance the quality and quantity of its maps to provide investment-grade information on renewable potentials. This information is increasingly important as this data is now used to support project facilitation and resource assessments in different geographical settings.

44. IRENA's empirical work will continue to feed into all the tracking of Sustainable Development Goal (SDG) 7 on energy, where IRENA serves as co-custodian together with the International Energy Agency (IEA), the United Nations Statistics Division (UNSD), the World Bank and the World Health Organization (WHO).

45. Progress in the energy transition will be observed through multiple lenses and data collection and analyses will be undertaken with the rigour, accuracy and timeliness that the profoundness and manifold facets of the global energy transition require. It is evident that IRENA's ability to be a centre of excellence for the energy transition hinges upon its ability to attract, develop and retain the right people. The Agency also needs to be a mirror of its Membership in its geographical diversity, and proactive in ensuring gender balance. Significant progress has been made in this regard with the Agency reaching gender parity in its senior echelons, and staff from 68 countries. With the ongoing pandemic, it has been more difficult to both attract and retain qualified staff. Finding innovative solutions to rectify this situation will be a top priority in the coming period.

46. IRENA will continue to maintain high standards of ethics, fairness, transparency, empowerment and accountability, as well as the culture of continuous learning, high performance and managerial excellence. This approach to human capital will promote institutional excellence in the challenging, dynamic environment of the energy frontier and ensure that the Agency is well-prepared to meet the expectations of its Membership. IRENA will also seek to establish closer relationships with other international organisations and related institutions to promote cross-pollination of experiences and knowledge, and support staff career and development.

**OUTPUTS**[13]

Analyses

- World Energy Transitions Outlook (2022 and 2023 editions)*
- Regional Energy Transitions Outlooks (selected regions in Africa, Europe, Latin America)*
- Innovation Landscape for the Energy Transition
- Geopolitics of the Energy Transformation: biennial report on trends*
- Global Landscape of Renewable Energy Finance

Data

- Renewable Energy Capacity and Generation (annual update)
- Power Generation Costs (annual update)
- Costs and Performance of End-use Technologies - selected insights
- Annual Jobs Review
- Patents and Standards Database INSPIRE (annual update)
- Global Atlas updates on renewable potentials
- SDG7 Tracking Report (2022 and 2023 editions)*

Other

- Innovation Week
- Human Resources and Workforce Planning Strategy

**Table 1: Core budgetary requirements - Centre of Excellence for Energy Transformation**

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **14,108** | Proportion of IRENA budget | **22%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **7,970** |
| **Non-staff costs** | | | **6,138** |
| **Non-staff costs by division** | | | |
| IRENA Innovation and Technology Centre | | | 3,721 |
| Knowledge, Policy and Finance Centre | | | 2,054 |
| Administration and Management Services | | | 363 |

[13] Outputs with an asterisk (*) are partially or fully funded by voluntary

## II. Global Voice of Renewables

*Objective: Shape the global discourse on energy transformation by providing relevant, timely, high-quality information and access to data on renewable energy.*

47. The multidimensional nature of the energy transitions reflects the need to achieve simultaneous progress on many fronts. Energy systems across countries are unique to local circumstances, economic structures and socio-economic priorities. The ongoing health and economic crisis due to the pandemic also crystalised the potential blind spots of the energy transitions, exposing gaps and vulnerabilities in provisions of essential services across the world. The crisis showed that energy that is unreliable causes uncertainty; energy that pollutes incapacitates and kills; and energy that is too costly alienates and isolates. Crucially, for the transitions to truly have a positive impact, justice and fairness must be at the heart of planning and action.

48. In all cases, poor energy choices mean unsustainable economies and potentially irreparable damage to the very ecosystems that sustain all. IRENA will therefore spearhead innovative approaches to energy transitions, in line with the immense opportunities identified in WETO, but focused on specific elements of high interest to Members. Considering the extremely challenging times in which governments are making highly consequential decisions, IRENA will be a strong voice of renewables to provide clear messages, timely advice and compelling evidence.

49. Members encouraged the Agency to continue to influence the global energy discourse and promote cross-sectoral thinking through its analytical products. As a result, IRENA will consider topical issues from multiple angles to provide deeper and more nuanced analyses for diverse audiences. Through informed decisions, regions, countries and communities can improve access to energy and scale up renewables cost-effectively, make steady gains in energy efficiency and achieve extraordinary synergies through electrification. If socio-economic needs and aspirations are fulfilled in parallel, such changes are likely to gain acceptance and endure beyond the current urgency to act.

50. High priority will be placed on holistic policy making in the pursuit of a just, inclusive, and systemic transition. IRENA will consider how a renewables-based energy transition can support a structural shift for greater equality, within and between regions and with improved outcomes for all economies and societies. This will include analyses of decentralised solutions to rapidly reduce energy poverty and offer sustainable livelihoods, and participation in the climate-resilient global economy. Responding to a call from Members, IRENA will also address education, skills and occupational requirements to address sectoral shortages and proactively shape the energy workforce of the future. IRENA's pioneering work on gender in energy will be strengthened, along with deeper analyses on renewable solutions for cities and rural communities.

51. The focus will continue to be placed on the integration of variable renewables in the power system, given the ambition and necessity for the deployment of solar and wind technologies. Analyses of renewables in end-use sectors, including transport, buildings and industry remain of high relevance. In this regard, electrification of end-use will be considered from many angles, given its importance in the global decarbonisation effort and the potential for leapfrogging solutions in countries yet to evolve the necessary infrastructure. Equally important will be the need to mitigate stranded assets and pursue repurposing of the existing fossil fuel infrastructure. In the coming biennium, IRENA will particularly focus on the transformation of the gas sector. With the advent of green hydrogen, work will expand across technology, costs and policy along the global and regional value chains. Similarly, sustainable bioeconomy will require deeper analyses in view of its long-term importance.

52. Renewables-based energy transitions will be considered from multiple angles to address technology solutions and innovation, power market and policy design, regulatory frameworks and business and financing solutions, as well as the impact on non-energy sectors. Building on the work to date and based on Member feedback, specific topics will also include environmental impacts and life-cycle assessments, circular economy, critical minerals, storage, digitalisation, cybersecurity and AI, among others.

53. IRENA will step-up proactive communication and outreach as an underpinning of its role as the Global Voice of Renewables. The focus will be placed on strategic leadership to define and disseminate key messages and knowledge products. IRENA will cooperate with communications and social media actors who can help to amplify reach and better target audiences for more significant impact. In this regard, multilingualism will be used as a tool to disseminate knowledge and enable greater participation in programmatic activities. IRENA will also continue to proactively seek to engage with Members to leverage respective capabilities and reach new and diverse audiences.

**OUTPUTS**[14]

Analyses, briefs and technical papers

- Socio-economic Analyses at Country Level* (reports and country briefs)
- Leveraging Local Capabilities (selected technologies)
- Ecosystems for Sustainable Livelihoods*
- Decentralised Renewable Energy Solutions* (policies for mini-grids; solutions for clean cooking)
- Renewable Energy Policies in the Power Sector (decentralised generation; high-risk environments)
- Power Market Design for the Energy Transition
- Renewable Energy Education and Skills*
- Renewable Energy Policies for Cities: localising end-use value chains
- Climate Policy: renewable energy and NDCs*
- Climate Change Adaptation: methodology and country analyses*
- Geopolitics of the Energy Transformation: deep dive on a selected topic*
- Gender and Renewable Energy: tracking global progress
- Energy Transition for End-uses (transport and industry decarbonisation)
- End-use Decarbonisation: guides for policy-making (procurement; heating and cooling;transport; green hydrogen)
- Greening the Gas System*
- Energy Transition and Critical Materials*
- End of Life and Circular Economy* (storage and batteries; solar PV panels)
- Corporate Sourcing of Renewable Energy

Other

- Comprehensive Global Communication Strategy with accessible and multilingual content and information*
- Regional Communication Strategies
- Promotion and use of digital knowledge products and information*

[13] Outputs with an asterisk (*) are partially or fully funded by voluntary

### Table 2: Core budgetary requirements - Global Voice of Renewables

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **9,773** | Proportion of IRENA budget | **15%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **3,697** |
| **Non-staff costs** | | | **6,076** |
| **Non-staff costs by division** | | | |
| Office of the Director-General | | | 2,364 |
| IRENA Innovation and Technology Centre | | | 1,175 |
| Knowledge, Policy and Finance Centre | | | 2,413 |
| Project Facilitation and Support | | | 124 |

