

INTERNATIONAL RENEWABLE ENERGY AGENCY

Eleventh meeting of the Council

Abu Dhabi, 24 – 25 May 2016

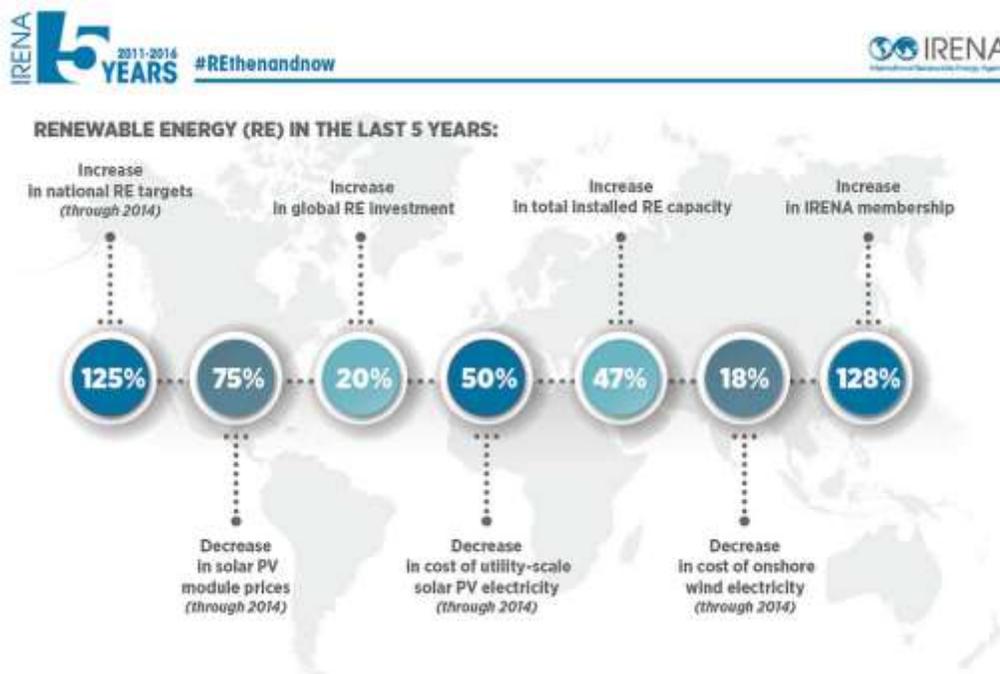
**Progress report of the Director-General
on the Implementation of the Work Programme and Budget for 2016-2017**

Table of Contents

Introduction	2
Thematic Programme Areas	4
I. Planning for the global energy transition	4
II. Enabling investment and growth.....	5
III. Renewable energy access for sustainable livelihoods	7
IV. Regional action agenda.....	8
V. Islands: Lighthouses for renewable energy deployment	10
VI. Gateway to knowledge on renewable energy	11
VII. Enhancing international co-operation and communication and outreach.....	13
VIII. Administration and Management Services.....	15
Thematic Programme Areas	23

INTRODUCTION

1. This report provides an account of the progress the Agency has made over the past three months, since the Assembly adopted IRENA's Work Programme and Budget for 2016-2017. During this period, IRENA reached the fifth year of its existence and has seen dramatic changes take place in the energy sector. Today, the economy of the future is explicitly linked to decarbonising energy, with a wide recognition that this will have to include the accelerated deployment of renewables, coupled with energy efficiency. This is reinforced by countries at the national level, as well as globally by the international framework provided by the Sustainable Development Goals, highlighting that substantially increasing the share of renewable energy in the global energy mix is a key element of the 2030 Agenda. Further, the Paris Agreement acknowledges the need for enhanced deployment of renewable energy and recognises that averting the effects of climate change will require engagement and action on behalf of all stakeholders.

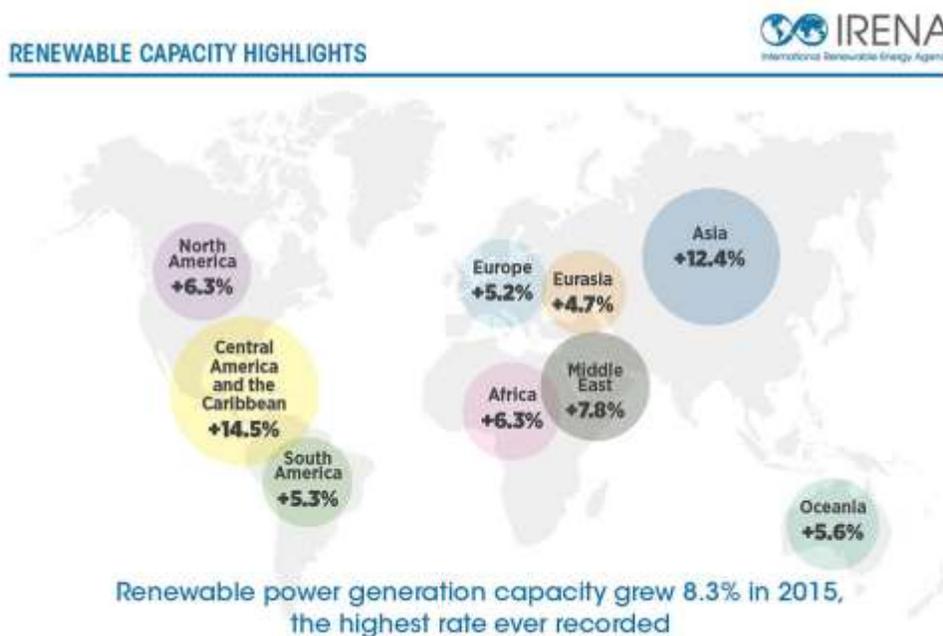


2. International co-operation is accelerating the learning curve, ensuring that renewable energy is widespread and growing, and a critical part of the global solutions agenda. With its near-universal membership, a growing body of work and direct engagement with countries, IRENA plays a central role in the global effort to transform the energy system to meet the economic, social and environmental objectives.

3. Significant progress has been made worldwide. IRENA's latest capacity statistics show that in 2015 alone, 152 gigawatts (GW) of new renewables was added, the highest annual growth rate on record. Coupled with a record USD 286 billion invested in renewables in 2015, this is a strong signal to investors and policymakers that renewable energy is now the preferred option for new power generation capacity around the world. These positive developments are increasingly well known, meaning that countries and other stakeholders are progressively looking for support and advice.

4. IRENA continues to actively engage across different settings and with a wider range of stakeholders. In recent months, this included engagement in the Post Paris Agenda, with the G7 and G20 processes, as well as contribution to the Clean Energy Ministerial. Of note is the continuing development of IRENA's toolkit of *Options to Accelerate Renewable Energy Deployment* for the G20, which builds upon a range of IRENA's programmatic activities tailored to support the needs of G20 countries. With such engagement, IRENA not only contributes to advancing the deployment of renewables, but also gains additional perspective on broader energy and related issues for the benefit of its entire membership. This is becoming increasingly important as the renewables share increases and technology, policy and finance issues become more nuanced.

5. In line with the priorities defined for the current programmatic cycle, IRENA continues to strengthen the business case for renewables, promote regional co-operation and foster partnerships. Such work spans a range of services, from knowledge and advisory support to IRENA's convening role within established thematic areas.



Thematic Programme Areas

I. Planning for the global energy transition

6. The world's energy system is undergoing change at multiple levels. This change is taking hold across all energy-dependent sectors: electricity, heat and transport; and is reshaping ancillary areas such as producers, networks, and markets. To support countries in their efforts to transition to a sustainable energy future, IRENA is analysing system integration and technology outlooks, and advising policy-makers at all levels through roadmaps, energy planning and targeted cities work.

Power system design for renewable energy integration

7. To increase knowledge of energy planning options for the integration of a large share of renewables into the grid, IRENA is conducting analyses on two separate, but related, issues: variable renewables in long-term energy planning; and grid integration planning. Preliminary analysis and findings are being disseminated through workshops, starting with Swaziland hosting the discussion on grid integration planning in April 2016, and an upcoming workshop in Cuba on grid integration and planning. Building upon previous work on islands, IRENA is also refining its methodology for the assessment of grid stability for isolated power systems.

8. IRENA and the International Energy Agency (IEA) have jointly prepared a report entitled *System Integration of Renewables: Implications for Electricity Security*. Submitted to the G7, the report contains three recommendations on how to facilitate variable renewable energy integration. At the time of the writing of this progress report, a ministerial joint statement and possible follow-up requests were in preparation. Complementing this work, IRENA is developing guidelines on interconnectors and energy storage as flexibility measures. In co-operation with Ireland's University College Cork, IRENA is testing an energy market modelling tool, starting with the analysis of the European power system in support of on-going REmap work.

Transforming Energy

9. During the Berlin Energy Transition Dialogue in March 2016, the second edition of the global *REmap* analysis, entitled *Roadmap for a Renewable Energy Future*, was released. This edition presents larger-scope analysis and more detailed findings, including reports on 40 countries, in-depth analysis for emerging technologies, and trends and benefits resulting from higher renewables deployment. It emphasises that the next three to five years present a window of opportunity to trigger the transformation at the necessary scale to meet global climate and development objectives, and provides a number of recommendations on how to accelerate progress. In addition, REmap work on country and regional reports continues. At present, it spans the Dominican Republic, India, Indonesia, Russia, South Africa and the ASEAN region.

10. In a targeted effort to address end-use potential, IRENA has initiated work on renewable energy deployment for district heat and cooling, in co-operation with the University of Geneva, in Switzerland. The Agency has released a handbook, *Boosting Biofuels: Sustainable Paths to Greater Energy Security*, ahead of the 11th Council. To strengthen capacity in the area of bioenergy, two workshops are being prepared. The first will focus on bioenergy technology deployment. The second, hosted by Italian utility GSE and prepared in co-operation with IEA Bioenergy and the Food and Agriculture Organization of the United Nations (FAO), addresses sustainable bioenergy supply chains with the focus on opportunities for agriculture.

Technology status & outlook

11. To gather and disseminate information the status and outlook of renewable energy innovation, IRENA is set to host *Innovation Week* in May 2016. The event, to take place in Bonn, Germany, provides a platform for thought leaders, industry and policy-making frontrunners to discuss the transformational role of renewable energy

in the future power system. This also creates the opportunity to present, and seek feedback on, IRENA's innovation work to date. A follow-up workshop, *Innovation Day*, on 25 May in Abu Dhabi, UAE, is intended to share the outcome of *Innovation Week* and seek member input and feedback on the ongoing work in this area.

12. Work on technology briefs has continued with the recent release of *Wind Power*, the final brief in the IRENA/IEA-ETSAP joint series, and further IRENA analysis underway on electrical vehicles, biogas, biofuels for aviation, and geothermal technologies. Technology outlook analysis is underway for mini-grids, advanced biofuels, offshore wind technologies and solar photovoltaics (PV).

Global Geothermal Alliance

13. The Global Geothermal Alliance (GGA), a platform to increase the geothermal share in the world's energy mix, is progressing to operationalisation. Through engagement by its members and extensive consultation with the GGA constituency, an action plan is in the final stages of preparation to guide the alliance's next steps and future work. Following the launch of the GGA during COP21 in Paris and the adoption of a Joint Communiqué, IRENA is supporting the establishment of the alliance as a global platform for improved dialogue, co-operation and co-ordination between geothermal industry, policy makers and geothermal stakeholders. The GGA at present comprises 41 countries and 26 development and industry partners. With the strong engagement of these alliance members, IRENA has facilitated the development of the plan of action to guide work in the coming period. Simultaneously, IRENA is working to foster geothermal resource development in the Pacific. Supported by GGA member Japan, IRENA is preparing a capacity-development plan for the region in collaboration with key regional stakeholders, such as the Secretariat of the Pacific Community.

II. Enabling investment and growth

14. Transforming the energy system is multifaceted, and decreasing costs and increased recognition of the benefits of renewable energy are powerful drivers of change. IRENA continues to provide timely, objective and reliable information on renewable energy costs and benefits. To enable further growth, IRENA is advising on enabling frameworks and working to support project facilitation. Together, these activities aim to create enabling policy and market conditions for accelerated investment in, and deployment of, renewable energy.

Renewable energy costs

15. IRENA has placed renewed focus on providing up-to-date, accurate, and reliable data on the cost and performance of renewable energy technologies. The *IRENA Renewable Cost Database* includes some 5,000 new projects, broadening the source of data for the costing analysis. A new report analysing the potential for cost reductions of solar and wind technologies is set for release in June 2016 at the Clean Energy Ministerial (CEM) in San Francisco, USA. *The Power to Change: Cost reduction potentials for solar and wind power technologies*, together with IRENA expertise in policy, finance and other relevant areas, will contribute to the CEM campaign "Corporate Sourcing of Renewables", aimed at overcoming sourcing barriers. Another report, *Solar PV: Costs and markets in Africa*, offering analysis of real-world cost data, is to be released in June at Intersolar/EU PVSEC in Munich, Germany.

Renewable energy benefits

16. Building on earlier analysis, the Agency continues to support renewable energy deployment through the analysis of socio-economic benefits. *Renewable Energy Benefits: Measuring the Economics* provides the first quantification of the macroeconomic impact of renewable energy deployment. Analysis shows that doubling the share of renewables in the energy mix by 2030 would increase global GDP by up to 1.1 per cent, improve welfare

by up to 3.7 per cent and support over 24 million jobs in the sector. The report was presented at a plenary session during IRENA's 6th Assembly, together with the latest IRENA work on renewable energy costs, where the value added of IRENA's macroeconomic analysis was highlighted both by member countries and by experts. Analysis has had significant impact, as reflected in strong media support. The report has to date been covered by over 130 news articles and leading media outlets including *The Guardian*, Reuters, Bloomberg, *Forbes*, the *Huffington Post* and *El Pais*, and has triggered related work worldwide. For example, a prominent US-based think tank is considering the report's approach as a basis to assess the macroeconomic impact of renewable energy in India. The report has also gained online traction, for example through the AGORA Portal for Parliamentary Development.