## III. Network Hub for Energy Transformation

*Objective: Provide an inclusive platform for all stakeholders to foster action, the convergence of efforts and knowledge sharing for impact on the ground.*

54. With its global membership and wide reach, IRENA is becoming a locus of partnerships, transcending traditional approaches and modes of cooperation. The Agency's access to the vast expertise contained within its Membership gives it a unique comparative advantage that will continue to be proactively accessed and leveraged. Moreover, wide partnerships are starting to translate IRENA's expertise, knowledge and tools into sustained impact on the ground. IRENA will continue to forge partnerships with like-minded entities, and mainstream these into different facets of work to strengthen programmatic output and impact. To maximise impact while using its limited resources, IRENA will proactively work at regional levels, or around issues of common interest. With this approach, IRENA will have sustained, more predictable engagement adapted to the requirements of Members with shared interest and needs. This engagement will also include facilitating peer-to-peer collaboration among Members to enable the exchange of knowledge and experience, and the capturing of best practice. Special effort will be devoted to support Small Island Developing States (SIDS) and Least Developed Countries (LDCs) in line with the global effort to leave no one behind.

55. In the current biennium, IRENA has made a concerted effort to widen the range of partners. Many of these partnerships have already yielded results, for instance in the effort to support the NDC enhancement. IRENA worked closely with the NDC Partnership and UNDP to support countries in preparation for COP 26. This partnership will continue in the upcoming biennium but focused on the implementation of ambitious strategies. While NDCs provide a path to 2030, it is equally important to have a longer-term outlook toward climate neutrality. As the focus on climate action continues, IRENA will promote peer-to-peer technical support through the "Energy Transition Connect" that builds on the long-standing practitioners' network. IRENA will also continue to share insights from its extensive work on the Long-term Energy Scenarios (LTES) and energy planning especially focused on variable renewables, to provide access to cutting edge analyses and best practice. The LTES Network will promote learning and exchange of best practice and grow its reach to experts worldwide.

56. In the 2020-2021 programmatic cycle, IRENA introduced Investment Forums that would be convened at a regional level to gather policy-makers, partner institutions, MDBs, IFIs, the private sector and project developers, among others, to promote the creation of enabling frameworks and stimulate investment flows through matchmaking. It was envisaged that IRENA Investment Forums would be a primary space for the Agency-wide activities, consolidating the currently fragmented engagement with Members. Due to the global pandemic, convening of Forums has been put on hold. They will be rolled out as soon as the health conditions permit, as significant preparatory work has been completed.

57. IRENA's work will continue to be guided by regional action plans and initiatives, developed through iterative processes and wide consultations. These include the Communiqué on the Africa Clean Energy Corridor and the West Africa Clean Energy Corridor (WACEC), the Economic Community of Central African States (ECCAS) Renewable Energy Roadmap, the ASEAN-IRENA Memorandum of Understanding, the Astana Communiqué on Accelerating the Uptake of Renewables in Central Asia, the Abu Dhabi Communiqué on Accelerating Renewable Energy Uptake in Latin America, the Clean Energy Corridor for Central America (CECCA), the Pan-Arab Clean Energy Initiative (PACE), the Abu Dhabi Communiqué on Accelerating the Uptake of Renewables in South East Europe (SEE) and RE Solutions for Mountainous Communities in Hindu Kush Himalayas. Several others are under preparation and will be operationalised in the upcoming programmatic cycle.

58. Regional Energy Transitions Outlooks (RETOs) will play an important role in the regional action agenda, as they become gradually available for different regions. RETOs' findings will also shape Investment Forums to align regional action with a path that promotes resilience, equity and inclusion. In turn, IRENA's capacity building and technical assistance activities will be guided by the priorities and requests identified at Forums. They will also be used to disseminate IRENA knowledge products to ensure their wide diffusion, facilitate the exchange of experiences and peer-to-peer collaboration, and encourage feedback and input.

59. New forms of collaboration that cross traditional boundaries including national, public-private and cross-industry will be required to tackle the challenges ahead. The recently concluded UN High-Level Dialogue on Energy has brought about many action-oriented compacts and it is anticipated that these will be further cemented and broadened at COP 26. IRENA will seek toeffectively leverage these for a greater momentum and real-life impact. The Agency is taking part in a number of compacts[15], including on green hydrogen[16], offshore wind[17], project facilitation[18] and greening of the peacekeeping operations, among others[19]. IRENA will use its convening power, including the Assembly and the Global High-Level Forum on Energy Transition to sustain progress in energy compacts and climate action initiatives, given that these are the only regular intergovernmental meetings dedicated to energy at a global level.

60. It is abundantly clear that the timeline for achievement of universal access to energy is getting shorter. At the same time, there is a global recognition that renewable decentralised solutions are a major enabler of the UN Sustainable Development Agenda. IRENA will therefore increase its focus on both off-grid and decentralised systems for energy access and initiatives that promote cross-sectoral action, most notably in health, food systems, and water. These activities will drive a cutting-edge approach for increased resilience of economies and societies, and the use of modern technologies for climate adaptation.

61. These issues are of high relevance in SIDS. With the strong support of Members and other partners, the SIDS Lighthouses Initiative (SIDS LHI) continues to flourish and exceed its set targets on energy transitions in islands. As the share of renewables in SIDS grows, the focus is broadening to wider socio-economic benefits. SIDS are also pioneers in recognising the importance of energy transitions for resilience and climate adaptation and IRENA continues to engage the global community in support of this agenda. SIDS LHI work will continue at pace in the coming biennium, along with direct capacity building and technical assistance on a range of technology, policy and project facilitation matters.

62. Another long-standing IRENA initiative is the Global Geothermal Alliance (GGA), a global platform for improved dialogue, cooperation and action among policymakers, industry and other stakeholders to increase the use of geothermal energy. GGA works on the complex challenges associated with geothermal development for power generation and direct use of heat, including in cities, to help unlock investments at a global scale. IRENA will continue to co-ordinate the implementation of the GGA Action Plan, convene the Alliance and provide expert contributions.

63. IRENA has significantly accelerated its engagement with the private sector, in line with the guidelines promulgated in 2020. In the next cycle, private sector collaboration will be sustained to grow the engagement of these important constituencies. This engagement will be pursued through the existing platforms, including Collaborative Frameworks and the Climate

[15] See information on EU/IRENA compact in paragraph 38.
[16] More information available here.
[17] More information available here.
[18] More information available here.
[19] More details here.

Investment Platform (CIP), but also through innovative approaches to engage those who need to transition, such as large energy consumers and fossil fuel companies. IRENA's Coalition for Action will remain a vital avenue for stakeholder engagement and efforts will be made to increase its contribution in content and participation. Several topical workstreams are already in place and the Coalition will work on issues such as 100% renewable energy, agri-food systems, sustainable jobs, high potential energy markets and community energy projects.

64. The Agency will also seek to effectively engage stakeholders who need to play a role in energy transitions including entrepreneurs, legislators, youth and citizens, including indigenous communities. IRENA's established platforms such as the Legislators and Youth Forums, as well as the Youth Talk and IRENA Student Leaders Programme will be effectively leveraged to broaden the reach and amplify impact. A new initiative dedicated to increasing resilience of remote communities will also seek to reshape the socio-economic outlook for these through the deployment of renewable energy.

**OUTPUTS**[20]

**Initiatives and partnerships**

- IRENA Investment Forums*
- Regional Action Agendas and Clean Energy Corridors
- Energy Compacts Implementation*
- Off-Grid Renewable Energy Solutions: Agri-food systems*, health*, clean cooking
- 6th International Off-grid Renewable Energy Conference (IOREC)*
- SIDS Lighthouses Initiative*
- Global Geothermal Alliance*
- Long-term Energy Scenarios campaign and network*
- Peer-to-Peer Network "Energy Transition Connect"
- Coalition for Action
- Resilient Remote Communities*
- Youth Forum
- Youth Talk
- Legislators Forum
- IRENA Student Leaders Programme

**Table 3: Core budgetary requirements - Network Hub for Energy Transformation**

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **8,336** | Proportion of IRENA budget | **13%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **3,490** |
| **Non-staff costs** | | | **4,846** |
| **Non-staff costs by division** | | | |
| Office of the Director-General | | | 32 |
| IRENA Innovation and Technology Centre | | | 737 |
| Country Engagement and Partnerships | | | 3,118 |
| Knowledge, Policy and Finance Centre | | | 800 |
| Project Facilitation and Support | | | 159 |

[20] Outputs with an asterisk (*) are partially or fully funded by voluntary contributions.

## IV. Source of Advice and Support

*Objective: Support country-level decision-making to accelerate the renewables-based transformation of their energy systems, advance strategies to decrease global emissions and achieve sustainable development.*

65. Countries approach their energy transition with different starting points and priorities, and various structural, economic, social and institutional particularities. They therefore require concrete, objective and targeted advice and support and IRENA has filled an important gap in this regard. Building on the work to date and its continuous analytical excellence, IRENA will continue to provide advice and support to countries, leveraging its added value. These willbe in direct response to requests received from Members and aligned with the priorities of renewables-based energy pathways outlined in WETO and RETOs.

66. In the 2020-2021 programmatic cycle, IRENA adjusted its internal structure to provide closer links between its analytical and country support work and streamlined external engagement through consistent entry points. This adjustment has further clarified several distinct areas where IRENA's advice and support to counties were most needed in their energy transition priorities. Renewable Readiness Assessments (RRAs) and roadmaps remain such priorities, enriched with strategies for regional integration, investment, job creation and industrial development. Country-level assessments will also be undertaken for deployment of decentralised renewables across sectors like health and agri-food systems.

67. Targeted technical advisory and capacity building support will continue on issues such as data collection and use, energy planning, grid integration, system flexibility, job creation and nexus with health, food and water among others. Two new streams of work on capacity building and technical assistance will be deployed. First, IRENA's Policy Framework for the Energy Transition (PFET) will be introduced to support target setting, estimation of socio-economic benefits and design of education and skilling policies, among others. Many of these issues emerged as high national priority in the course of the work on NDCs, clearly showing the need for such support. Second, with the pressing need for climate action, IRENA will expand support to countries with practical tools and real-world case studies on innovation and technology in three streams: mitigation, adaptation and NDC implementation.

68. IRENA's tools and methodologies will continue to be deployed, with special effort to their dissemination and long-term use by local stakeholders. A regional dimension will be always considered in line with IRENA's priority to support integrated markets for accelerated energy transitions and high share of renewables, which yield optimal socio-economic outcomes. An important project in the coming biennium will be the African Continental Power Systems Master Plan (CMP) implemented by the AUDA-NEPAD in support of integrated power market for the continent. IRENA and the IAEA have been selected as main partners in this endeavour. IRENA's modelling and energy planning tools which have been deployed in some 50 countries to date will be used in this project. The IRENA System Planning Test (SPLAT) models represent national supply structures and regional interconnections for assessment of a wide range of least-cost supply scenarios. Through the Addressing Variable Renewable Energy (VRE) in Long-term Energy Planning (AVRIL), IRENA collects and formalises knowledge on planning and modelling methodologies to improve the representation of VREs in the long-term planning. While deploying these tools for the African CMP project, IRENA will also focus on building the institutional and human capacity that would ensure local ownership andlong-term capability to use IRENA tools.

69. One of the important reasons for the development of RETOs is the provision of investment frameworks to orientate government and private sector activities. IRENA's work in the Climate Investment Platform (CIP)[21] will be closely aligned with these frameworks. In the current programmatic cycle, IRENA has operationalised the CIP along 14 geographical clusters. Given the pandemic, many plans have been delayed. Nevertheless, the Platform has attracted almost 300 partners to date with over 250 projects which are gradually starting to be matched with risk-mitigation and financing entities. This indicates that CIP is filling a gap in the current landscape and, as the conditions improve, IRENA will actively pursue its full implementation. This includes several streams of work ranging from capacity building at the country level, preparation of Product Information Documents (PIDs), through fostering partnerships at all levels, including with the local financing institutions. CIP will play a large role in the forthcoming IRENA Investment Forums, both in their preparation and follow up capacity building activities.

70. IRENA successfully completed its work on the IRENA/ADFD Project Facility in 2020. Since then, significant work is underway to design a new facility in collaboration with ADFD. The new Energy Transition Accelerator Financing Platform (ETAF) will be launched in the coming weeks. The ETAF will target renewable energy projects to promote resilient energy systems in developing countries

71. The success of energy transitions hinges upon engagement of domestic stakeholders, including local project developers, entrepreneurs, and financial institutions (FIs). IRENA will work with project developers and entrepreneurs to enhance and strengthen their capacities to assess the various technologies and business potentials of sustainable energy, understand local markets and develop viable business plans. IRENA will also assist project proponents in identifying key project-related risks and their management as a tool to support project de-risking and facilitate financial matchmaking. To further support project facilitation, IRENA will continue to deploy diverse tools, including the Global Atlas and the SolarCityEngine to support site and resource assessments, which have proven to be effective in diverse settings. Special effort will be made to support LDCs and SIDS in building a pipeline of bankable projects and accessing sustainable finance.

**OUTPUTS[22]**

Capacity Building and Technical Assistance

- Renewable Readiness Assessments*
- Energy Transition Outlooks* (country level)
- Policy Framework for Energy Transition (PFET) modules
- Renewable Energy Statistics collection and use*
- Renewable Energy Policies for Cities
- Renewable Energy Education and Skills*
- Cross-sectoral assessments for decentralised renewable solutions*
- African Continental Power Systems Master Plan* (CMP)
- Climate Action Innovation and Technology: mitigation, adaptation and NDC implementation*

[21] The Climate Investment Platform (CIP) is an inclusive partnership to scale-up climate action and translate ambitious national climate targets into real-life investments. The founding partners are IRENA, the United Nations Development Programme (UNDP) and Sustainable Energy for All (SE4All), in co-operation with the Green Climate Fund (GCF).

[22] Outputs with an asterisk (*) are partially or fully funded by voluntary contributions.

Project Facilitation and Support

- Climate Investment Platform implementation: 14 clusters*
- Energy Transition Accelerator Financing Platform* (ETAF)
- Risk Mitigation Facility*
- Facilitation and development of a pipeline of projects*
- Project site assessments and feasibility assessments* (Global Atlas and SolarCityEngine)

**Table 4: Core budgetary requirements - Source of Advice and Support**

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **7,146** | Proportion of IRENA budget | **11%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **4,854** |
| **Non-staff costs** | | | **2,292** |
| **Non-staff costs by division** | | | |
| Office of the Director-General | | | 165 |
| IRENA Innovation and Technology Centre | | | 453 |
| Country Engagement and Partnerships | | | 718 |
| Knowledge, Policy and Finance Centre | | | 204 |
| Project Facilitation and Support | | | 752 |

## V. Strategic Management

72. IRENA Membership has reached 166 Members (165 States and the European Union) with 18 States in the process of accession. This makes the Agency a global powerhouse for international cooperation on the energy transition and all-encompassing diversity of interest in renewable energy. Thus, Assembly sessions and Council meetings are key avenues for Members to shape the global energy agenda, monitor progress and guide the Agency on all policy, programmatic and governance matters. Plenary discussions, high-level dialogues, programmatic events and stakeholder fora and dialogues will promote the Agency's leading role in accelerating the energy transition with a view to sustainable development and climate efforts. The Agency will strive to make Governing Body meetings richer in substance, and more sustainable in operations and in efficiency of delivery. Moreover, IRENA will seek to maximise the Global High-Level Forum on Energy Transition, to sustain political engagement between the Assembly sessions.

73. The Director-General's senior team is now in place, and the institutional alignment made in the last programmatic cycle has been fully implemented. Several strategic streams of work have been introduced to better coordinate programme delivery – substantively and organisationally – and promote efficient implementation of activities. The introduction of a Directive on programme implementation was a decisive step in ensuring internal accountability and transparency, while promoting decentralised management.