17. IRENA continues to provide an annual estimate of employment in the renewable energy sector. The *Renewable Energy and Jobs – Annual Review* series is a key IRENA output with considerable visibility in both regional and international media. The 2015 edition has been cited in over 600 news articles and referenced in reports by international and other organisations, including UNEP and REN21. The 2016 edition is set for release in May.

18. While the *Annual Review* provides an overview of the status and trends in renewable energy employment, IRENA's forthcoming study *Renewable Energy Benefits: Leveraging Local Industries* explores how benefits such as jobs can be maximised through existing industries to develop a local sector for renewables. It analyses the activities required to create a domestic sector that can enable new opportunities in solar and wind as well as the pre-requisites to undertake activities locally, in terms of manufacturing capacities, skills, availability of raw material, access to finance and the enabling conditions for the development of the sector.

Policy options to accelerate deployment

19. Published in January 2016, *Renewable Energy Market Analysis: The GCC Region* provides in-depth insights on best practices in policy making, project development and financing that are driving the transition towards more sustainable energy systems in the region. Record low prices for solar PV in Dubai have renewed the enthusiasm for an accelerated uptake of renewable energy in the Gulf Co-operation Council (GCC). Report findings have been presented at several platforms, such as the World Future Energy Summit (WFES 2016), the Clean Energy Business Council, the Middle East Solar Industry Association, MENAREC 2016 and Chatham House. The findings have also enriched the public discourse on renewable energy in the GCC region, earning over 100 mentions in local and international media.

20. Latin American renewable energy policy developments bring valuable insights for energy markets around the world. Themes of specific relevance to the region, such as the complementarity between hydropower and other renewable energy technologies, are paving the way for a greater share of renewables in the energy mix. IRENA's report *Renewable Energy Market Analysis: Latin America* captures the wealth of knowledge and experience embedded in the region and identifies emerging renewable energy trends and themes at the intersection of public policy and market development. The report has benefited from input provided by members and regional experts. It is to be presented at a special event during the 11th meeting of the IRENA Council.

Financing renewables

21. With the goal of increasing knowledge of, and access to, reliable and transparent investment information, IRENA has made available online, and continues to update, key information on renewable energy investment trends. Data on public investment flows highlights the international financial flows to renewable energy projects from selected financial institutions since 2009. In addition, the Frankfurt School - UNEP Collaborating Centre and Bloomberg New Energy Finance provided the latest datasets for *Global Trends in Renewable Energy Investment 2016*, also available on the IRENA website.

22. A key renewable energy finance report, *Unlocking Renewable Energy Investment: The Role of Risk Mitigation and Structured Finance*, has been finalised and will be presented at a meeting during the 11th Council Meeting. The recommendations of the report were developed in consultation with stakeholders at WFES 2016.

Project facilitation

23. The Sustainable Energy Marketplace, an online platform launched in December 2015, has expanded rapidly, attracting project sponsors and developers, financial institutions and service and technology providers. The Marketplace currently encompasses some 150 projects seeking funding of approximately USD 8 billion covering countries in Africa, Latin America and the Caribbean. IRENA is pursuing strategic partnerships with organisations such as Power Africa, the Private Finance Advisory Network (PFAN) and the Inter-American Development Bank (IDB) to further support the development and funding of projects. For example, IRENA has issued a call for proposals in co-operation with IDB to allocate project development grants totalling USD 400,000 for project developers in Latin America and the Caribbean. A potential examination of the expansion of the Platform to cover other geographic regions could be envisioned.

24. To further foster the design of sound and bankable project proposals, the Project Navigator platform has been expanded to include technical concept guidelines for onshore wind, as well as for small hydro and utility-scale PV. Technical concept guidelines on residential PV and mini-grids are also under preparation.

III. Renewable energy access for sustainable livelihoods

25. Universal access to modern energy services is key to alleviating poverty and stimulating economic growth. There is an opportunity to design an efficient new system based on the modular and decentralised nature of renewable energy, which can have a multiplier impact in terms of reduced health effects, improved livelihoods, poverty alleviation, job creation, gender equality and enhanced access to water and food.

Decentralised solutions for access

26. IRENA continues to analyse policies and regulatory frameworks to promote mini-grid development with the involvement of the private sector. Stakeholder feedback on this work has highlighted several needs, including dedicated policy and regulatory frameworks for the mini-grid sector, clarity on the role of mini-grids in electrification strategies, regulations that allow the adaptation of mini-grid business models to local conditions, and measures to de-risk the transitory phases. Partial risk guarantee schemes and tailored debt funds were highlighted as possible instruments for mini-grid project financing. The importance of moving towards regional harmonisation of equipment and technology standards was noted, along with the need to focus on building local capacities.

27. In regard to related technological developments, IRENA is pursuing studies on decentralised energy solutions in agriculture and the technology outlook for mini-grids. The forthcoming *Renewable Energy Benefits: Decentralised Solutions in Agriculture* presents technologies that can be applied to increase yields, bolster product quality, and reduce the cost of production and the time spent by women and children on manual labour. The study underlines the health benefits resulting from improved food preservation and security. *Renewable Energy Innovation Outlook: Renewable Mini-Grids* presents the outlook for mini-grids to 2035 and the key role of innovation to increase deployment.

IV. Regional action agenda

28. Regional co-operation is a key element to bring about efficiencies and economies of scale in deployment, in order to facilitate a diverse mix of renewable energy sources, overcome technology barriers, increase security of supply and meet growing demand. Common regional action agendas also empower countries in their pursuit of development and climate objectives. IRENA supports these goals at the regional level by linking national plans and potential through Clean Energy Corridor initiatives, and at the country level through targeted advisory support and services.

Africa clean energy corridor

29. IRENA continues its work to increase the integration of renewables in Eastern and Southern Africa power pool countries. Zoning results are being incorporated into regional planning in East and South Africa power pools, with site suitability assessments to guide investments in renewable energy in selected Africa Clean Energy Corridor countries. IRENA is also working with key stakeholders to translate zoning results into relevant renewable energy projects to be considered in the revision of the Programme for Infrastructure Development in Africa (PIDA), as well as to incorporate these into the Sustainable Energy Marketplace. At the country level, energy planning capabilities are being enhanced to enable the integration of solar and wind potential into national energy master plans, most recently in Swaziland.

30. Concrete results from the Africa Clean Energy Corridor initiative have spurred interest from West African countries to implement a similar concept. The West Africa Clean Energy Corridor (WACEC) supports the accelerated development of utility-scale renewable electricity and promotes cross-border trade based on renewable energy targets set in regional and national plans. An action plan for the implementation of the initiative has been developed and was validated at the technical level through a stakeholder consultation process with key regional partners in April 2016 in Dakar. The WACEC action agenda is expected to be endorsed by the West African Energy Leaders' Group (W-AELG).

31. Considering the key role of regulatory frameworks in advancing the regional deployment of renewables, IRENA is advising and supporting regulatory decision-makers in the Southern African region, with pilot schemes initiated in Namibia, Tanzania, and Zimbabwe. The first stakeholder consultation workshop in Namibia in April 2016 identified key issues that need to be considered to accelerate the deployment of renewables at scale and in the long term.

32. In addition, IRENA and the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), in collaboration with the International Atomic Energy Agency (IAEA) and the United Nations Framework Convention on Climate Change (UNFCCC), have initiated a six-month capacity development programme starting in October 2015, to build and enhance long-term energy planning capacity in ten members of the Economic Community of West African States (ECOWAS): Benin, Burkina Faso, Cabo Verde, The Gambia, Guinea, Liberia, Niger, Senegal, Sierra Leone, and Togo. The programme uses IRENA's system planning tool for West Africa, SPLAT-W, which helps users assess economic, technical and environmental perspectives in the future energy mix.

Central America clean energy corridor

33. Following the endorsement of the strategy for the Clean Energy Corridor Central America (CECCA) initiative by the region's energy ministers in December 2015, IRENA is translating the strategy into actionable activities. In close consultation with regional and national stakeholders and development partners, scoping is being finalised for the "technical enabling" and "regulatory enabling" components of the strategy, with

subsequent implementation planned at regional and national levels. Panama has been identified as the pilot country.

Emerging regional corridors

34. IRENA is increasing its engagement with regional institutions and countries in Southeast Asia to support regional market integration and the achievement of renewable energy targets adopted for 2025 in the Association of Southeast Asian Nations (ASEAN). An important part of this engagement is the adaptation of IRENA's corridor concept to the ASEAN context, in order to develop an action agenda tailored to the region's circumstances and needs. IRENA collected preliminary feedback, mainly from ASEAN power utilities, during a first consultative workshop held during the ASEAN Centre for Energy meeting in Kuala Lumpur, Malaysia, at the end of 2015. Building on this, IRENA is planning a second consultative workshop in June 2016 in Thailand, in order to convene key regional and national stakeholders to identify priority areas and needs for the development of the ASEAN corridor action agenda.

Enabling regional action

35. As part of the implementation of the Pan-Arab Renewable Energy Strategy 2030, IRENA is finalising the preparatory phase of the Pan-Arab Clean Energy (PACE) initiative to promote the integration of a greater share of renewable electricity in regional power systems. A comprehensive gap-analysis report focuses on the Maghreb region, based on which the Agency will conduct stakeholder consultations to identify pillars for implementation.

36. To bolster renewable energy efforts in Southeast Europe, IRENA is developing a study on the assessment of technical potential for cost-effective renewable power generation by 2020. A joint IRENA-Energy Community workshop was held in Vienna, Austria, in March 2016 to collect feedback on the preliminary findings of the study. The workshop gathered more than 70 representatives from government, public and private organisations, development partners, and non-governmental entities, with key regional actors expressing interest in stronger collaboration with IRENA. A follow-up meeting was held in April 2016 to further discuss how IRENA can best support Southeast European countries, leveraging the work of other partners active in the region.

37. IRENA has been assessing its engagement with Central Asia. As a follow up to a meeting with representatives from the region, regional stakeholder consultation meetings are planned to identify an action agenda to support the deployment of renewables in order to increase expertise and meet capacity requirements. IRENA also participated in the Second International Participants Meeting ahead of the Expo 2017 in Astana, Kazakhstan. Discussions and activities continue to solidify IRENA's presence at the Expo and further promote the renewable energy agenda in the region.

Country support and advisory services

38. IRENA continues to support countries in assessing policies, resource potential and technologies for renewable energy deployment. Such support includes facilitating Renewables Readiness Assessment (RRA) consultations and providing targeted advisory services for the implementation of RRA recommendations. Since January 2016, the outcome of RRA Mongolia was released in co-operation with the country's Ministry of Energy on the side-lines of the Northeast Asian Energy Connectivity Workshop. The RRA process in Zimbabwe was completed and the report is being finalised. The process in Tanzania is also underway in close collaboration with local stakeholders, most recently via an RRA workshop in March 2015. RRA Pakistan is ongoing, with two technical workshops being organised in co-operation with the World Bank-ESMAP (Energy Sector Management Assistance Program) team operating in the country. IRENA is also completing RRAs for Antigua and Barbuda, Egypt, the Philippines and Tunisia.

39. IRENA, together with the German government and regional partners, supported the organisation of the sixth edition of the Middle East Renewable Energy Conference (MENAREC 6) hosted by Kuwait on 4-6 April 2016 under the banner theme “Renewable Innovations Towards Sustainable Energy”. With broad participation from regional, international and national renewable energy stakeholders, the conference highlighted the Middle East and North Africa (MENA) region’s high renewable energy potential, which could help secure the energy supply, meet strong energy demand growth, and contribute to the decarbonisation of the sector. On the side-lines of the conference, IRENA and the Kuwait Institute for Scientific Research (KISR) organised an expert workshop on power purchase agreements (PPAs) for renewable energy. MENA experts from the private sector, government and industry also discussed how regulatory and policy measures influence project risks.

40. In line with strategic priorities, IRENA continuously engages with a broad range of partners to provide comprehensive and long-lasting support and advice to countries and regions. Following a joint study by IRENA and European Investment Bank (EIB) to assess renewables manufacturing potential in Egypt, Morocco and Tunisia, IRENA has set out to expand such assessments to cover Jordan, Lebanon and the UAE in co-operation with the United Nations Economic and Social Commission for Western Asia (UNESCWA).

V. Islands: Lighthouses for renewable energy deployment

41. Islands are showing increasing ambition in the transformation of their energy systems, with some aiming for a complete transition to renewables in the immediate future. To support this transformation, IRENA is providing knowledge, tools, services and a platform for co-operation to facilitate the planning for, and implementation of, renewable energy solutions.

42. IRENA continues to support and manage the SIDS Lighthouses Initiative, which now has 34 Small Island Developing States (SIDS) as members, along with 19 development partners and other entities. In support of the development of policy, regulatory and institutional and technology frameworks, IRENA and the Government of Japan hosted a training workshop for nine Pacific SIDS and the Maldives to explore enabling environments to support deployment of renewable energy. Special emphasis was placed on project finance (including by the private sector), financial modelling and project negotiation tactics.

43. Targeted advisory services, such as through roadmaps and grid studies, have been key for several islands. A study on renewable energy desalination opportunities for Kiribati was completed, in addition to the Kiribati Integrated Energy Roadmap (KIER). Three more such roadmaps are under development, for Barbados, the Federated States of Micronesia, and Palau.

44. An important part of island work relates to the integration of variable renewables into the existing grid, for which IRENA is providing timely and practical support and capacity-building services. For example, following IRENA’s recommendations, Samoa is implementing the necessary infrastructure upgrades to allow for reliable grid operation with planned PV projects. A grid study for the Cook Islands has supported the implementation of Cook Islands Renewable Energy Charts for the island of Aitutaki. A grid integration study in Antigua has given policy makers and the public utility insights on the amount of variable renewable energy that can be implemented on the island without major infrastructure upgrades.