74. Several systems have been introduced to promote programmatic coherence across divisions and duty stations. This included strengthened processes for development of knowledge products and delivery of events. Given that these are key programmatic activities, these systems will continue to be enhanced to ensure quality control and further streamlined for efficiency. Given the importance of communication and outreach, the next biennium will prioritise the strategic positioning of the Agency and its messages for diverse audiences and mainstream communication in all facets of the programmatic activities. This means that communication activities will become an integral part of the programme implementation.

75. The hiatus caused by the pandemic prevented the physical convening of most meetings, including of the Governing Bodies. While many downsides were obvious, valuable experiences have also been gained. IRENA will consider these and examine practices in other international organisations to present to Members an optimal approach that embraces transparency and inclusiveness, while harnessing the benefits of modern technology. Travel restrictions also accentuated the need to broaden and strengthen the network of Permanent Representatives (PRs) at Headquarters in Abu Dhabi. Regular briefings and quarterly editions of the Renewables Talk for IRENA Permanent Representatives will continue to sustain interest in, and knowledge of the work of the Agency as well as to promote knowledge sharing and have engagement among PRs to drive the global energy transition.

76. IRENA's presence in Bonn will be used to promote collaborative efforts on climate, given the geographical concentration of institutions that work on related issues. Pursuant to the Host Country Agreement, Germany also provided new premises for the IRENA Innovation and Technology Centre in 2020. Due to the pandemic, these premises have been only partially utilised but it is envisaged that the building, including its conference facilities, will be extensively used to strengthen IRENA's visibility in Bonn as well as in Europe. Similarly, IRENA's New York Liaison Office will continue to be used to systematically engage with the United Nations System and other partners, including to establish links to the processes related to the UN 2030 Agenda for Sustainable Development.

77. High levels of inclusiveness and ownership are a lynchpin of IRENA's effectiveness. The Fund for Developing Country Representatives (FDCR) has been key in enabling the participation of representatives of LDCs and SIDS at IRENA Governing Body meetings. This Fund relies on voluntary contributions, and its replenishment, along with efficient management, guarantees that the advantages of the Agency's global Membership are fully exploited.

78. The Agency will maintain a sustained dialogue with its host countries on the implementation of the respective agreements concerning the Headquarters in Abu Dhabi and the Innovation and Technology Centre in Bonn. It will also continue to raise Members' awareness on the importance of granting to the Agency the privileges and immunities it requires for the exercise of its functions.

**Table 5: Core budgetary requirements - Strategic Management**

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **9,304** | Proportion of IRENA budget | **14%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **4,464** |
| **Non-staff costs** | | | **4,840** |
| **Non-staff costs by division** | | | |
| Office of the Director-General | | | 4,625 |
| Administration and Management Services | | | 215 |

## VI. Enabling IRENA Delivery

79. The achievement of IRENA's strategic objectives relies on its internal capacity and institutional efficiency. Several operational processes underpin the functioning of the Agency. These include the management of finance, human resources, procurement, travel, information and communications technology (ICT), facilities, security, and health and safety. These functions, while not often visible, ensure efficient and effective delivery of the Medium-term Strategy and the Work Programme.

80. Many of these functions have been put to the test during the pandemic. IRENA's strong ICT services played a vital role in ensuring a continuum in the programme delivery, and effective health and safety procedures minimised risks to staff. Many lessons have been learned in the process, which will be carefully examined and applied to refine policies and processes across administrative functions. As the health crisis is still ongoing, the Agency will continue to follow advice and recommendations with prudence and minimal risk to staff and personnel at IRENA premises.

81. IRENA's support services remain lean, which means that efficiency of its functions and processes will be paramount. Upgrades and enhancements will continue to be made to the IRENA website, platforms, and projects related to improving connectivity and communications. In addition, cybersecurity capabilities will continue to be enhanced to protect data and assets, given the growing risks in this regard.

82. Consistent with the current approach, the Agency will proactively address management recommendations provided through internal review and oversight, as well as those identified by the Agency's internal and external audit functions. Also, the IRENA staff survey will be used as a tool to inform of actions to be taken with regard to various staff management issues. IRENA will also increase its environmental sustainability through office measures and business practices, so that the Agency's important mission is reflected in its own operations.

83. IRENA will continue to monitor management practices to promote accountability and streamline work processes and procedures. Such an approach will enable continuous management improvement, and transparent implementation of policies. Importantly, it creates space for new initiatives to empower staff and managers to actively contribute to the improvements in the work of the Agency.

84. The Agency will continue to strengthen its reporting to Members. In line with the request received, IRENA has started to provide more detailed reports on human resources, especially on project posts. Additional and detailed information is also regularly provided on voluntary contributions and projects which these contributions support. As the reliance on voluntary contributions increases, such reporting will continue to both understand the financial aspects as well as the programmatic linkages and contributions.

### Table 6: Core budgetary requirements - Enabling IRENA Delivery

| **Core budgetary requirements** | | | |
|---|---|---|---|
| **Core assessed and core non-assessed resource requirements 2022-2023 (in USD thousands)** | **16,121** | Proportion of IRENA budget | **25%** |
| **Breakdown of *core assessed* and *core non-assessed* costs (in USD thousands)** | | | |
| **Staff costs** | | | **9,702** |
| **Non-staff costs** | | | **6,419** |
| **Non-staff costs by division** | | | |
| Office of the Director-General | | | 2,150 |
| Administration and Management Services | | | 4,269 |

# VII. Programmatic Overview

### Table 7: Programmatic Overview -Centre of Excellence for Energy Transformation

| **I. Centre of Excellence for Energy Transformation** | Core assessed and core non-assessed resources (in USD thousands): 14,108 |
|---|---|
| *Objective: Empower effective policy and decision-making by providing authoritative knowledge and analysis on renewables-based energy transformation at global, national and sectoral levels* | |
| **Outputs** | |
| World Energy Transitions Outlook (2022 and 2023 editions)* | |
| Regional Energy Transitions Outlooks (selected regions in Africa, Europe, Latin America)* | |
| Innovation Landscape for the Energy Transition | |
| Geopolitics of the Energy Transformation: biennial report on trends* | |
| Global Landscape of Renewable Energy Finance | |
| Renewable Energy Capacity and Generation (annual update) | |
| Power Generation Costs (annual update) | |
| Costs and Performance of End-use Technologies - selected insights | |
| Annual Jobs Review | |
| Patents and Standards Database INSPIRE (annual update) | |
| Global Atlas updates on renewable potentials | |
| SDG7 Tracking Report (2022 and 2023 editions)* | |
| Innovation Week | |
| Human Resources and Workforce Planning Strategy | |

### Table 8: Programmatic Overview - Global Voice of Renewables

| **II. Global Voice of Renewables** | Core assessed and core non-assessed resources (in USD thousands): 9,773 |
|---|---|
| *Objective: Shape the global discourse on energy transformation by providing relevant, timely, high-quality information and access to data on renewable energy.* | |
| **Outputs**[23] | |
| Socio-economic Analyses at Country Level* (reports and country briefs) | |
| Leveraging Local Capabilities (selected technologies) | |
| Ecosystems for Sustainable Livelihoods* | |
| Decentralised Renewable Energy Solutions* (policies for mini-grids; solutions for clean cooking) | |
| Renewable Energy Policies in the Power Sector (decentralised generation; high-risk environments) | |
| Power Market Design for the Energy Transition | |
| Renewable Energy Education and Skills* | |
| Renewable Energy Policies for Cities: localising end-use value chains | |
| Climate Policy: renewable energy and NDCs* | |
| Climate Change Adaptation: methodology and country analyses* | |
| Geopolitics of the Energy Transformation: deep dive on a selected topic* | |
| Gender and Renewable Energy: tracking global progress | |
| Energy Transition for End-uses (transport and industry decarbonisation) | |
| End-use Decarbonisation: guides for policy-making (procurement; heating and cooling; transport; green hydrogen) | |
| Greening the Gas System* | |
| Energy Transition and Critical Materials* | |
| End of Life and Circular Economy* (storage and batteries; solar PV panels) | |
| Corporate Sourcing of Renewable Energy | |
| Comprehensive Global Communication Strategy with accessible and multilingual content and information* | |
| Regional Communication Strategies | |
| Promotion and use of digital knowledge products and information* | |

[23] Outputs marked with Asterix (*) are fully or partially funded by voluntary contributions.

### Table 9: Programmatic Overview - Network Hub

| **III. Network Hub** | Core assessed and core non-assessed resources (in USD thousands): 8,336 |
|---|---|
| *Objective: Provide an inclusive platform for all stakeholders to foster action, convergence of efforts and knowledge sharing for impact on the ground.* | |
| **Outputs**[24] | |
| IRENA Investment Forums* | |
| Regional Action Agendas and Clean Energy Corridors | |
| Energy Compacts Implementation* | |
| Off-Grid Renewable Energy Solutions: Agri-food systems*, health*, clean cooking | |
| 6th International Off-grid Renewable Energy Conference (IOREC)* | |
| SIDS Lighthouses Initiative* | |
| Global Geothermal Alliance* | |
| Long-term Energy Scenarios campaign and network* | |
| Peer-to-Peer Network "Energy Transition Connect" | |
| Coalition for Action | |
| Resilient Remote Communities* | |
| Youth Forum | |
| Youth Talk | |
| Legislators Forum | |
| Student Leaders Programme | |

### Table 10: Programmatic Overview - Source of Advice and Support

| **IV. Source of Advice and Support** | Core assessed and core non-assessed resources (in USD thousands): 7,146 |
|---|---|
| *Objective: Support country-level decision-making to accelerate the renewables-based transformation of national energy systems, advance strategies to diversify energy sources, reduce global emissions and achieve sustainable development.* | |
| **Outputs**[25] | |
| Renewable Readiness Assessments* | |
| Energy Transition Outlooks (country level)* | |
| Policy Framework for Energy Transition (PFET) modules | |
| Renewable Energy Statistics collection and use* | |
| Renewable Energy Policies for Cities | |
| Renewable Energy Education and Skills* | |
| Cross-sectoral Assessments for Decentralized Renewable Solutions* | |
| African Continental Power Systems Master Plan* (CMP) | |
| Climate Action Innovation and Technology: Mitigation, Adaptation and NDC Implementation* | |
| Climate Investment Platform Implementation: 14 clusters* | |
| Energy Transition Accelerator Financing Platform* (ETAF) | |
| Risk Mitigation Facility* | |
| Facilitation and development of a pipeline of projects* | |
| Project site assessments and feasibility assessments* (Global Atlas and SolarCityEngine) | |

[24] Outputs marked with Asterix (*) are fully or partially funded by voluntary contributions.
[25] Outputs marked with Asterix (*) are fully or partially funded by voluntary contributions.

## VIII. 2022-2023 Biennium Budget Proposal

**Table 11: 2022-2023 Biennium core assessed and core non-assessed resource requirements**

| | 2020-2021 Biennium Budget | 2022-2023 Biennium Proposed Budget | 2022 Proposed Budget | 2023 Proposed Budget |
|---|---|---|---|---|
| **Assessed Contributions (Core Budget)** | | | | |
| Members (2019) | 43,130 | 44,461 | 22,230 | 22,230 |
| Members (post-2020) * | 1,331 | 317 | 158 | 158 |
| **Total Assessed Contributions (Core Budget)** | **44,461** | **44,778** | **22,389** | **22,389** |
| **Core Non-Assessed UAE Contributions:** | | | | |
| UAE Support | 5,000 | 5,000 | 2,500 | 2,500 |
| Governing Body Meetings | 3,200 | 3,200 | 1,600 | 1,600 |
| IT Infrastructure support | 920 | 920 | 460 | 460 |
| ***Subtotal UAE Contributions*** | **9,120** | **9,120** | **4,560** | **4,560** |
| | | | | |
| **Core Non-Assessed Germany Contributions:** | | | | |
| Innovation and Technology Center | 10,890 | 10,890 | 5,445 | 5,445 |
| ***Subtotal Germany Contributions*** | **10,890** | **10,890** | **5,445** | **5,445** |
| **Core Non-Assessed Other Contribution** | | | | |
| Core Non-Assessed Other | 1,704 | 0 | 0 | 0 |
| ***Subtotal Core Non-Assessed Other Contributions*** | **1,704** | **0** | **0** | **0** |
| **Total Core Non-Assessed** | **21,714** | **20,010** | **10,005** | **10,005** |
| | | | | |
| **Grand Total** | **66,175** | **64,788** | **32,394** | **32,394** |

Note: * Members joining after January 2020: Austria, Central African Republic, Dominica, Honduras, Kyrgyzstan

**Table 12: 2022-2023 Biennium core assessed and core non-assessed resource requirements by Segment**

| Programmatic Overview | Core Assessed and Non-Assessed 2022-2023* | % |
|---|---|---|
| **A. Strategic Management** | **9,304** | **14%** |
| Office of the Director-General | 9,089 | 14% |
| Administration and Management Services | 215 | <1% |
| **B. Centre of Excellence for Energy Transformation** | **14,108** | **22%** |
| IRENA Innovation and Technology Centre | 7,046 | 11% |
| Knowledge, Policy and Finance Centre | 4,926 | 8% |
| Administration and Management Services | 2,136 | 3% |
| **C. Global Voice of Renewables** | **9,773** | **15%** |
| Office of the Director-General | 3,794 | 6% |
| IRENA Innovation and Technology Centre | 1,795 | 3% |
| Knowledge, Policy and Finance Centre | 4,060 | 6% |
| Project Facilitation and Support | 124 | <1% |
| **D. Network Hub for Energy Transformation** | **8,336** | **13%** |
| Country Engagement and Partnerships | 5,816 | 9% |
| IRENA Innovation and Technology Centre | 1,389 | 2% |
| Knowledge, Policy and Finance Centre | 940 | 1% |
| Project Facilitation and Support | 159 | <1% |
| Office of the Director-General | 32 | <1% |
| **E. Source of Advice** | **7,146** | **11%** |
| Country Engagement and Partnerships | 2,610 | 4% |
| IRENA Innovation and Technology Centre | 660 | 1% |
| Knowledge, Policy and Finance Centre | 573 | 1% |
| Project Facilitation and Support | 3,138 | 5% |
| Office of the Director-General | 165 | <1% |
| **F. Enabling IRENA Delivery** | **16,121** | **25%** |
| Office of the Director-General | 5,209 | 8% |
| Administration and Management Services | 10,912 | 17% |
| **Grand Total** | **64,788** | **100%** |

Note: * Includes Core Assessed and Core Non-Assessed from Germany and United Arab Emirates.

### Table 13: 2022-2023 Biennium Post requirements

| Level | 2020-2021 | Proposed 2022-2023 | Increase/ (decrease) |
|---|---|---|---|
| **ASG** | 1 | 1 | - |
| **D-2** | 1 | 1 | - |
| **D-1** | 6 | 6 | - |
| **P-5** | 17 | 17 | - |
| **P-3/4** | 37 | 37 | - |
| **P-2/1** | 3 | 3 | - |
| **Sub-total Professional and above** | **65** | **65** | **-** |
| **General Services** | **28** | **28** | **-** |
| **Total** | **93** | **93** | **-** |

### Table 14: 2022-2023 Biennium core assessed and core non-assessed resource requirements by object of expenditure (in USD thousands)

| Object of Expenditure | 2020-2021 Biennium Total Core Assessed and Non-Assessed | 2022-2023 Biennium Total Core Assessed and Non-Assessed |
|---|---|---|
| **Total Staff Costs** | **35,379** | **34,177** |
| **Total Non-Staff Costs** | **30,795** | **30,611** |
| **Project & Seconded Personnel, Internsand Consultants** | 16,797 | 18,664 |
| **Programme and Expert Meetings** | 3,252 | 1,349 |
| **Travel of Staff** | 2,712 | 1,147 |
| **Contractual Services** | 5,462 | 5,741 |
| **General Operating Expenses** | 2,169 | 3,449 |
| **Furniture and Equipment** | 402 | 261 |
| **Total** | **66,174** | **64,788** |

Note: Core Non-Assessed resource requirements for 2022-2023 include USD 10.89m from Germany for IITC, USD 9.1m from UAE (USD 3.2m for Governing Body Meetings and USD 5.9m from United Arab Emirates).