VI. Gateway to knowledge on renewable energy

45. In 2016, IRENA has further increased its efforts with respect to disseminating objective, timely, and authoritative information in a targeted manner to reach the right audiences. Work to date has centred on expanding and publishing renewable energy statistical information, resource potential and standards and quality infrastructure analysis, supported by the further development of the IRENA online knowledge portal.

RE Statistics

46. A second edition of *Renewable capacity statistics* was published in March 2016, featuring data on the capacity of electricity generation plants that use renewable energy as their primary energy source. Data covers the period 2000 to 2015 and contains 13,546 data points from more than 200 countries and territories, covering all sources of renewable energy. The most recent data shows that renewable energy capacity additions reached a new record in 2015, with more than 150 GW (an 8.3% growth) added globally. In addition to the publication, the online database can now be queried and data downloaded through REsource webpages. Building local capacities in data collection, IRENA has also published *A guide to statistical capacity needs assessment* and *A field guide to measurement of small-scale biogas capacity and production*. IRENA continues to receive enquiries from national statistical offices about methods for measuring renewable energy and is responding by producing a series of technical notes on measurement techniques and methodologies.

The Global Atlas

47. The increased momentum of renewables deployment has led to a repositioning of the IRENA Global Atlas to provide services that support increased project bankability. Stakeholders of the Global Atlas met during the 2016 WFES to discuss the next priorities for the initiative, and reformulated the vision to focus on providing concrete data and analysis to support a larger flow of projects. In support of increased project development, IRENA has completed suitability analyses for grid connected and off grid wind and solar technologies in Latin America and the GCC, with Southeast Europe in final stages of completion. A suitability analysis looks at resource potential, distance to grid infrastructure, population density, topography, land cover and protected areas and ranks technical suitability to develop a project, ranked between 0 and 100% for every kilometre. The suitability score is then mapped to indicate the location of highest interest for project developments. Further to this analysis, IRENA has computed the equivalent technical potential for Latin America in USD and GW, the technical potential for the GCC, as well as a statistical analysis of the technical potential for Southeast Europe.

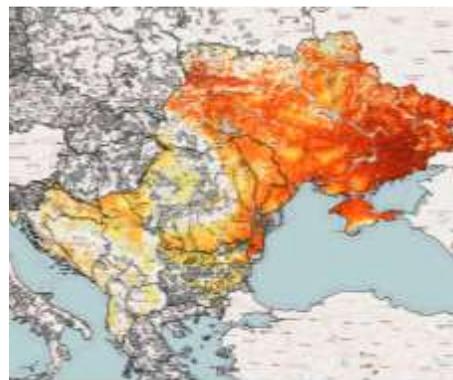


Figure 1: Suitability analysis for Southeast Europe. Suitability scores for grid-connected wind power, not further than 75 km from the nearest grid. The map also indicates the main protected areas.

Quality infrastructure, standards and patents

48. IRENA has continued work on standards and quality infrastructure with analysis initiated for technical quality infrastructure for utility scale solar PV. This work is being expanded based on the feedback received, noting that countries, private sector and other stakeholders use IRENA's work to guide local policy making. For example, analysis on *Quality Infrastructure for Solar Water Heaters and Small Wind Turbines* (2015) is guiding work on standards and quality control for technologies in Mexico, Tanzania, and South Africa. IRENA is also strengthening private sector engagement in this area. In May 2016, IRENA will participate in a side event at the Annual Meeting of the Asian Development Bank, organised by the German Metrology Institute, to discuss the

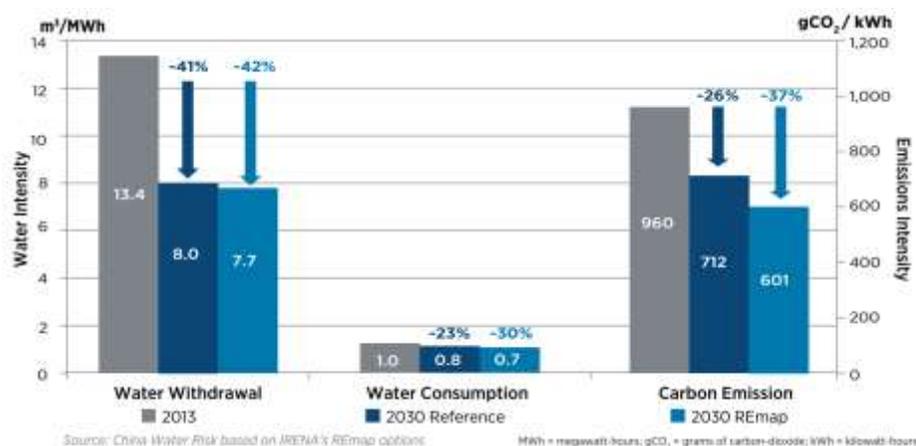


Figure 2: Water and carbon intensity of power generation (2013-2030)

use of quality control and standards to mitigate technical risk. This event will provide a unique opportunity to showcase the role of quality control and standards in risk mitigation, promoting increased financial flow to renewable energy projects.

Enhancing environmental and resource sustainability

49. In March 2016, IRENA and China Water Risk jointly published a brief on *Water Use in China's Power Sector: Impact of Renewables and Cooling Technologies to 2030* that examines the impact of China's power sector on water and climate in 2030. China has announced its plan to reduce carbon emissions by sourcing 20% of primary energy consumption from non-fossil fuels by 2030. The analysis shows that a 26% share of modern renewables, which by 2030 is both technically and economically feasible, would not only reduce emissions-intensity of power generation by 37%, but also reduce water-intensity by 42% due largely to the water saving potential of solar PV and wind. The magnitude of these effects reaffirms the importance of integrated water and energy decision-making in the power sector. The brief adds to an expanding knowledge base on the water-related benefits of renewable energy, further strengthening the business case for renewables in water-scarce countries and regions. Since its launch, the brief has been widely cited across media platforms, with findings presented at the CEM7 Preparatory Meeting in China.

Knowledge hub

50. In response to feedback received from Members and external stakeholders, IRENA's online knowledge hub REsource was upgraded with a continuous focus on integrating the most recent and accurate content available. The data section of REsource was expanded to become the Agency's interactive data centre, comprising the latest statistics on renewable energy power capacity, finance, costing, employment, and education. To continuously improve the REsource platform, and provide transparent, easily accessible data and information on renewable energy, IRENA is developing a renewable energy Tagger, a tool which creates connections between related words and their definitions building a universal basis of terminology. A universal, common base of renewable energy terms across the international community will facilitate dialogue among stakeholders, allow for increased efficiency when learning or searching information online and improve flow and understanding of information worldwide. The renewable energy Tagger is being developed in collaboration with REEEP and with the support of voluntary resources from the government of Germany.

Multi-stakeholder engagement

51. Facilitated by IRENA, the Coalition for Action has continued its work under the guidance of a new steering group. Its members include 17 members from civil society, 13 industry associations, nine companies, four international entities, and one public-private partnership. The Coalition activities include the development of a consumer label for renewable energy, *REmade*, joint communication and outreach activities, and a newly initiated solar energy task force. Work has also been initiated on reaching out to those who are aiming for 100% renewable energy, and discussions are underway on how to best use the Coalition as a vehicle for closer engagement between private sector actors and the IRENA membership.

VII. Enhancing international co-operation and communication and outreach

52. The 2016-2017 biennium offers the opportunity to deepen and broaden IRENA's engagement, communication and outreach efforts to achieve greater impact and reach wider audiences. Building on the momentum of the climate "solutions agenda", IRENA's communication and outreach strategy in 2016 is focusing on positioning renewable energy as the solution to a host of economic, social and environmental issues.

Facilitating international co-operation

53. Held only six weeks after the adoption of the Paris Agreement, the sixth session of the Assembly was the first inter-governmental meeting after COP21. It presented an important platform for countries to discuss how to meet the ambitions resulting from the Agreement and the adoption of the Sustainable Development Goals, in particular Goal 7 on Energy. The Assembly was attended by 1050 participants, including 52 Heads of State / Government and Ministers and other government officials from 150 countries. Also in attendance were many key partners of the Agency. On this occasion, the COP21 Presidency delivered a special address on post-Paris implementation and the President of the United Nations General Assembly spoke on the global sustainability agenda. This focus continued throughout the two Ministerial Roundtables which facilitated a high-level exchange on concerted action to advance the climate solutions agenda and the need to mobilise necessary financing. Throughout the Assembly and the ensuing World Future Energy Summit, the Agency hosted a number of programmatic meetings which provided an opportunity to hold focused discussions on recent renewable energy developments and to present various facets of IRENA's ongoing and planned initiatives.

54. On the day preceding the sixth session of the Assembly, IRENA held its first meeting of legislators, the "Legislators Forum 2016", which was attended by 21 legislators from around the world. Legislators exchanged best practices and experience on the deployment of renewable energy and solutions that enable countries to meet their domestic energy needs. The debate focused on appropriate support mechanisms to deploy renewable energy. Legislators also discussed how the Agency could support their work and concluded the meeting with defining key enablers that support an accelerated deployment of renewable energy worldwide. Many legislators also attended the sixth Assembly and received a comprehensive overview of the Agency's activities and initiatives.

Dissemination of knowledge, data and analysis

55. Since January 2016, the Secretariat has launched on average one focused communication campaign per month, allowing sufficient time to support targeted outreach efforts and conduct smaller-scale communication efforts concurrently. In January, the Agency launched a communication strategy to support the sixth Assembly and its related activities and publications. These included six multi-lingual press releases, four press events, an #IRENA6A social media campaign, infographics, promotional materials, and a hosted media programme with members of the international press. In the context of the sixth Assembly, the Agency also co-hosted the fourth IRENA-Financial Times Question Time Debate at the IRENA headquarters. The event, attended by over 300

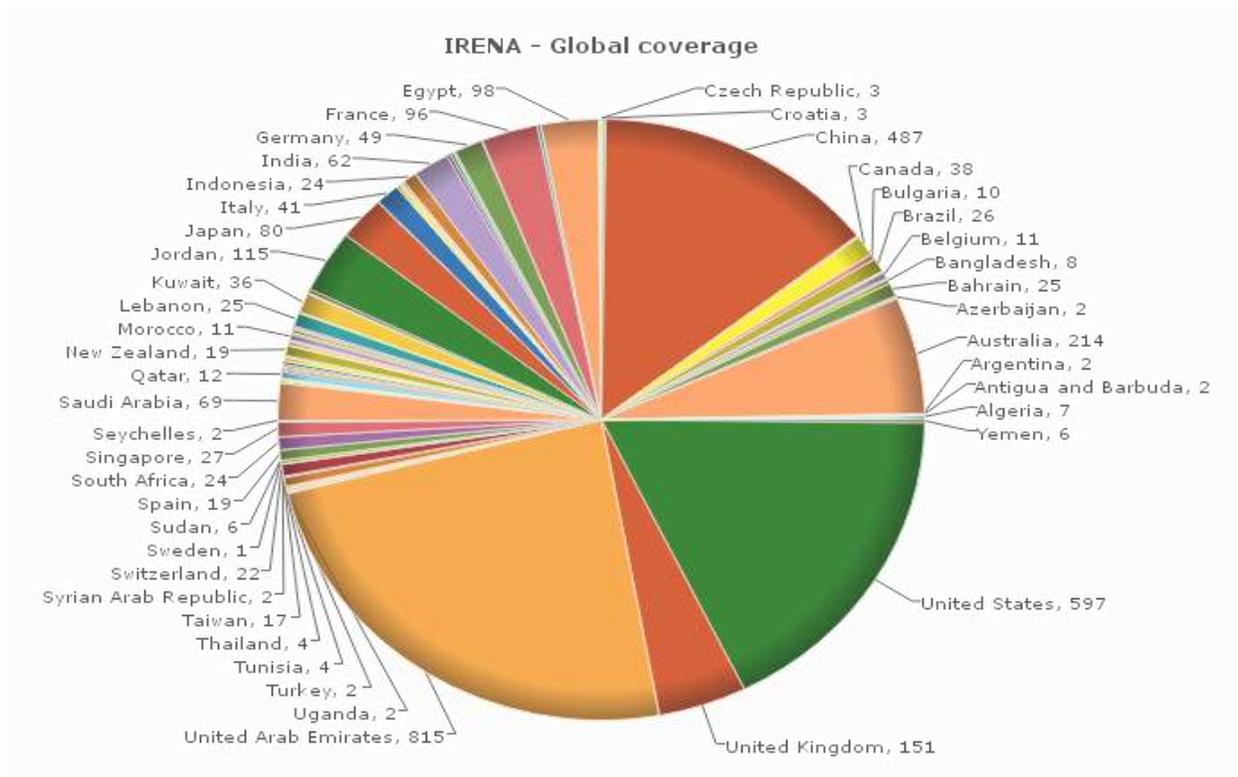


Figure 3: IRENA Global Coverage 2016 (As of 10 April) – 3,411 articles in 91 countries

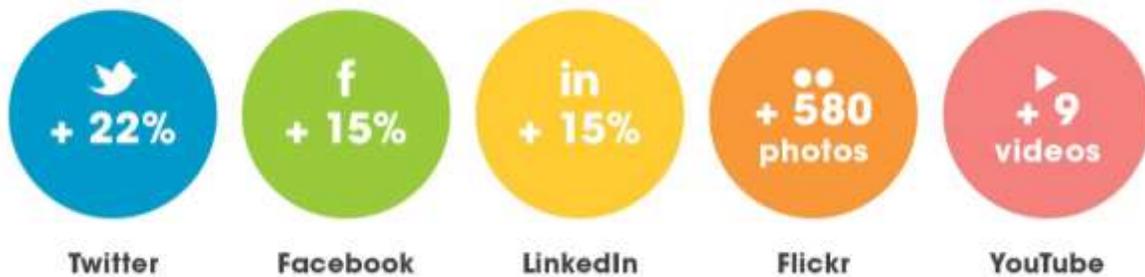
international stakeholders focused on how to take climate action to the next level by scaling up renewables and included a special address by UN Secretary General Ban Ki-moon.