### Table 15: Resource Requirements: Office of the Director-General (ODG)

| Resource Requirements | (in USD thousands) |
|---|---|
| *Total Requirements* | *18,288* |

| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| Staff Costs | 8,953 | 23 |
| Non-staff Costs | 9,335 | - |
| Total | **18,288** | **23** |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| Total Staff Costs | **8,953** |
| Total Non-Staff Costs | **9,335** |
| Project & Seconded Personnel, Interns and Consultants | 4,894 |
| Programme and Expert Meetings | 238 |
| Travel of Staff | 570 |
| Contractual Services | 2,789 |
| General Operating Expenses | 812 |
| Furniture and Equipment | 32 |
| Total | **18,288** |

### Table 16: Resource Requirements: Country Engagement and Partnerships (CEP)

| Resource Requirements | Resources (in USD thousands) |
|---|---|
| *Total Requirements* | ***8,426*** |

| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| **Staff Costs** | 4,590 | 11 |
| **Non-staff Costs** | 3,836 | - |
| **Total** | **8,426** | **11** |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| **Total Staff Costs** | **4,590** |
| **Total Non-Staff Costs** | **3,836** |
| **Project & Seconded Personnel, Interns and Consultants** | 2,482 |
| **Programme and Expert Meetings** | 824 |
| **Travel of Staff** | 76 |
| **Contractual Services** | 454 |
| **Total** | **8,426** |

### Table 17: Resource Requirements: IRENA Innovation and Technology Centre (IITC)

| Resource Requirements | Resources (in USD thousands) |
|---|---|
| *Total Requirements* | *10,890* |

| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| Staff Costs | 4,803 | 16 |
| Non-staff Costs | 6,087 | - |
| Total | **10,890** | **16** |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| Total Staff Costs | **4,803** |
| Total Non-Staff Costs | **6,087** |
| Project & Seconded Personnel, Interns and Consultants | 4,447 |
| Programme and Expert Meetings | 160 |
| Travel of Staff | 280 |
| Contractual Services | 670 |
| General Operating Expenses | 412 |
| Furniture and Equipment | 118 |
| Total | **10,890** |

### Table 18: Resource Requirements: Knowledge, Policy and Finance Centre (KPFC)

| Resource Requirements | (in USD thousands) |
|---|---|
| *Total Requirements* | ***10,500*** |

| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| **Staff Costs** | 5,029 | 13 |
| **Non-staff Costs** | 5,471 | - |
| **Total** | **10,500** | **13** |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| **Total Staff Costs** | **5,029** |
| **Total Non-Staff Costs** | **5,471** |
| **Project & Seconded Personnel, Interns and Consultants** | 4,193 |
| **Programme and Expert Meetings** | 127 |
| **Travel of Staff** | 105 |
| **Contractual Services** | 1,014 |
| **General Operating Expenses** | 32 |
| **Total** | **10,500** |

### Table 19: Resource Requirements: Project Facilitation and Support (PFS)

| Resource Requirements | (in USD thousands) |
|---|---|
| *Total Requirements* | *3,421* |

| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| Staff Costs | 2,386 | 5 |
| Non-staff Costs | 1,035 | - |
| Total | 3,421 | 5 |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| Total Staff Costs | 2,386 |
| Total Non-Staff Costs | 1,035 |
| Project & Seconded Personnel, Interns and Consultants | 672 |
| Travel of Staff | 80 |
| Contractual Services | 283 |
| Total | 3,421 |

### Table 20: Resource Requirements: Administration and Management Services (AMS)

| Resource Requirements | Resources (in USD thousands) |
|---|---|
| *Total Requirements* | *13,263* |

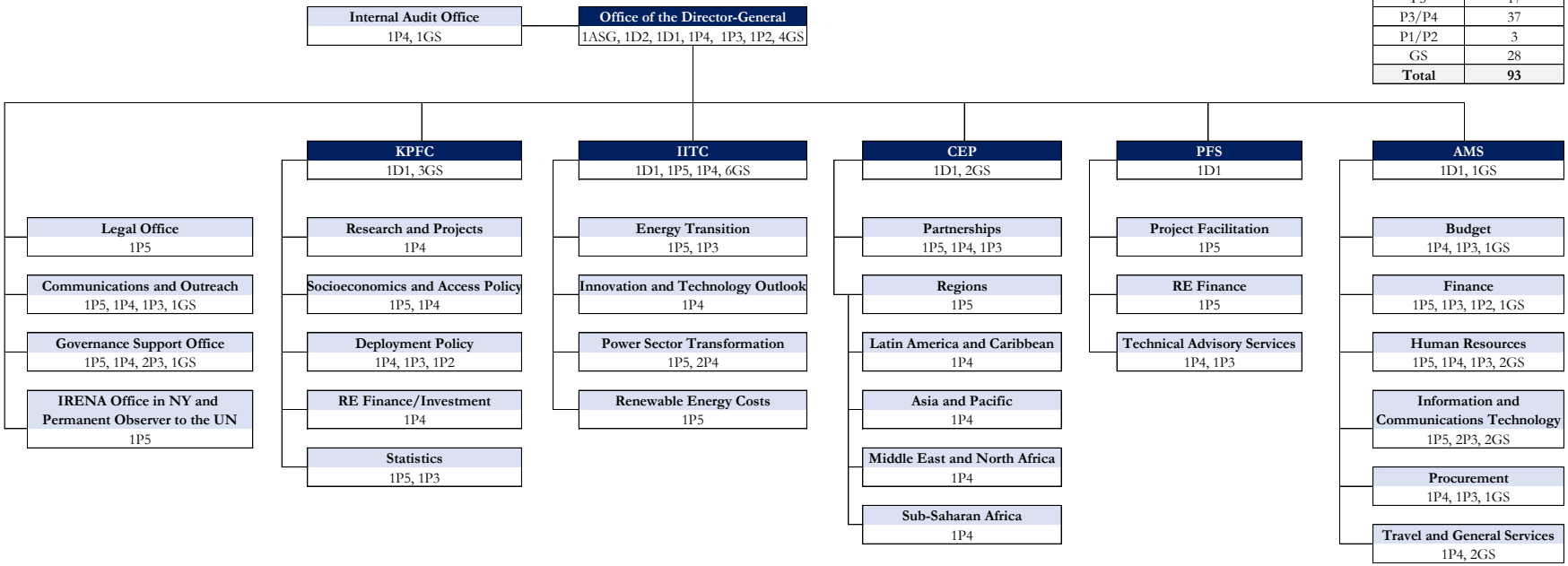
| Category | Resources (in USD thousands) | Core Posts |
|---|---|---|
| Staff Costs | 8,416 | 25 |
| Non-staff Costs | 4,847 | - |
| Total | 13,263 | 25 |

| Object of Expenditure | 2022-2023 Biennium Estimate (in USD thousands) |
|---|---|
| Total Staff Costs | 8,416 |
| Total Non-Staff Costs | 4,847 |
| Project & Seconded Personnel, Interns and Consultants | 1,977 |
| Travel of Staff | 36 |
| Contractual Services | 531 |
| General Operating Expenses | 2,192 |
| Furniture and Equipment | 111 |
| Total | 13,263 |

# Annex I

## IRENA Organisational Structure and Post Distribution for 2022-2023 Biennium

| Summary of Core Posts | |
|---|---|
| **Posts** | **No.** |
| ASG | 1 |
| D2 | 1 |
| D1 | 6 |
| P5 | 17 |
| P3/P4 | 37 |
| P1/P2 | 3 |
| GS | 28 |
| **Total** | **93** |