56. In April, the Agency began the celebration of its 5th anniversary by highlighting renewable energy successes over the past five years. This included a multi-lingual press release, the launch of an international photo competition, a call for submissions for Member renewable energy success stories, and the launch of a 5th anniversary data dashboard and associated #REthenandnow social media campaign. Smaller campaigns have also been conducted for the launches of different IRENA reports and brief, and such campaigns have become an integral part of the programmatic output.

57. As a part of the Agency’s various communication campaigns thus far in 2016, the Secretariat has distributed 30 press releases and newsroom posts in seven different languages (Arabic, Chinese, English, French, German, Mongolian and Spanish), conducted six press events, created five videos and designed 50 infographics. These efforts have resulted in more than 3,400 articles on IRENA in publications in 91 countries including AFP, AP, Bloomberg, CNN, China Daily, El Pais, Guardian, the Huffington Post, Le Monde, O Globo, Reuters, Time Magazine, and Xinhua. This is a 46% coverage increase from the same period in 2015. Countries with the most IRENA coverage so far in 2016 include the United States, China, the United Arab Emirates, Australia and the United Kingdom.

58. IRENA has also continued to increase its activity and grow its communities across its social media platforms. Since the beginning of 2016, the Agency’s followers have increased by 22% on Twitter, 15% on Facebook and 15% on LinkedIn. In addition, 580 photos were added to Flickr and 9 institutional videos were added to YouTube. The Secretariat also started a new Instagram account, adding to its existing social media portfolio.

IRENA SOCIAL MEDIA IN 2016 (AS OF APRIL)



59. In an effort to expand and amplify its reach, IRENA continues to strengthen existing and establish new strategic communications partnerships and networks. Two new partnerships with multiplier organisations have significantly contributed to the impact of IRENA’s global media relations activities, improving press coverage for select reports in Europe, China, Australia, and the Americas. In addition, work continues on the development of communications networks through the Coalition for Action and IRENA membership.

Membership, Permanent Representation

60. In 2016, two new Members joined the Agency: Saint Lucia and Thailand bringing the total number of Members to 147. In 2016, the number of Permanent Representatives accredited to the Agency rose from 37 to 39.

VIII. Administration and Management Services

61. In support of the Agency’s programmatic work, IRENA has continued to provide comprehensive and efficient business processes that foster accountability and transparency.

Finance and budget

62. As an essential part of the work of the Agency, finance and budget services continue to be provided to Members, staff and other internal and external stakeholders. Services include the preparation of the audited financial statements for the Agency and the Staff provident Fund, issuance of annual bills and regular follow up with Members for the collection of outstanding assessed contributions, registering and allotting voluntary contributions, on-time settlement of vendor and supplier invoices, and regular internal support services including payroll, budget utilisation updates and general advice to support the sound financial management of the Agency. During the first quarter of 2016, the Agency closed the 2015 books of accounts of the Agency and the Staff Provident Fund, and prepared the audited financial statements. These received clean audit opinions from the external auditors, as presented in documents C/11/5 and C/11/4 respectively.

Information and Communication Technology

63. In addition to core services, ICT supported the capturing and dissemination of data, information and knowledge of the Agency’s work through external and internal portals.

64. With ICT becoming a business critical resource for the organisation, and in order to enhance the availability and resilience of ICT services, IRENA has adopted Cloud-based infrastructure and services. Cloud infrastructure

provides increased operational flexibility with no major capital investments needed for ICT infrastructure. This shift will also be reflected in the upcoming deployment of the enterprise resource planning (ERP) system.

Procurement

65. The Agency continues to implement its procurement planning every year to ensure cost-effective solicitation of goods and services. To ensure transparency, fairness, openness and competitiveness, procurement opportunities are being posted on IRENA's website. Through continuous market research and online registration, IRENA's vendors' database has been further developed and now includes more than 800 vendors. 15 Long-term Agreements (LTA) for various services were entered into or renewed, as of the date of this report.

Human Resources

66. Attracting, retaining and developing staff remains a priority. In this respect, the Agency has expanded its outreach activities to attract more qualified candidates.

67. Between 1 January 2016 and 10 April 2016, 14 vacancies for Fixed Term and Temporary Appointment and Junior Professional Associates were advertised for which over 2,300 applications were received.

Table 1: Approved and filled/under recruitment posts by level as of 10 April 2016:

Level	Approved	Filled or Under Recruitment
ASG	1	1
D-2	1	1
D-1	5	5
P-5	17	13
P-3/4	37	36
P-2/1	3	3
Sub-total Professional and above	64	59
General Services	26	24
Total	90	83

Figure 5: Gender Balance (based on filled posts) as of 10 April 2016

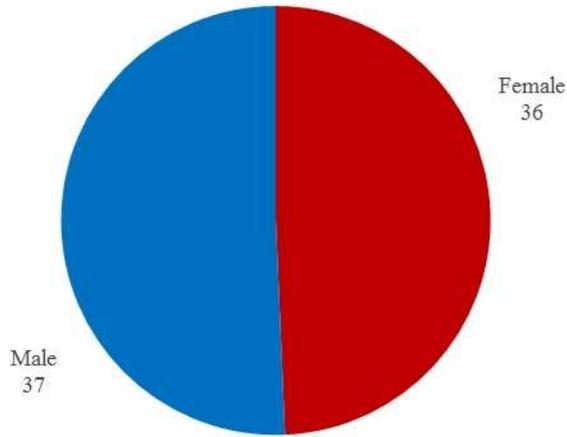


Figure 5: Staffing Status as of 10 April 2016

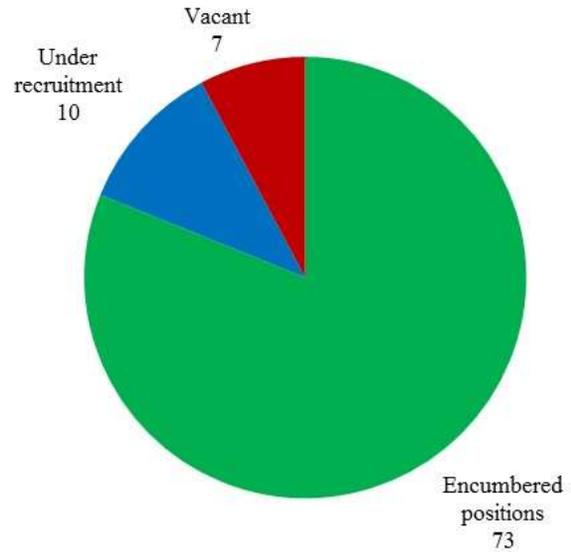


Figure 10: IRENA Staff Nationalities (based on filled posts) as of 10 April 2016

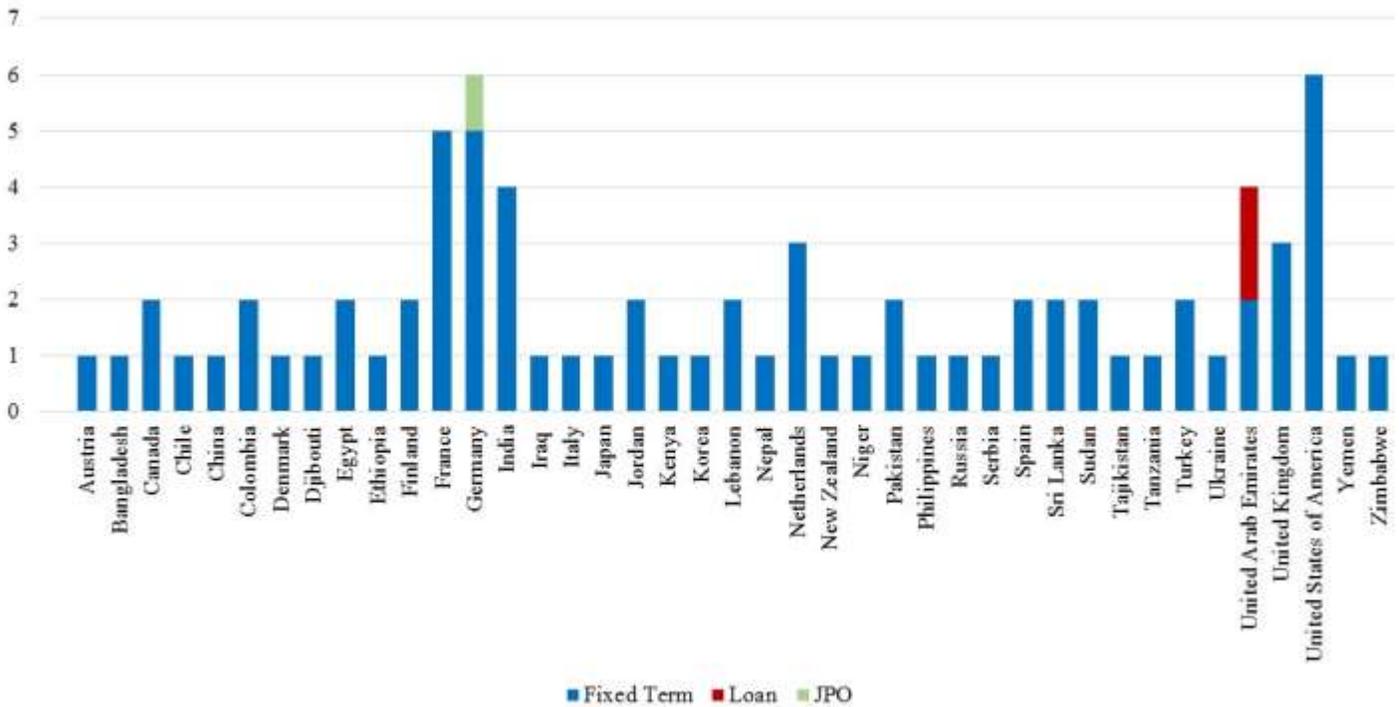


Table 2: Junior Professional Officers (JPO) and Loaned Staff

Division	Title	Loaned from	JPO
SMED	Liaison and Protocol Officer	UAE	
SMED	Advisor, Outreach and Communications	UAE	
KPFC	Associate Programme Officer, Policy (JPO)		Germany

Table 3: 2016-2017 Biennium budget utilisation by funding source (in USD thousands)

	2016-2017 Biennium Proposed Budget	Utilisation as at 15 April 2016 ¹	
		Commitments and Expenses	Proportion of 2016- 2017 Biennium Budget
Assessed Contributions (Core Budget)	42,934	13,153	31%
Core Non-assessed UAE Contribution:			
UAE Support	5,000	848	17%
Governing Body Meetings	3,200	1,310	41%
Subtotal UAE Contributions	8,200	2,158	26%
Core Non-Assessed Germany Contribution:			
Innovation and Technology	10,000	2,020	20%
Subtotal Germany Contributions	10,000	2,020	20%
Total Core Non-Assessed	18,200	4,178	23%
Grand Total	61,134	17,331	28%

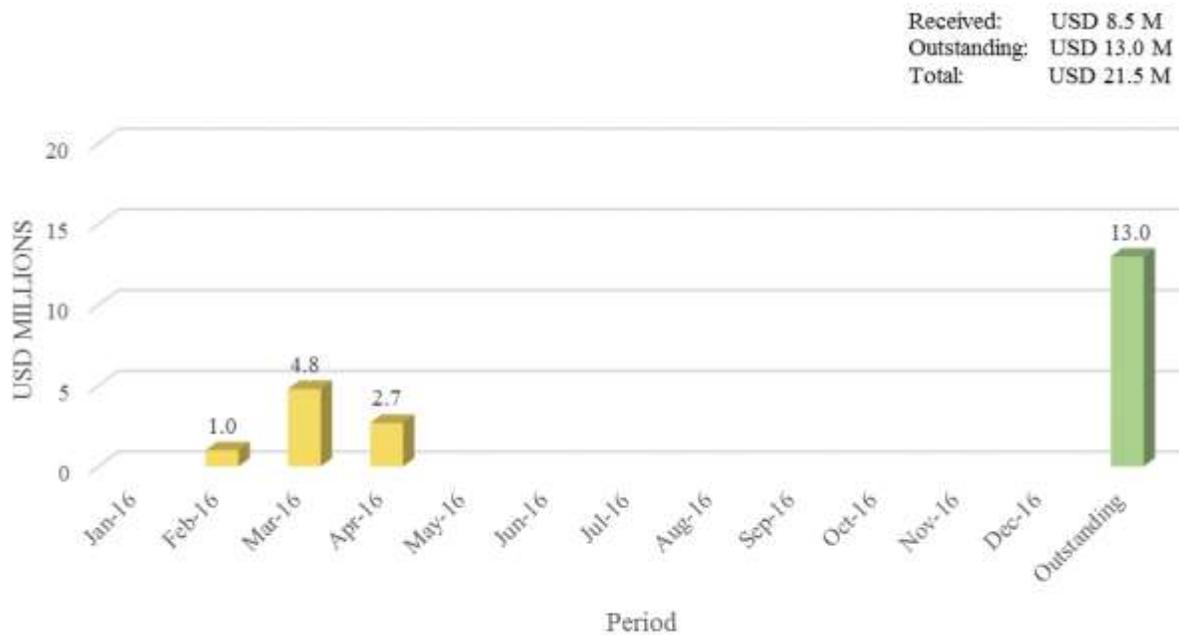
¹ Amounts include actual expenses incurred to-date and commitments related to contracts where funds have been obligated and are to be expensed during 2016, including staff costs which have been committed until the end of 2016

Table 4: 2016-2017 Biennium budget utilisation by Thematic Area (in USD thousands)

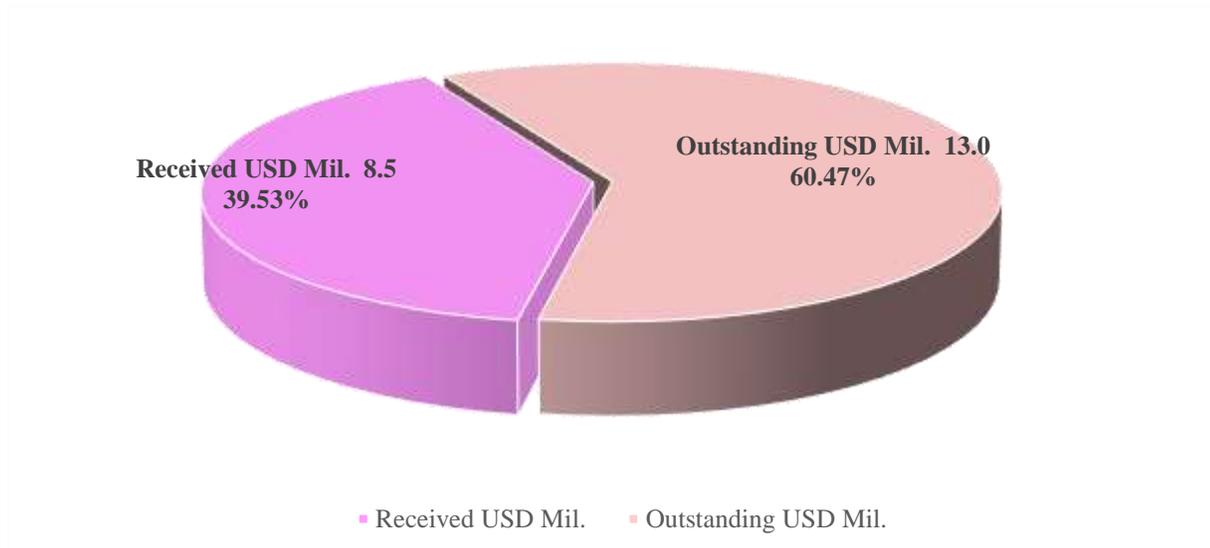
Division/Thematic Area	Combined core assessed and non-assessed contributions		Budget Utilisation as at 15 April 2016	
	Amount (USD)	Proportion of Total	Amount (USD)	Proportion of Biennium Budget
A. Strategic Management and Executive Direction	14,037	23%	3,394	24%
Governing Body Meetings	3,200	5%	1,311	41%
Subtotal	17,237	28%	4,705	27%
B. Thematic Programme Area				
Planning for the renewable energy transition	5,771	9%	1,072	19%
Enabling investment and growth	8,871	15%	1,828	21%
Renewable energy access for sustainable livelihoods	2,060	3%	425	21%
Regional action agenda	8,004	13%	2,415	30%
Islands: lighthouses for renewable energy deployment	911	1%	281	31%
Gateway to knowledge on renewable energy	7,105	12%	1,991	28%
Subtotal	32,723	54%	8,011	24%
C. Administration and Management Services	11,174	18%	4,614	41%
Total Estimated Requirements	61,134	100%	17,331	28%

<i>Non-assessed core contributions in 2016</i>		
<i>as of 15 April 2016, in USD</i>		
Budgeted Voluntary Contributions		
	2016	
	Commitments	Receipts
GERMANY		
IRENA Innovation and Technology Centre	4,900,000.00	2,450,000.00
UAE		
UAE Support	2,500,000.00	1,250,000.00
Governing Body Meetings	1,600,000.00	1,600,000.00
Subtotal UAE Contributions	4,100,000.00	2,850,000.00
Total Budgeted Voluntary Contributions	9,000,000.00	5,300,000.00
Additional Voluntary Contributions		
	2016	
Donor/Project	Commitments	Receipts
UAE-ADFD	1,500,000.00	-
Japan	585,000.00	585,000.00
Subtotal	2,085,000.00	585,000.00
Fund for Developing Countries Representatives		
	2016	
Donor	Commitments	Receipts
UAE	200,000.00	200,000.00
Subtotal	200,000.00	200,000.00
Total Additional Voluntary Contributions	2,285,000.00	785,000.00

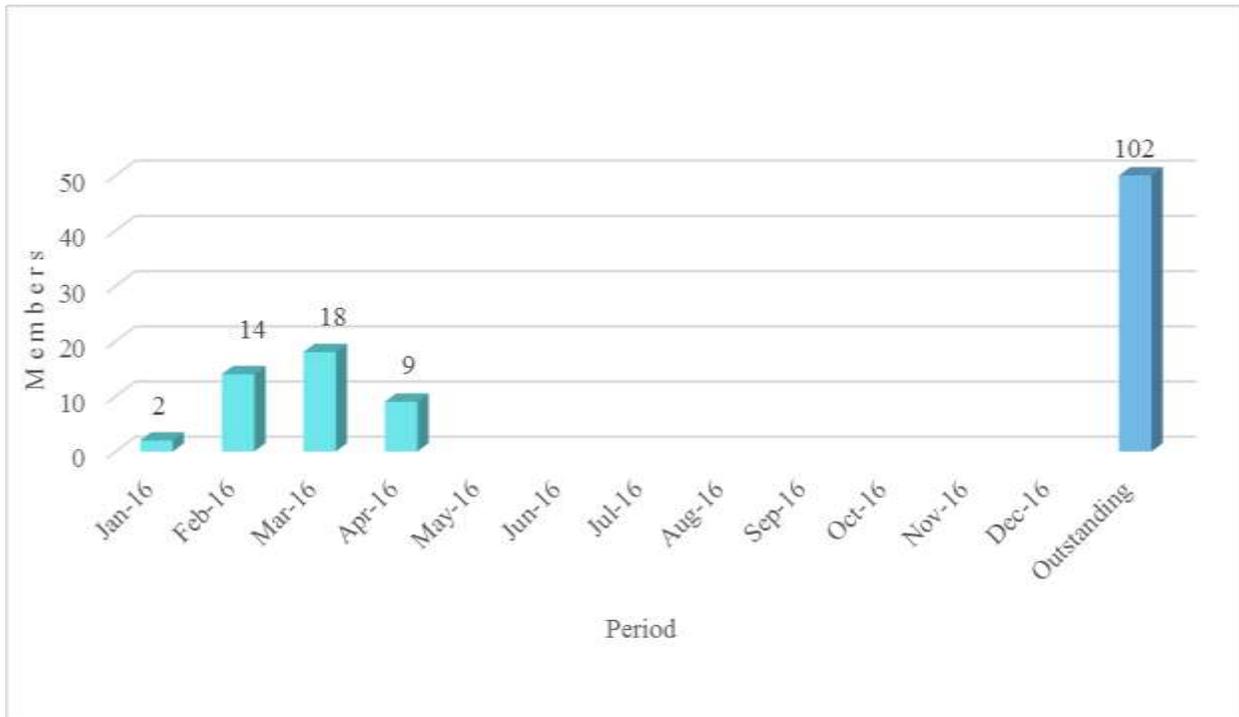
Received and outstanding assessed contributions for 2016 core budget (as of 15 April 2016)



Status of contributions to the 2016 core budget (as of 15 April 2016)



Number of Members with received and outstanding contributions to the 2016 core budget (as of 15 April 2016)



Thematic Programme Areas

Programme activities

Thematic area: Planning for the Global Energy Transition					
Objective: Countries successfully transform their energy systems to meet national targets and strategies to decrease global emissions and improve energy security					
Resources (core assessed, non-assessed and other sources): 12,356 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
REthinking Energy	<ul style="list-style-type: none"> Global Report: Completion of the Third Edition of Rethinking Energy 	In progress: <ul style="list-style-type: none"> An outline of the theme and content of the next REthinking has been prepared and agreed. Collection of basic information for the analysis has commenced. 			Q3 2017
Power system design for RE integration	<ul style="list-style-type: none"> Methodology for grid integration planning* 	In progress: <ul style="list-style-type: none"> AVRIL report on tools for planning under development. 	<ul style="list-style-type: none"> Deployment of methodology for grid integration planning 	In progress: <ul style="list-style-type: none"> Deployment of ACEC zoning work into SPLAT model <i>VC from the government of Norway. Additional resources needed</i> 	Q2 2016 Q4 2017
	<ul style="list-style-type: none"> Workshop on methodology for integration planning* 	In progress: <ul style="list-style-type: none"> The IRENA Innovation Week, May 2016 will include a workshop for integration planning. 	<ul style="list-style-type: none"> One additional workshop on integration planning 	Resources not identified.	Q2 2016 Q2 2017
	<ul style="list-style-type: none"> Advice on use of established industry simulation tools for planning* 	In progress: <ul style="list-style-type: none"> Comparative study of modelling tools applied to Europe. 	<ul style="list-style-type: none"> Simulation tools applied 	Resources not identified.	Q4 2016

NOTE: Activities marked with an asterisk () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Power system design for RE integration (continued)	<ul style="list-style-type: none"> Latin America country studies on integration of VRE into long-term planning* 	Not started.	<ul style="list-style-type: none"> Training programme in the use of long-term planning tool in Africa 	<p>In progress:</p> <ul style="list-style-type: none"> First session of training completed for Swaziland. <i>In kind contribution from Swaziland</i> <p>Completed:</p> <ul style="list-style-type: none"> ECREEE training for 10 countries held third training session in January 2016. <i>In kind contribution from ECREEE</i> 	Q1 2016 Q4 2016
	<ul style="list-style-type: none"> Indicator system for flexibility assessment of power systems* 	<p>In progress:</p> <ul style="list-style-type: none"> The IRENA Innovation week will provide input into the development of the indicator system. 	<ul style="list-style-type: none"> Deploy indicator system including two dialogue events for grid planners, transmission and distribution system operators, grid regulators; evaluation of flexibility and adequacy options; two workshops to collect input and feedback on grid integration methodologies 	<p>Resources not identified.</p>	Q2 2016 Q4 2017
			<ul style="list-style-type: none"> Guidelines on EVs, interconnectors and electricity storage as flexibility measures 	<p>In progress:</p> <ul style="list-style-type: none"> Terms of reference prepared. <i>VC from government of Japan. Additional resources required</i> 	Q4 2016
			<ul style="list-style-type: none"> Country application of innovative grid and market design guidelines and methodologies, upon request 	<p>In progress:</p> <ul style="list-style-type: none"> Grid methodology for energy storage valuation for South Africa. <i>VC from the government of Japan. Additional resources required.</i> 	Q1 2016 - Q4 2017
			<ul style="list-style-type: none"> Advisory services on the development of power sector transition plans 	<p>Resources not identified.</p>	Q1 2016 - Q4 2017

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Transforming Energy	• REmap global technology roadmap analysis - third edition (40 countries)*	In progress: • Update of country reports to feed into the third edition.	• REmap - third edition covering an additional 10 countries, five individual country reports; energy efficiency & renewables action team and transport action team; Socio-economic briefs; two national expert workshops; regional and sectoral roadmaps and REmap information platform.	Resources not identified.	Q1 2017 Q4 2017
			• Analysis of the impacts of REmap 2030 options on water use in the power sector for different countries	Resources not identified.	Ongoing
			• Country analysis (5 countries) on policy frameworks, energy sector transformation and market design	Resources not identified.	Ongoing
			• System for characterisation and selection of bioenergy technology pathways to be deployed for a bioenergy Navigator module.	In progress: • Work has started for solid biomass combustion for power generation. <i>VC from the government of Japan.</i>	Q1 2016 Q4 2017
			• Bioenergy cost-supply report	In progress: • Analysis finalised and to be released on the 17 th May.	Q4 2016
			• Data on processing residue availability to support project development	In progress: • Biomass residue data collection and analysis completed for 4 other African countries are underway. <i>VC from the government of Japan</i>	Q2 2016 Q2 2017
			• A bioenergy assessment tool for Global Atlas to include costs and other parameters	Resources not identified.	Q4 2016
			• Advisory services on bioenergy technology options, upon request	Potential resources identified: • Workshop on bioenergy project development under preparation. <i>VC from the government of Japan.</i>	Q1 2016 Q4 2017

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Technology status & outlook	• Report: 'The Innovation Landscape for RE Technologies'*	In progress: • Background scoping study completed.	• Two preparatory workshops for the Innovation report	In progress: • Innovation Day on 26 th May to take place in Abu Dhabi in conjunction with the Council. <i>Additional resources required</i>	Q2 2016 Q4 2017
	• Status briefs for five technologies*	In progress: • Wind completed, geothermal in progress, EVs and biogas for transportation and logistics of biomass under preparation.	• Additional technology briefs	Resources not identified	Q1 2016 Q4 2017
	• Outlook report for heating and cooling energy storage*	Not started	• Outlook report for 1) offshore wind and 2) electric vehicles	In progress: • Offshore wind draft finalised. <i>Additional resources required.</i>	Q4 2016 Q4 2017
	• IRENA Energy Week to support Innovation Landscape report*	In progress: • IRENA Innovation Week will take place May 11-13 2016.	• IRENA Energy Week (2017)	Resources not identified	Q2 2017
			• Global report on status and trends of hydropower	Resources not identified	Q2 2017
			• Country advisory services in designing and implementing renewable energy technology innovation strategies	Resources not identified	Q1 2016 Q4 2017