# Annex II

## Proposed Indicative IRENA Scale of Contributions for 2022

| Members | UN Factor[26] 2019 to 2021 | Indicative IRENA Adjusted Scale of Assessments 2022 (%) | Indicative Assessed Contribution to IRENA 2022 (USD) | Approved Assessed Contribution to IRENA 2021 (USD) | Variance 2022-2021 (USD) |
|---|---|---|---|---|---|
| Afghanistan | 0.007 | 0.007% | 1,517 | 1,461 | 56 |
| Albania | 0.008 | 0.009% | 1,951 | 1,878 | 73 |
| Algeria | 0.138 | 0.148% | 32,078 | 37,997 | (5,919) |
| Angola* | 0.010 | 0.010% | 2,167 | 2,089 | 78 |
| Antigua and Barbuda | 0.002 | 0.002% | 433 | 418 | 15 |
| Argentina | 0.915 | 0.978% | 211,978 | 210,236 | 1,742 |
| Armenia | 0.007 | 0.007% | 1,517 | 1,461 | 56 |
| Australia | 2.210 | 2.364% | 512,389 | 550,538 | (38,149) |
| Azerbaijan | 0.049 | 0.052% | 11,271 | 14,198 | (2,927) |
| Bahamas | 0.018 | 0.019% | 4,118 | 3,340 | 778 |
| Bahrain | 0.050 | 0.053% | 11,488 | 10,439 | 1,049 |
| Bangladesh* | 0.010 | 0.010% | 2,167 | 2,089 | 78 |
| Barbados | 0.007 | 0.007% | 1,517 | 1,669 | (152) |
| Belarus | 0.049 | 0.052% | 11,271 | 13,152 | (1,881) |
| Belgium | 0.821 | 0.878% | 190,304 | 208,565 | (18,261) |
| Belize | 0.001 | 0.001% | 217 | 208 | 9 |
| Benin | 0.003 | 0.003% | 651 | 626 | 25 |
| Bhutan | 0.001 | 0.001% | 217 | 208 | 9 |
| Bosnia and Herzegovina | 0.012 | 0.013% | 2,818 | 3,132 | (314) |
| Botswana | 0.014 | 0.015% | 3,251 | 3,340 | (89) |
| Brunei Darussalam | 0.025 | 0.027% | 5,852 | 6,890 | (1,038) |
| Bulgaria | 0.046 | 0.049% | 10,621 | 10,648 | (27) |
| Burkina Faso | 0.003 | 0.003% | 651 | 1,043 | (392) |
| Cabo Verde | 0.001 | 0.001% | 217 | 208 | 9 |
| Cameroon | 0.013 | 0.014% | 3,034 | 2,297 | 737 |
| Canada | 2.734 | 2.924% | 633,767 | 660,353 | (26,586) |
| Chad | 0.004 | 0.004% | 867 | 1,253 | (386) |
| China | 12.005 | 12.837% | 2,782,376 | 1,866,233 | 916,143 |
| Colombia | 0.288 | 0.308% | 66,758 | 75,786 | (9,028) |
| Comoros | 0.001 | 0.001% | 217 | 208 | 9 |
| Costa Rica | 0.062 | 0.066% | 14,305 | 11,066 | 3,239 |
| Cote D'Ivoire | 0.013 | 0.014% | 3,034 | 2,089 | 945 |
| Croatia | 0.077 | 0.082% | 17,773 | 23,383 | (5,610) |
| Cuba | 0.080 | 0.086% | 18,640 | 15,241 | 3,399 |
| Cyprus | 0.036 | 0.038% | 8,236 | 10,231 | (1,995) |
| Czech Republic | 0.311 | 0.333% | 72,177 | 81,004 | (8,827) |
| Denmark | 0.554 | 0.592% | 128,314 | 137,582 | (9,268) |
| Djibouti | 0.001 | 0.001% | 217 | 208 | 9 |
| Dominican Republic | 0.053 | 0.057% | 12,355 | 10,856 | 1,499 |

[26]UN scale of assessment is established for a 3-year period with covering the period 2019-2021 as per A/RES/73/271dated 4 January 2019

| Members | UN Factor[26] 2019 to 2021 | Indicative IRENA Adjusted Scale of Assessments 2022 (%) | Indicative Assessed Contribution to IRENA 2022 (USD) | Approved Assessed Contribution to IRENA 2021 (USD) | Variance 2022-2021 (USD) |
|---|---|---|---|---|---|
| Ecuador | 0.080 | 0.086% | 18,640 | 15,867 | 2,773 |
| Egypt | 0.186 | 0.199% | 43,133 | 35,908 | 7,225 |
| El Salvador | 0.012 | 0.013% | 2,818 | 3,340 | (522) |
| Eritrea | 0.001 | 0.001% | 217 | 208 | 9 |
| Estonia | 0.039 | 0.042% | 9,103 | 8,977 | 126 |
| Eswatini | 0.002 | 0.002% | 433 | 418 | 15 |
| Ethiopia* | 0.010 | 0.010% | 2,167 | 2,089 | 78 |
| Fiji | 0.003 | 0.003% | 651 | 626 | 25 |
| Finland | 0.421 | 0.450% | 97,536 | 107,519 | (9,983) |
| France | 4.427 | 4.734% | 1,026,078 | 1,144,709 | (118,631) |
| Gabon | 0.015 | 0.016% | 3,468 | 3,967 | (499) |
| Gambia | 0.001 | 0.001% | 217 | 208 | 9 |
| Georgia | 0.008 | 0.009% | 1,951 | 1,878 | 73 |
| Germany | 6.090 | 6.513% | 1,411,671 | 1,505,263 | (93,592) |
| Ghana | 0.015 | 0.016% | 3,468 | 3,758 | (290) |
| Greece | 0.366 | 0.391% | 84,748 | 111,068 | (26,320) |
| Grenada | 0.001 | 0.001% | 217 | 208 | 9 |
| Guinea | 0.003 | 0.003% | 651 | 418 | 233 |
| Guyana | 0.002 | 0.002% | 433 | 418 | 15 |
| Hungary | 0.206 | 0.220% | 47,684 | 37,997 | 9,687 |
| Iceland | 0.028 | 0.030% | 6,502 | 5,428 | 1,074 |
| India | 0.834 | 0.892% | 193,338 | 173,700 | 19,638 |
| Indonesia | 0.543 | 0.581% | 125,930 | 118,793 | 7,137 |
| Iran (Islamic Republic of) | 0.398 | 0.426% | 92,334 | 111,068 | (18,734) |
| Iraq | 0.129 | 0.138% | 29,911 | 30,481 | (570) |
| Ireland | 0.371 | 0.397% | 86,048 | 78,916 | 7,132 |
| Israel | 0.490 | 0.524% | 113,575 | 101,255 | 12,320 |
| Italy | 3.307 | 3.537% | 766,633 | 883,115 | (116,482) |
| Jamaica | 0.008 | 0.009% | 1,951 | 2,089 | (138) |
| Japan | 8.564 | 9.158% | 1,984,966 | 2,280,505 | (295,539) |
| Jordan | 0.021 | 0.022% | 4,768 | 4,801 | (33) |
| Kazakhstan | 0.178 | 0.190% | 41,182 | 45,096 | (3,914) |
| Kenya | 0.024 | 0.026% | 5,635 | 4,175 | 1,460 |
| Kiribati | 0.001 | 0.001% | 217 | 208 | 9 |
| Kuwait | 0.252 | 0.269% | 58,305 | 67,224 | (8,919) |
| Latvia | 0.047 | 0.050% | 10,837 | 11,691 | (854) |
| Lebanon | 0.047 | 0.050% | 10,837 | 10,856 | (19) |
| Lesotho | 0.001 | 0.001% | 217 | 208 | 9 |
| Liechtenstein | 0.009 | 0.010% | 2,167 | 1,669 | 498 |
| Lithuania | 0.071 | 0.076% | 16,473 | 16,910 | (437) |
| Luxembourg | 0.067 | 0.072% | 15,606 | 15,032 | 574 |
| Malaysia | 0.341 | 0.365% | 79,113 | 75,786 | 3,327 |
| Maldives | 0.004 | 0.004% | 867 | 418 | 449 |
| Mali | 0.004 | 0.004% | 867 | 626 | 241 |
| Malta | 0.017 | 0.018% | 3,901 | 3,758 | 143 |
| Marshall Islands | 0.001 | 0.001% | 217 | 208 | 9 |
| Mauritania | 0.002 | 0.002% | 433 | 418 | 15 |