NOTE: Activities marked with an asterisk () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Global Geothermal Alliance	• Establish a GGA platform for communication	In progress: • GGA action plan finalized through an intensive consultative process with GGA member countries and partner institutions.	• Advisory services on enabling frameworks and capacity building workshop to raise awareness and strengthen capacity of public stakeholders in the Pacific	In progress: • The concept note of geothermal energy technical assistance and capacity building initiative for the Pacific under preparation. <i>VC from the government of Japan.</i>	Ongoing Q3 2017
			• Methodology for geothermal capacity needs assessment applied in one region	In progress: • The IRENA geothermal capacity needs methodology will be applied to a region yet to be identified. <i>VC from the government of Switzerland.</i>	Q4 2016
			• Additional advisory services and training to GGA member countries to help create necessary enabling frameworks to promote investments	Resources not identified	Ongoing
			• Partnerships with expert institutions to deliver targeted capacity building activities related to geothermal energy	Resources not identified	Q2 2017
			• Stakeholder outreach to feature geothermal energy prominently at major events of relevance	Resources not identified.	Ongoing

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
REpowering Cities			• Methodology for and application of building stock assessments for identifying renewable energy potential in cities	Resources not identified	Q4 2016
			• Report on renewable integration options and enabling electricity and heat/cold distribution infrastructure in cities	Resources not identified	Q4 2016
			• Workshops and outreach, including Habitat III: Disseminate results to build knowledge and share best practice.	Resources not identified.	Q4 2017
			• Methodology and capacity building to support the monitoring of renewable energy impact on the carbon footprint of cities	Resources not identified.	Q4 2017
			• Methodology on biomass resource assessment customised to the Latin America context and training for its effective implementation.	Resources not identified.	Q2 2017
			• Map stakeholders and urban settings for identification of commonalities	Resources not identified.	Q4 2017
			• Briefs on innovative policy, regulatory and financing approaches to incentivise renewable energy deployment and energy efficiency measures in cities	Possible resources identified. In progress: • Scope and possible partner identified as part of VC application.	Q4 2017
			• Outreach to UNFCCC Workstream 2	In progress: • Attendance at and reporting on UNFCCC workshops. <i>VC from the government of Sweden. Additional resources required</i>	Q4 2017

NOTE: Activities marked with an asterisk () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Enabling investment and growth					
Objective: Improving policy frameworks and creating enabling market conditions for accelerated deployment of renewable energy					
Resources (core assessed, non-assessed and other sources): 12,762 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Renewable energy costs	<ul style="list-style-type: none"> Expanded and refined IRENA Renewable Costing Alliance* 	In progress: <ul style="list-style-type: none"> 4000-5000 new projects added into the cost database. 	<ul style="list-style-type: none"> One report on grid parity in the power sector 	Resources not identified	Q1 2016 Q4 2017
	<ul style="list-style-type: none"> Costing report on Biofuels for Transport* 	Not started.	<ul style="list-style-type: none"> One renewable energy investment volume report 	Resources not identified	Q4 2016
	<ul style="list-style-type: none"> Papers on cost or competitiveness topics including power generation updates in 2016 and 2017, renewable energy finance costs, wind learning curve decomposition, energy storage and self-consumption* 	In progress: <ul style="list-style-type: none"> Finalisation of wind learning curve analysis. 	<ul style="list-style-type: none"> Renewable energy competitiveness indicators by country and application 	Resources not identified	Q4 2016 Q4 2017
			<ul style="list-style-type: none"> Global Atlas on economic solar PV applications 	Resources not identified	Q4 2017
	<ul style="list-style-type: none"> Quarterly PV Parity Indicator tool applied* 	In progress: <ul style="list-style-type: none"> PV parity tool has been developed. Report is being finalised. 	<ul style="list-style-type: none"> Regional analysis on cost reduction opportunities for solar and wind technologies 	Resources not identified	Ongoing
			<ul style="list-style-type: none"> Cost data collection methodology developed and applied for renewable energy in China and other countries 	Resources not identified	Q4 2016

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Renewable energy benefits	• Global report on Renewable Energy and Jobs - Annual Review 2016 and 2017	In progress: • Annual Review 2016 finalised to be launched at 11 th Council			Q2 annually
	• Report on maximizing value creation from one renewable energy technology	In progress: • Scope defined and report under preparation	• Global report on maximising value creation from geothermal deployment (web-based)	Resources not identified	Q4 2017
			• Guide for policy makers to disseminate lessons learnt on maximising value creation from other renewable energy technologies and applications	Resources not identified	Q4 2017
			• Global report on maximising value creation for renewables-based heating and cooling applications (web-based)	Resources not identified	Q4 2016
	• Global report on the structural and distributional economic dimension of renewable energy deployment	In progress: • Scope defined and report under preparation			Q4 2017
			• Regional report on socio-economic impacts of renewable energy deployment (web-based)	Resources not identified	Q4 2016
			• Analysis of the socio-economic impacts from renewable energy deployment by 2030 in selected countries.	Resources not identified	Ongoing
			• Report: the potential role of RE for energy security and resilience, including the impact of renewables on electricity security	Resources not identified	Q4 2017

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Policy options to accelerate deployment	<ul style="list-style-type: none"> Global report on state-of-the-art analysis of innovative policy design and practice 	Not started	<ul style="list-style-type: none"> Policy guide on analysis of growth in decentralised generation on decision-making in the power sector 	Resources not identified	Q4 2017
			<ul style="list-style-type: none"> Country analysis (4 countries) of policy and institutional frameworks, selected socio-economic impacts, the nexus of water-food and energy 	Resources not identified	Q4 2017
	<ul style="list-style-type: none"> Update of the policy and measures database 	In progress: <ul style="list-style-type: none"> First biannual call for updating the database sent in April. 	<ul style="list-style-type: none"> Regional report on policy status and trends based on policy and measures database 	Possible resources identified	Q4 2017
	<ul style="list-style-type: none"> Regional report on market analysis of policies and trends for renewable energy in Southeast Asia 	In progress: <ul style="list-style-type: none"> Scope defined and workshop organised in June for stakeholder consultation 	<ul style="list-style-type: none"> Report on good practices in policy design 	Resources not identified	Q4 2017
			<ul style="list-style-type: none"> Two thematic briefs providing in-depth analysis of emerging regional policy themes 	Resources not identified	Q4 2017
Financing renewables	<ul style="list-style-type: none"> IRENA's country-level public-sector investment statistics as an authoritative dataset and basis for analytical work. 	In progress: <ul style="list-style-type: none"> Annual data collection concluded March 2016. Dashboard on public renewable energy investments updated and available through REsource. 	<ul style="list-style-type: none"> Analysis of financial structures for RE projects 	In progress: <ul style="list-style-type: none"> Public finance database has been expanded to capture financial instruments used. <i>VC from the government of Norway</i> 	Ongoing Q2 2017
	<ul style="list-style-type: none"> Analysis of the linkages between policies, incentives, public investments and achievement of renewable energy targets. 	In progress: <ul style="list-style-type: none"> Ongoing data and literature review 	<ul style="list-style-type: none"> Two high level expert meetings to feed into the process of the report writing/study 	Resources not identified	Ongoing Q2 2017
	<ul style="list-style-type: none"> Global report on the state-of-play of financial instruments and structures to mobilise institutional investors in the RE sector 	Not started	<ul style="list-style-type: none"> Conference and working papers on financial risk mitigation instruments 	Resources not identified	Q4 2017
	<ul style="list-style-type: none"> Collaboration with the GCF 	In progress: <ul style="list-style-type: none"> Focus on GCF readiness support and links with GCF secretariat. 	<ul style="list-style-type: none"> Expert meetings on public finance for RE 	Resources not identified	Ongoing

NOTE: Activities marked with an asterisk () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Project facilitation	<ul style="list-style-type: none"> Regional Marketplace portals for RE projects in Africa, LAC region and SIDS also open to energy efficiency projects 	Not started	<ul style="list-style-type: none"> Renewable energy project facilitation activities expanded to include all of the developing world and expanded active facilitation. 	In progress: <ul style="list-style-type: none"> VC from the government of France; and through partnerships with MDBs/IFIs etc. 	Ongoing
	<ul style="list-style-type: none"> At least six events focused on capacity building* 	Not started.	<ul style="list-style-type: none"> Capacity building workshops and webinars to support project preparation and capturing results 	Resources not identified.	Ongoing
			<ul style="list-style-type: none"> Selection of projects for the 4th and 5th cycle of the IRENA/ADFD Project Facility 	In progress. <ul style="list-style-type: none"> VC by ADFD. 	Q4 annually
	<ul style="list-style-type: none"> Two technical concepts for Project Navigator* 	In progress: <ul style="list-style-type: none"> In the process of defining concept. 	<ul style="list-style-type: none"> Two additional technical concepts for Project Navigator 	Resources not identified.	Q4 2017
	<ul style="list-style-type: none"> Project development assistance through Project Navigator* 	In progress: <ul style="list-style-type: none"> Webinars are being conducted to provide guidance for island projects Coordinating with local organisations to identify pilot projects. 	<ul style="list-style-type: none"> Additional Project development assistance through Project Navigator 	Resources not identified.	Q4 2017

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Renewable energy access for sustainable livelihoods					
Objective: Improved livelihoods through access to renewable energy					
Resources (core assessed, non-assessed and other sources): 4,323 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Decentralised solutions for access	<ul style="list-style-type: none"> • Third International Off-grid Renewable Energy Conference and Exhibition and associated follow-up activities to promote an enabling environment 	In progress: <ul style="list-style-type: none"> • Potential venues and partners identified 	<ul style="list-style-type: none"> • Regional thematic workshops on specific deployment barriers and issues identified during IORECs 	Resources not identified	Q4 2017
	<ul style="list-style-type: none"> • Development of the framework for the Off-Grid Renewable Energy Policies database 	Not started	<ul style="list-style-type: none"> • Inclusion of off-grid policies from at least 20 countries in the Off-Grid Renewable Energy Policies database 	Resource not identified	Q4 2017
	<ul style="list-style-type: none"> • Global report on policies to maximise socio-economic benefits of off-grid applications 	Not started	<ul style="list-style-type: none"> • Working papers on innovative business models to accelerate financing of off-grid solutions. 	Resources not identified	Q2 2017
	<ul style="list-style-type: none"> • Develop and apply methodologies on decentralised renewable energy system planning* 	Not started.			Q4 2017
	<ul style="list-style-type: none"> • In-depth technical guide for minigrids and their characteristics* 	Not started.	<ul style="list-style-type: none"> • Briefs on policies and regulatory measures to support renewable energy-based mini-grid deployment 	Resources not identified	Q4 2016
Applied decentralised solutions			<ul style="list-style-type: none"> • Technical reports to assess resource data on decentralised potentials within the Africa Clean Energy Corridor RE Zoning work 	Resources not identified	Q4 2017
			<ul style="list-style-type: none"> • Additional advisory services on policy frameworks, business models and technology solutions, with regional and country-specific approaches on decentralised electrification solutions. 	Resources not identified	Ongoing
	<ul style="list-style-type: none"> • Advisory services to identify capacity needs and develop a regional action plan on RE mini-grids in the ECOWAS region. 	In progress: <ul style="list-style-type: none"> • Capacity Needs Assessment for the deployment of renewables-based mini-grids ongoing, in collaboration with ECREEE. 	<ul style="list-style-type: none"> • Additional advisory services in the ECOWAS region to identify capacity needs and develop a regional action plan on RE mini-grids. 	Resources not identified	Q4 2016
	<ul style="list-style-type: none"> • Advisory services to strengthen RE enterprises to develop bankable projects under the ECOWAS Renewable Energy Entrepreneurship Support Facility 	In progress: <ul style="list-style-type: none"> • The second call for proposals for the Facility launched. 	<ul style="list-style-type: none"> • Additional advisory services to explore the replication of the ECOWAS Renewable Energy Entrepreneurship Support Facility in other regions 	Resources not identified	Q4 2017
			<ul style="list-style-type: none"> • Training for small and medium scale entrepreneurs and financial institutions on renewables-based electrification solutions in sub-regions of Africa and in Asia. 	Resources not identified	Q4 2017

NOTE: Activities marked with an asterix () are resourced by core assessed and core non assessed funds

**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Regional action agenda					
Objective: Regional integration with increased shares of renewables to meet energy needs					
Resources (core assessed, non-assessed and other sources): 16,250 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Africa Clean Energy Corridor	<ul style="list-style-type: none"> Workshop to validate identified wind, solar PV and CSP zones 	Not started.	<ul style="list-style-type: none"> Additional workshops and partnerships to validate identified wind, solar PV and CSP zones and enable incorporation into national and regional energy planning processes. 	In progress: <ul style="list-style-type: none"> Projects of regional importance are being developed for submission to the power pools and PIDA. Incorporation of the zoning work into the national energy master plan in Swaziland. <i>VC from the government of Norway.</i>	Ongoing
			<ul style="list-style-type: none"> Advisory services to enable ACEC countries independently develop the identified zones 	Resources not identified	Ongoing
			<ul style="list-style-type: none"> Regional technical guide of good practice for calculating cost reflective tariffs and establishing sufficient investment incentives into renewables 	Resources not identified.	Q1 2017
	<ul style="list-style-type: none"> Advisory services on policy and legislative support through Renewables Readiness Assessments 	In progress: <ul style="list-style-type: none"> The RRA process completed in Zimbabwe; the report under finalization. 	<ul style="list-style-type: none"> Additional advisory services on policy and legislative support through Renewables Readiness Assessments 	In progress: <ul style="list-style-type: none"> The RRA workshop conducted in Tanzania where local stakeholders provided key recommendations to finalize the report. <i>VC from the government of Norway. Additional resources needed.</i>	Ongoing
	<ul style="list-style-type: none"> Workshop for stakeholder consultation to update the zoning study 	Not started.	<ul style="list-style-type: none"> Additional workshops for stakeholder consultation to update the zoning study 	Resources not identified	Q4 2016 Q4 2017
	<ul style="list-style-type: none"> Training for regulators on power systems operating with higher shares of VRE 	Completed: <ul style="list-style-type: none"> The first stakeholder consultation workshop took place in Namibia, 18-19 April. 	<ul style="list-style-type: none"> Additional training for regulators on power systems operating with higher shares of VRE. 	Resources not identified	Q4 2017

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Africa Clean Energy Corridor (continued)	<ul style="list-style-type: none"> The ACEC Consultative Forum to facilitate partnerships and dialogue 	In progress. Adjusted: <ul style="list-style-type: none"> This deliverable was adjusted, to align with the new framework for all energy related initiatives in Africa. An existing platform such as the African energy Leaders Group will be used. 	<ul style="list-style-type: none"> Regional guide of good practice for power system development and technical report for application in a pilot country 	Resources not identified	Ongoing Q1 2017
	<ul style="list-style-type: none"> Partnerships and advisory services for ACEC action agenda development and implementation in West Africa 	In progress: <ul style="list-style-type: none"> An action agenda for the WACEC was developed and adopted by directors of energy as well as regional organisations and development partners. 	<ul style="list-style-type: none"> Additional advisory services to implement the action agenda for ACEC West Africa 	Potential resources identified.	Q2 2016 Ongoing
			<ul style="list-style-type: none"> Training in the areas related to the implementation of the action agenda for ACEC West Africa 	Resources not identified	Q3 2016

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Central America Clean Energy Corridor	<ul style="list-style-type: none"> Advisory services to finalise the action agenda by the governments 	Completed: <ul style="list-style-type: none"> CECCA strategy endorsed by regional Energy Ministers. 			Q2 2016
	<ul style="list-style-type: none"> Platform to establish partnerships and operationalise dialogue 	In progress: <ul style="list-style-type: none"> Detailed activities of the CECCA strategy implementation developed in coordination with relevant regional, national and development partners, incl. IADB, USAID, GIZ. 	<ul style="list-style-type: none"> Advisory services to support SICA/SIEPAC 	Resources not identified	Q2 2016 Q4 2017
	<ul style="list-style-type: none"> Training for national and regional system operators on RE grid integration. 	Not started.	<ul style="list-style-type: none"> Technical report on the identification of maximum penetration levels of variable renewable energy under secure conditions in the regional system 	Resources not identified	Q3 2017 Q4 2017
	<ul style="list-style-type: none"> Technical report for an assessment of the monitoring and control system, control room tools and operating practices currently in place 	In progress: <ul style="list-style-type: none"> Technical enabling component of the initiative under finalization. 	<ul style="list-style-type: none"> Training for national and regional regulators on regulatory governance frameworks for RE grid integration 	Resources not identified	Q4 2016 Q3 2017
	<ul style="list-style-type: none"> Advisory services for the implementation of regulatory governance frameworks for RE grid integration. 	In progress: <ul style="list-style-type: none"> Regulatory enabling component of the initiative under finalization. 	<ul style="list-style-type: none"> Additional advisory services for the implementation of regulatory governance frameworks for RE grid integration. 	Resources not identified	Q4 2016 Q4 2017
			<ul style="list-style-type: none"> Workshop for scoping of activities in line with the CECCA strategy 	Resources not identified	Q4 2017

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Emerging Clean Energy Corridors	<ul style="list-style-type: none"> Advisory services to develop and implement the action agenda for ASEAN Clean Energy Corridor by the governments 	In progress: <ul style="list-style-type: none"> The first consultation workshop held in collaboration with ASEAN Center for Energy The second consultation workshop scheduled to take place in Thailand in mid-June. 	<ul style="list-style-type: none"> Additional advisory services to implement the action agenda for ASEAN Clean Energy Corridor by the governments 	Resources not identified	Q2 2016 Ongoing
	<ul style="list-style-type: none"> Platform to establish and operationalise dialogue, cooperation and coordination among the key ASEAN regional and national stakeholders 	In progress: <ul style="list-style-type: none"> Cooperation with ASEAN institutions (ASEAN Secretariat, ACE, and HAPUA) as well as key regional partners established. 	<ul style="list-style-type: none"> Training in the areas related to the implementation of the action agenda for ASEAN Clean Energy Corridor 	Resources secured. In progress: <ul style="list-style-type: none"> A workshop on technology, policy and finance will take place in Thailand in mid-June. <i>VC from the government of Japan</i> 	Ongoing
Enabling regional action	<ul style="list-style-type: none"> Advisory services to develop the PACE action agenda by the governments 	In progress: <ul style="list-style-type: none"> Gap Analysis for Maghreb region under finalization. 	<ul style="list-style-type: none"> Additional advisory services to implement the PACE action agenda 	Resources not identified	Q4 2016 Q4 2017
	<ul style="list-style-type: none"> Platform for dialogue, cooperation and coordination among the key PACE regional and national stakeholders 	In progress: <ul style="list-style-type: none"> Regional stakeholder consultations will be held to identify main elements of the action agenda. 	<ul style="list-style-type: none"> Additional training to help key stakeholders in PACE countries advance the action agenda 	In progress: <ul style="list-style-type: none"> A workshop on Power Purchase Agreement for RE organised in conjunction with MENAREC6. <i>VC from the government of Germany. Additional resources required.</i> 	Q2 2016 Q4 2017

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Enabling regional action (continued)	<ul style="list-style-type: none"> Action plan for IRENA's engagement in the South-eastern Europe 	In progress: <ul style="list-style-type: none"> Regional meeting with Embassy representatives held in the IRENA HQ. 	<ul style="list-style-type: none"> Workshops for stakeholder engagement and technical reports on potential for RE integration in national plans in South-eastern Europe 	Resources secured. In progress: <ul style="list-style-type: none"> Reports under development to assess cost-effective potential for RE generation in SEE. A joint IRENA-Energy Community workshop held in Austria in March 2016 on preliminary findings. <i>VC from the government of Germany</i> 	Q4 2016 Q4 2017
	<ul style="list-style-type: none"> Develop an action agenda for a regional approach for RE development in Central Asia 	In progress: <ul style="list-style-type: none"> Bilateral consultations with countries underway in preparation for a regional stakeholder meeting. 			Q4 2016
	<ul style="list-style-type: none"> Platform for dialogue, cooperation and coordination among the key Central Asia regional and national stakeholders 	In progress: <ul style="list-style-type: none"> Regional meeting with Embassy representatives held in the IRENA HQ. Mission to Kazakhstan in February to discuss support to the EXPO-2017. 	<ul style="list-style-type: none"> Advisory services in the areas related to the implementation of the action agenda for Central Asia 	Resources not identified	Q4 2016 Q4 2017

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Country support and advisory services	• 6 RRA Country Reports.	In progress: • RRA Egypt, Pakistan, Tunisia are progressing.	• Additional RRA Country Reports	In progress: • RRA Mongolia launched in March. RRA Antigua and Barbuda, Philippines, Tanzania and Zimbabwe are underway. <i>VC from the government of Norway and Japan.</i>	Ongoing
			• Incorporate the integrated resource approach in IRENA's Renewables Readiness Assessment methodology and country reports	Resources not identified	Ongoing
			• Advisory service for the implementation of RRA recommendations including technical advice on statistics, energy planning, resource assessment, finance, etc.	Resources secured. In progress: • Post RRA support to Mozambique and Mauritania planned. <i>VC from the government of Norway</i>	Ongoing
			• Advisory services for Indonesia REmap/RRA pilot	Resources not identified. Adjusted • Proposal to Thailand to develop a combined REmap/RRA	Q1 2017
	• Advisory services and training for post-RRA implementation upon country requests.	Not started.	• Additional post RRA services	Resources not identified.	Ongoing
			• Advisory services for the development of an implementation plan based on the recommendations from the RE manufacturing report for three North African countries.	Resources not identified	Q4 2017

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Country support and advisory services (continued)			<ul style="list-style-type: none"> • Methodology of renewables manufacturing potential applied in additional countries 	In progress: <ul style="list-style-type: none"> • An additional study for Lebanon, Jordan and UAE under development in collaboration with UNESCWA. <i>VC from the government of Germany,</i> 	Q1 2017 Q4 2017
			<ul style="list-style-type: none"> • Advisory services in support of the design and implementation of power system governance structures 	Resources not identified.	Q2 2017
			<ul style="list-style-type: none"> • Technical assistance and training to the key stakeholders in the formulation of ASEAN renewables target implementation plans 	Resources not identified.	Q4 2017
			<ul style="list-style-type: none"> • Additional advisory services upon request 	Resources not identified.	Q1 2017
			<ul style="list-style-type: none"> • Technical report and support for MENAREC 6 	Completed: <ul style="list-style-type: none"> • MENAREC6 successfully implemented. <i>Support provided by the German government and other regional partners (LAS, UNESCWA, RCREEE). VC from the government of Germany,</i> 	Q2 2016

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Islands: lighthouses for renewable energy deployment					
Objective: Island energy systems transformed through renewable energy					
Resources (core assessed, non-assessed and other sources): 3,743 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
SIDS Lighthouses	<ul style="list-style-type: none"> • Grid studies support (2 island studies)* 	In progress: <ul style="list-style-type: none"> • Studies (VC funded) are under development. Support to Kiribati and Samoa is being provided in parallel to study development. 	<ul style="list-style-type: none"> • Support to and management of the SIDS Lighthouses Initiative 	In progress: <ul style="list-style-type: none"> • Support and management of the SIDS Lighthouses Initiative. <i>VC from the government of Germany and New Zealand.</i> 	Q4 2017 Ongoing

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities			Timeframe**	
	Core	Status	Other sources		
SIDS Lighthouses (continued)			<ul style="list-style-type: none"> • Advisory services including Quickscans, Renewable Readiness Assessments, Roadmaps, Resource Assessments, Grid Integration Studies and Transition Plans 	<p>In progress:</p> <ul style="list-style-type: none"> • A training workshop coordinated with government of Japan for nine Pacific SIDS and the Maldives to further explore the enabling environments necessary to support the widescale deployment of renewable energy. <i>All costs funded by the government of Japan</i> • RRA for Antigua and Barbuda <i>VC from the government of Norway</i> • Roadmap for Palau and Federated States of Micronesia <i>VC from the government of New Zealand</i> • Grid study for Samoa is under development and IRENA is facilitating the development of the Kiribati grid study through University of South Pacific and the Pacific Power Association. <i>VC from the government of New Zealand.</i> 	Q4 2017
			<ul style="list-style-type: none"> • Training workshops to address legal, regulatory, institutional, human resource and other constraints supported 	<p>Resources not identified.</p>	Q4 2017
			<ul style="list-style-type: none"> • Tools for monitoring, evaluating, communicating progress of the initiative, and sharing knowledge developed 	<p>Resources not identified.</p>	Q4 2016

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Global Renewable Energy Islands Networks (GREIN)			<ul style="list-style-type: none"> GREIN platform continuously updated for the sharing of best practices and case studies related to the GREIN cluster areas. 	Adjusted: GREIN consolidated under the Lighthouses umbrella.	Ongoing
			<ul style="list-style-type: none"> Dissemination of information through cluster-specific webinars, newsletters, etc. 	In progress: Disseminated a study on renewable energy desalination opportunities for the country of Kiribati. <i>VC from the government of Germany.</i>	Ongoing
			<ul style="list-style-type: none"> Regional workshops and other meetings to facilitate dialogue across and among regions and islands 	Resources not identified.	Ongoing
Enabling projects in islands			<ul style="list-style-type: none"> Development and execution of at least 3 bankable RE projects in partner countries 	In progress: <i>VC from the government of Germany</i>	Q4 2017
			<ul style="list-style-type: none"> Partnerships developed with expert institutions to provide targeted support in planning, identifying, structuring, and executing viable renewable energy projects in SIDS 	In progress: <i>VC from the government of Germany</i>	Ongoing

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Gateway to knowledge on renewable energy					
Objective: Renewable energy knowledge accessible to all					
Resources (core assessed, non-assessed and other sources): 11,658 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
RE Statistics	<ul style="list-style-type: none"> RE Statistics Database: Provisional estimates of RE capacity on REsource six months after year-end, with final figures for capacity and energy balances within 18 months. 	In progress: RE capacity data completed for 2016	<ul style="list-style-type: none"> Working paper: lessons learned from case studies in renewable energy data collection 	Resources not identified	Q4 2017
	<ul style="list-style-type: none"> Statistics training: two training courses held in countries and regions where renewable energy data is relatively weak, leading to improved response rate to IRENA annual statistics questionnaire. 	Not started	<ul style="list-style-type: none"> Two additional training courses and further capacity building support to improve quality and completeness of renewable energy statistics, including for decentralised off-grid solutions. 	Resources not identified	Q4 2017
The Global Atlas	<ul style="list-style-type: none"> Maintenance of solar and wind Atlas, including demonstration for measurement data collected by governments, donors and public finance entities. 	In progress. <ul style="list-style-type: none"> Measurement data adjusted 	<ul style="list-style-type: none"> Technical infrastructure assessments, <i>e.g.</i> cities, highly-populated areas in developing countries, etc. 	Resources not identified	Ongoing Q4 2016
			<ul style="list-style-type: none"> Refinement and completion of new data set of marine & hydro, including zoning tools and working papers. 	Resources not identified	Ongoing
	<ul style="list-style-type: none"> Completion of bioenergy and geothermal, including zoning methodology and tools. 	In progress: <ul style="list-style-type: none"> Bioenergy tool is near completion. 	<ul style="list-style-type: none"> Global Atlas training sessions (webinars and workshops) and constantly updated training module on how to use maps and data in the policy formulation process. 	Resources not identified	Ongoing
			<ul style="list-style-type: none"> Preliminary high potential renewable energy zones identified based on zoning methodology 	Potential resources identified. In progress: <ul style="list-style-type: none"> Data gathering process initiated. 	Q4 2017