| Members | UN Factor[26] 2019 to 2021 | Indicative IRENA Adjusted Scale of Assessments 2022 (%) | Indicative Assessed Contribution to IRENA 2022 (USD) | Approved Assessed Contribution to IRENA 2021 (USD) | Variance 2022-2021 (USD) |
|---|---|---|---|---|---|
| Mauritius | 0.011 | 0.012% | 2,601 | 2,924 | (323) |
| Mexico | 1.292 | 1.382% | 299,544 | 338,006 | (38,462) |
| Micronesia | 0.001 | 0.001% | 217 | 208 | 9 |
| Monaco | 0.011 | 0.012% | 2,601 | 2,297 | 304 |
| Mongolia | 0.005 | 0.005% | 1,084 | 1,253 | (169) |
| Montenegro | 0.004 | 0.004% | 867 | 1,043 | (176) |
| Morocco | 0.055 | 0.059% | 12,788 | 12,735 | 53 |
| Mozambique | 0.004 | 0.004% | 867 | 1,043 | (176) |
| Namibia | 0.009 | 0.010% | 2,167 | 2,297 | (130) |
| Nauru | 0.001 | 0.001% | 217 | 208 | 9 |
| Nepal | 0.007 | 0.007% | 1,517 | 1,461 | 56 |
| Netherlands | 1.356 | 1.451% | 314,499 | 349,071 | (34,572) |
| New Zealand | 0.291 | 0.311% | 67,408 | 63,049 | 4,359 |
| Nicaragua | 0.005 | 0.005% | 1,084 | 1,043 | 41 |
| Niger | 0.002 | 0.002% | 433 | 418 | 15 |
| Nigeria | 0.250 | 0.267% | 57,871 | 49,271 | 8,600 |
| North Macedonia | 0.007 | 0.007% | 1,517 | 1,669 | (152) |
| Norway | 0.754 | 0.807% | 174,915 | 200,005 | (25,090) |
| Oman | 0.115 | 0.123% | 26,660 | 26,723 | (63) |
| Pakistan | 0.115 | 0.123% | 26,660 | 21,922 | 4,738 |
| Palau | 0.001 | 0.001% | 217 | 208 | 9 |
| Panama | 0.045 | 0.048% | 10,404 | 7,934 | 2,470 |
| Paraguay | 0.016 | 0.017% | 3,685 | 3,340 | 345 |
| Peru | 0.152 | 0.163% | 35,330 | 31,942 | 3,388 |
| Philippines | 0.205 | 0.219% | 47,468 | 38,832 | 8,636 |
| Poland | 0.802 | 0.858% | 185,969 | 198,126 | (12,157) |
| Portugal | 0.350 | 0.374% | 81,063 | 92,278 | (11,215) |
| Qatar | 0.282 | 0.302% | 65,457 | 63,467 | 1,990 |
| Republic of Korea | 2.267 | 2.424% | 525,394 | 480,390 | 45,004 |
| Republic of Moldova | 0.003 | 0.003% | 651 | 1,043 | (392) |
| Romania | 0.198 | 0.212% | 45,950 | 43,425 | 2,525 |
| Russian Federation | 2.405 | 2.572% | 557,472 | 727,578 | (170,106) |
| Rwanda | 0.003 | 0.003% | 651 | 418 | 233 |
| Saint Kitts and Nevis | 0.001 | 0.001% | 217 | 208 | 9 |
| Saint Lucia | 0.001 | 0.001% | 217 | 208 | 9 |
| Saint Vincent and the Grenadines | 0.001 | 0.001% | 217 | 208 | 9 |
| Samoa | 0.001 | 0.001% | 217 | 208 | 9 |
| Sao Tome and Principe | 0.001 | 0.001% | 217 | 208 | 9 |
| Saudi Arabia | 1.172 | 1.253% | 271,584 | 269,945 | 1,639 |
| Senegal | 0.007 | 0.007% | 1,517 | 1,253 | 264 |
| Serbia | 0.028 | 0.030% | 6,502 | 7,516 | (1,014) |
| Seychelles | 0.002 | 0.002% | 433 | 208 | 225 |
| Sierra Leone | 0.001 | 0.001% | 217 | 208 | 9 |
| Singapore | 0.485 | 0.519% | 112,491 | 105,222 | 7,269 |
| Slovakia | 0.153 | 0.164% | 35,546 | 37,789 | (2,243) |

| Members | UN Factor[26] 2019 to 2021 | Indicative IRENA Adjusted Scale of Assessments 2022 (%) | Indicative Assessed Contribution to IRENA 2022 (USD) | Approved Assessed Contribution to IRENA 2021 (USD) | Variance 2022-2021 (USD) |
|---|---|---|---|---|---|
| Slovenia | 0.076 | 0.081% | 17,556 | 19,834 | (2,278) |
| Solomon Islands | 0.001 | 0.001% | 217 | 208 | 9 |
| Somalia | 0.001 | 0.001% | 217 | 208 | 9 |
| South Africa | 0.272 | 0.291% | 63,073 | 85,806 | (22,733) |
| Spain | 2.146 | 2.295% | 497,433 | 575,381 | (77,948) |
| Sri Lanka | 0.044 | 0.047% | 10,187 | 7,307 | 2,880 |
| Sudan* | 0.010 | 0.010% | 2,167 | 2,089 | 78 |
| Sweden | 0.906 | 0.969% | 210,027 | 225,267 | (15,240) |
| Switzerland | 1.151 | 1.231% | 266,815 | 268,484 | (1,669) |
| Tajikistan | 0.004 | 0.004% | 867 | 1,043 | (176) |
| Thailand | 0.307 | 0.328% | 71,093 | 68,479 | 2,614 |
| Togo | 0.002 | 0.002% | 433 | 208 | 225 |
| Tonga | 0.001 | 0.001% | 217 | 208 | 9 |
| Trinidad and Tobago | 0.040 | 0.043% | 9,320 | 7,934 | 1,386 |
| Tunisia | 0.025 | 0.027% | 5,852 | 6,681 | (829) |
| Turkey | 1.371 | 1.466% | 317,751 | 239,881 | 77,870 |
| Turkmenistan | 0.033 | 0.035% | 7,586 | 6,055 | 1,531 |
| Tuvalu | 0.001 | 0.001% | 217 | 208 | 9 |
| Uganda | 0.008 | 0.009% | 1,951 | 2,089 | (138) |
| Ukraine | 0.057 | 0.061% | 13,222 | 24,217 | (10,995) |
| United Arab Emirates | 0.616 | 0.659% | 142,836 | 142,384 | 452 |
| United Kingdom of Great Britain and Northern Ireland | 4.567 | 4.884% | 1,058,590 | 1,051,388 | 7,202 |
| United States of America[27] | 22.000 | 22.000% | 4,768,426 | 4,572,231 | 196,195 |
| Uruguay | 0.087 | 0.093% | 20,157 | 18,581 | 1,576 |
| Uzbekistan | 0.032 | 0.034% | 7,369 | 5,428 | 1,941 |
| Vanuatu | 0.001 | 0.001% | 217 | 208 | 9 |
| Yemen* | 0.010 | 0.010% | 2,167 | 2,089 | 78 |
| Zambia | 0.009 | 0.010% | 2,167 | 1,669 | 498 |
| Zimbabwe | 0.005 | 0.005% | 1,084 | 1,043 | 41 |
| **Sub-Total Assessment from State Members of IRENA** (as at 12 January 2020) | | | **21,674,662** | **21,538,317** | **136,345** |
| European Union[28] | | 2.500% | 555,761 | 535,201 | 20,560 |
| **Sub-Total Core Budget Assessment** | | | **22,230,423** | **22,073,518** | **156,905** |

[27] A maximum assessment rate is established at 22 per cent.

[28] Since 2012, the European Union has committed to paying an annual contribution fixed at 2.5 p cent of the overall core assessed budget

| Members | UN Factor[26] 2019 to 2021 | Indicative IRENA Adjusted Scale of Assessments 2022 (%) | Indicative Assessed Contribution to IRENA 2022 (USD) | Approved Assessed Contribution to IRENA 2021 (USD) | Variance 2022-2021 (USD) |
|---|---|---|---|---|---|
| **IRENA Members assessed after January 2020[29]** | | | | | |
| Austria | 0.677 | 0.699% | 155,407 | 156,695 | (1,288) |
| Central African Republic | 0.001 | 0.001% | 217 | - | 217 |
| Dominica | 0.001 | 0.001% | 217 | 210 | 7 |
| Honduras | 0.009 | 0.010% | 2,167 | - | 2,167 |
| Kyrgyzstan | 0.002 | 0.002% | 433 | - | 433 |
| **Sub-Total Assessment from State Member of IRENA** (assessed after January 2020) | | | **158,441** | **156,905** | **1,536** |
| **Grand-Total Core Budget Assessment** | | | **22,388,864** | **22,230,423** | **158,441** |

[29] Assessed after adoption of the Work Programme and Budget 2020-2021 on 12 January 2020