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Quality infrastructure, standards and patents	• INSPIRE platform refinement, outreach and dissemination*	In progress: • Patents database updated.			Ongoing
	• Technical QI analysis report for 1) utility scale PV and 2) smart-grids or mini-grids *	In progress: • Utility scale PV	• QI analysis reports for additional technologies upon request	Resources not identified	Q4 2016 Q4 2017
			• Advisory services and two workshops on the development and implementation of Q1 frameworks for renewable energy technologies for two countries/regions	Resources not identified	Q4 2017
			• Advisory services and workshop on Accreditation and Certification of training institutions and their programmes based on established and new regional certification schemes	Resources not identified.	Q2 2016 Q3 2017
	• Workshops with selected training institutions for the implementation of a regional certification scheme for solar PV installers	In progress: • The second phase of the certification scheme for solar PV installers under development	• Advisory services and workshop on the international accreditation of selected training institutions and their programmes	Resources not identified.	Q2 2017 Q4 2017
	• Advisory services and workshop for the international accreditation of the certification scheme	Not started.	• Advisory services and workshop for the establishment of the regional certification scheme	Resources not identified.	Q4 2017 Q4 2016
			• Advisory services and workshop for the creation of the administrative structure of the programme	Resources not identified.	Q4 2016
Enhancing environmental and resource sustainability	• Policy guide on best practices to enable a sustainable scale-up of renewable energy applications that positively impact water and food security	Not started	• Reports on environmental impacts of solar, wind and geothermal technologies	In progress: • Solar analysis underway <i>VC from Germany. Additional resources required.</i>	Q4 2017 Q4 2016
			• Working paper quantifying the environmental impacts and benefits relative to other energy technologies	Resources not identified	Q4 2016
			• Public guidelines for renewable energy environmental impact assessment for public financial institutions. Workshop with financial institutions	Resources not identified	Q2 2017
			• Eight briefs (case studies) to showcase the benefits of renewable energy in the water, energy and food nexus	Resources not identified	Ongoing

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Knowledge Hub	• Maintenance and expansion of the REsource platform.	In progress: • Launch of Resource 2.0 with improved user interface, additional features and new, relevant and up to date content.	• Creating "specialised" mini-REsource platforms for other IRENA projects.	Resources not identified	Ongoing
			• Making REsource multi-lingual, <i>i.e.</i> making the platform available and searchable in several languages.	Resources not identified	Ongoing Q4 2016
			• Further expansion of REsource by validating and integrating reliable external content of third parties.	In progress • Limited external content integrated in the data section with in-house human resources. <i>To integrate larger external content additional funding is required.</i>	Ongoing
			• Advisory services to countries and public entities seeking to develop similar knowledge platforms.	Resources not identified	Ongoing

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Multi-stakeholder engagement	• Expand and operationalise the IRENA Coalition for Action.	In progress • Overall support to the Coalition, engagement with additional partners and identification of opportunities for collaboration.	• Support work to develop a consumer label in cooperation with industry and civil society organisations	Resources not identified.	Ongoing Q2 2016
			• Organise an annual high-level meeting of the Coalition	Resources not identified	Q2 2016 Q1 2017
			• Maintain and moderate the public debate on the IRENA Community	Resources not identified. Adjusted: • Exploring the option to phase out the IRENA Community.	Ongoing
			• Maintain and expand the four databases of the IRENA Learning Platform	Resources not identified. Adjusted: • Proposal to streamline IRELP, as part of a broader education initiative.	Ongoing
			• Two 'Model IRENA' simulations, including extensive preparatory trainings	Resources not identified.	Ongoing
			• Regular university and school visits in the Host Country	Resources not identified.	Q4 2017
			• Design, maintain, coordinate and launch the IRENA renewable energy e-learning initiative	Resources not identified. Adjusted: • Proposal to reformulate the e-learning initiative into an education initiative bridging SDG4 and SDG7.	Q2 2016
		• Hosting of legislators' meeting on the side-lines of the Sixth Assembly*	Completed. • The first forum successfully completed on 15 January 2016.	• Outreach to legislators and other parliamentary stakeholders and dissemination of tailored RE information	Resources not identified.

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**NOTE: Timeframe for deliverables under 'other sources' is subject to availability of funds

Thematic area: Enhancing international cooperation and communications and outreach					
Objective: Actively engage Members, leverage strategic partnerships and communicate with stakeholders and the public					
Resources (core assessed, non-assessed and other sources): 17,237 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Facilitating international cooperation	• Ongoing support to Members	In progress			Ongoing
	• Two Assembly meetings and related events*	In progress. Ongoing: • 6 th session of the Assembly successfully held			Ongoing
	• Increased number of IRENA Members	In progress. Ongoing: • Two new Members in 2016 to date			Ongoing
	• Four Council meetings and related events*	In progress: • Preparations for the 11 th meeting of the Council in progress			Ongoing
	• Meetings of subsidiary bodies, as necessary*	In progress: • Preparations for meetings of the PSC and AFC in progress			Ongoing
	• IRENA booth at WFES *	In progress: • 14 programmatic meetings held during WFES 2016			Ongoing
	• Increased programme-related communication to Member States*	In progress: • 2 Bulletins sent to Members, a number of <i>In Focus</i> briefs prepared, information on IRENA activities circulated			Ongoing
	• Further development of content and functionalities of online portal for Members*	In progress: • REmember updated and prepared for the revamp of the new IRENA website			Ongoing
	• Facilitate engagement of Permanent Representatives in the Agency and heightened outreach to other Permanent Missions at Headquarters*	In progress: • 3 credentials ceremonies held; information on IRENA activities disseminated to the UAE diplomatic community			Ongoing
	• Development of a Member communication network	In progress: • Contact made with IRENA focal points to connect with national communication counterparts			Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Dissemination of knowledge, data and analysis.	<ul style="list-style-type: none"> • Communications strategies 	In progress: <ul style="list-style-type: none"> • Developed 2016 communications strategy, including a series of thematic campaigns • Conducted major campaigns for IRENA 6th Assembly, REmap 2.0 and IRENA's 5th Anniversary • Conducted focused campaigns for capacity data, Mongolia RRA, and brief on water use in China's power sector • Strategy drafted for IRENA Innovation Week and the upcoming jobs Annual Review 	<ul style="list-style-type: none"> • Educational videos and infographics to simplify complex renewable energy concepts 	Resources not identified.	Ongoing
	<ul style="list-style-type: none"> • Social media campaigns and digital platforms to support IRENA's initiatives and expand knowledge on renewable energy* 	In progress: <ul style="list-style-type: none"> • Conducted social media campaigns on IRENA 6th Assembly (#IRENA6A), REmap 2.0 (#REmap) and IRENA's 5th Anniversary (#REthenandnow) • Twitter followers increase by 22% (year to date) • Facebook and LinkedIn followers increase by 15% each (year to date) • 580 photos added to Flickr and 9 institutional videos added to YouTube. Started new Instagram account. 			Ongoing

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	Core	Status	Other sources	Status	
Dissemination of knowledge, data and analysis (continued)	• Editorial maintenance of IRENA web properties and digital media	In progress: • Website content updated weekly • Revamping of irena.org website underway			Ongoing
	• Digital media production and distribution*	In progress: • Designing and disseminated 50 infographics based on IRENA products/data • Creating 5 promotional videos • Distributed 30 press releases and newsroom posts in seven languages			Ongoing
	• Press conferences, webinars	In progress: • Held 4 IRENA-led press events in Abu Dhabi during Assembly/WFES • Provided- hosted media assistance for 7 members of the international press during Assembly/WFES • Garnered coverage via 3,400 articles in 91 countries • Completed two press events in Berlin for REmap launch			Ongoing
	• Strengthened media and stakeholder lists	In progress: • Consistently update global media lists based on coverage/media queries • Procured new tool to gain access to 2.5 million journalists worldwide	• Increase language-specific capacity and production of language-specific communications materials	Resources not identified.	Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Dissemination of knowledge, data and analysis (continued)	<ul style="list-style-type: none"> Agency-wide publications coordination, planning, production and communications support 	In progress: <ul style="list-style-type: none"> Release of 10 new reports and briefs in 2016 to date (10 April) with reader-friendly web content and targeted communications for each Global, regional, national, thematic or interest-specific press and social media support for each new report release 			Ongoing
	<ul style="list-style-type: none"> Editing, translation, proofreading and graphic design to support programmatic publishing outputs* 	In progress: <ul style="list-style-type: none"> Release of latest <i>REmap</i> global report summary in eight languages (completed) Key findings or Agency messages available in all UN and other languages Collaboration with Kazakhstan to translate key recent publications for Astana EXPO 2017 Dialogue with Members and specialist institutes to further strengthen translation process 			Ongoing
	<ul style="list-style-type: none"> Planning and implementation of programmatic events in support of the Work Programme* 	Not started.			Ongoing
			<ul style="list-style-type: none"> Conduct RE training programmes for journalists, media organisations and spokespersons 	Resources not identified	Ongoing
			<ul style="list-style-type: none"> Develop strategic media partnerships and engagements to expand coverage of IRENA activities 	Resources not identified.	Ongoing
			<ul style="list-style-type: none"> Conduct media relations events in target markets 	Resources not identified	Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Strengthen institutional structures and accountability	<ul style="list-style-type: none"> Facilitating the full implementation of the Headquarters Agreement and the Agreement on the IITC Seat 	In progress: <ul style="list-style-type: none"> Discussions with the Government of the UAE on a supplementary agreement to govern IRENA's occupancy of its permanent headquarters in Masdar City Regular meetings with Host Countries to address issues of mutual interest 			Ongoing
	<ul style="list-style-type: none"> Outreach to increase the number of Members granting privileges and immunities to IRENA 	In progress: <ul style="list-style-type: none"> IRENA continues to engage with States to encourage them to take actions for the implementation of Assembly decision A/3/DC/5 on an Agreement on Privileges and Immunities for IRENA. Egypt, Germany, Poland, Spain and the United States have implemented this decision. 			Ongoing
	<ul style="list-style-type: none"> Further enhancing the protection of IRENA and its interests 	In progress: <ul style="list-style-type: none"> Continuous provision of the necessary legal framework. 			Ongoing

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Thematic area: Administration and Management Services					
Objective: Support the Agency's programmatic work through comprehensive and efficient business processes that foster accountability and transparency.					
Resources (core assessed, non-assessed and other sources): 11,174 (in USD thousands)					
Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Finance	<ul style="list-style-type: none"> Comprehensive finance support to the Agency 	In progress: <ul style="list-style-type: none"> Timely processing of Payroll and Payment; Funds monitored and invested; Accounts prepared and updated 	<ul style="list-style-type: none"> Voluntary Contribution Reporting 	In progress: <ul style="list-style-type: none"> Reporting system for Voluntary contributions institutionalised <i>Resources from Programme Support Costs.</i>	Ongoing
	<ul style="list-style-type: none"> Audited IPSAS compliant Financial Statements 	In progress: <ul style="list-style-type: none"> Financial Statements for Agency and Staff Provident Fund for 2016 Prepared and Audited 			Q2 2016 - Q2 2017
	<ul style="list-style-type: none"> Streamlined, efficient and accurate business process 	In progress: <ul style="list-style-type: none"> Advice and Support provided to internal and external stakeholders; Annual billing of assessed contributions completed; collections ongoing 			Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Budget	<ul style="list-style-type: none"> • Comprehensive budgetary support to the Agency 	In progress: <ul style="list-style-type: none"> • Annual 2016 core budgetary allotments prepared and issued; Voluntary Contributions allotments prepared and issued; funds availability certified and reported upon 			Ongoing
	<ul style="list-style-type: none"> • Streamlined, efficient and accurate budgetary process 	In progress: <ul style="list-style-type: none"> • Advice and support provided to different Agency stakeholders; Enhancement and monitoring of updates to budgetary systems and applications; Monitoring and update of funds reservations and requests. 			Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Information and Communication Technology	• Comprehensive IT services to the Agency in all of its physical locations	In progress: • Global connectivity and 24 x 7 Communication services • Email services and Collaboration support • Technology support for Knowledge Management for all Divisions • Helpdesk Support • Operational Support for all ICT Portals and Websites			Ongoing
	• Comprehensive IT services to the Agency in all of its physical locations*	Not started.			Ongoing
	• ERP for IRENA in supports of integrated resources management and controls	In progress: • The approached to ERP refined to meet the needs of the Agency.			Ongoing
	• Streamlined, efficient and accurate business process	In progress: • In-sourcing of ICT support is in progress • ICT SLAs are being developed.			Ongoing
	• Streamlined, efficient and accurate business process*	Not started.			Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Human Resources	• Comprehensive HR support services	In progress			Ongoing
	• Development of the workforce planning strategy	In progress • Performance evaluation system refined.			Q2 2016
	• Facilitate work-life balance	In progress: • Ongoing discussions with the IRENA Staff Association and review of proposals for work-life balance			Ongoing
	• Systematic induction programme designed and implemented in all IRENA offices, including ethics training	In progress • Two induction sessions were completed, ongoing activities to further develop the induction programme.			Ongoing
	• Periodic staff training and development programs, including on performance management	In progress: • Needs assessment underway.			Ongoing
	• Streamlined, efficient and accurate human resource process	In progress: • Ongoing activities such as review and adjustments of the HR Rules, Policies and Manuals, as required.			Ongoing

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Component	Activities				Timeframe**
	Core	Status	Other sources	Status	
Procurement	• Comprehensive procurement support	In progress • Continuous support in undertaking Agency-wide procurement activities			Ongoing
	• Master Procurement plan for increased efficiency	In progress: Completed for 2016			Q1 2016 - Q1 2017
	• Streamlined, efficient and accurate procurement process	In progress: • Procurement SLAs are being developed, and procurement forms are under review.			Ongoing
General services & Travel	• Comprehensive travel processes and support including for governing body meetings, programmatic events and staff travel*	In progress: • Preparation and support of the 11 council meetings, and programme related travel			Quarterly
	• Key asset management system	Completed: • System procured and data uploaded			Ongoing
	• Health and safety plans in all IRENA offices*	In progress: • Safety Plan implementation in progress			Q2 2016
	• Streamlined, efficient and accurate business process*	In progress: • Continuous review			Ongoing

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