

Fifth session of the Assembly of IRENA  
Abu Dhabi, 17 – 18 January 2015

**REPORT OF THE FIFTH SESSION OF THE ASSEMBLY  
OF THE INTERNATIONAL RENEWABLE ENERGY AGENCY**

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## **Report of the fifth session of the Assembly of the International Renewable Energy Agency**

### **Agenda Item 1: Opening of the meeting**

1. The fifth session of the Assembly of the International Renewable Energy Agency (IRENA) was held on 17 and 18 January 2015 in Abu Dhabi, United Arab Emirates. There were over 1050 registered participants, including 66 Heads of State/Government and Ministers, and registered delegations from 151 countries and the European Union. These comprised 124 Members of IRENA, 19 Signatories and States in Accession, 9 other states, as well as 111 other entities.

2. The President of the fourth session of the Assembly, Mexico, represented by H.E. Francisco Leonardo Beltrán Rodríguez, Undersecretary of Planning and Energy Transition, welcomed delegations to the fifth session of the IRENA Assembly. He highlighted the previous day's discussion on *Renewable Energy in Latin America: Challenges and Opportunities*, noting that delegates had discussed strategic options and collaborative efforts which could be made to accelerate the deployment of renewable energy in the region. He made reference to the communique issued at the end of the previous day's deliberations.

### **Agenda Item 2: Organisation of work**

#### **a. Election of officials**

3. In its capacity as outgoing President, Mexico noted that the Assembly at the end of its fourth session had designated by acclamation Japan as President of the fifth session of the Assembly. He added that, at this Assembly session, Japan was represented by two Ministers: H.E. Yoichi Miyazawa, Minister of Economy, Trade and Industry, and H.E. Yasuhide Nakayama, State Minister for Foreign Affairs. The outgoing President proposed to the Assembly to elect Japan, represented by Excellencies Miyazawa and Nakayama, as President of the fifth session of the Assembly.

**4. The Assembly elected by acclamation H.E. Yoichi Miyazawa, Minister of Economy, Trade and Industry of Japan, and H.E. Yasuhide Nakayama, State Minister for Foreign Affairs of Japan, as Co-Presidents of the fifth session of the Assembly.**

5. In his opening remarks, H.E. Minister Miyazawa drew attention to the wider use of renewable energy worldwide, as well as the high expectations placed on renewable energy. In light of the world energy situation, he stated his belief that global energy demand will continue to increase in the medium to long term, accompanied by economic growth, especially in emerging countries. Accordingly, he expressed hope that IRENA will play a central role in leading the world to leverage the full potential of renewable energy and thus help balance economic growth and the mitigation of climate change. He noted that Japan

remains committed to working closely with IRENA on technology development, with a view to continuing Japan's contribution to the promotion and expansion of renewable energy.

6. H.E. Minister Nakayama noted that Japan has been strengthening its efforts for the promotion of renewable energy and is determined to take a leading role in this respect, in cooperation with IRENA. He expressed Japan's intention to advance its cooperation toward Pacific Islands and Africa through holding a capacity-building training program and an international seminar, in consideration of the '7th Pacific Islands Leaders Meeting' in Japan this year and the next 'Tokyo International Conference on African Development' for the first time in Africa in 2016. He closed by stressing Japan's strong determination to work for the resolution of world energy challenges including renewable energy.

**7. The Assembly then elected by acclamation**

- **Kazakhstan, represented by H.E. Vladimir Shkolnik, Minister of Energy;**
- **Kenya, represented by H.E. Davis Chirchir, Cabinet Secretary for Energy and Petroleum;**
- **New Zealand, represented by H.E. Mike Allen, Special Envoy for Renewable Energy; and**
- **Peru, represented by H.E. Edwin Quintanilla, Vice-Minister of Energy and Mines;**

**as Vice-Presidents of the fifth session of the Assembly.**

**8. Italy, represented by H.E. Claudio De Vincenti, Vice-Minister for Economic Development, was appointed Rapporteur.**

**Welcoming remarks of the Director-General**

9. The Director-General of IRENA, Mr. Adnan Z. Amin, welcomed all delegations and extended congratulations to Minister Miyazawa and Minister Nakayama, noting that he looks forward to working with them in the year ahead. He noted that Japan has been a strong supporter of IRENA and its work from the beginning, and expressed gratitude for the commitment of Japan to renewable energy and to the Agency.

10. He closed by noting that the Assembly session is an annual highlight for the Agency and its work, and that he looks forward to delegations' insights, thoughts, and observations that would enable reflection on IRENA's work to date as well as enrich its future work.

**Welcoming remarks of the Host Country**

11. On behalf of the Agency's host country, H.E. Sultan al Jaber, Minister of State of the United Arab Emirates (UAE), noted that the timing of the Assembly to coincide with Abu Dhabi Sustainability Week creates a synergy and a unique platform for bringing together global energy experts from the public and private sector. He noted that, as the costs of renewables continue to decline, IRENA's role will continue to grow in importance. He highlighted IRENA's achievements over the past year and, on the programmatic side, he commended IRENA's publications and reports in 2014, noting that they contributed to capacity building and knowledge dissemination in a variety of regions. He closed by highlighting that the United Arab Emirates has allocated USD 350 million since 2009 to support projects in developing countries through IRENA/ADFD partnership, one example of the strong commitment that the UAE has had and continues to have for the ongoing and future work of the Agency.

**b. Adoption of the agenda (A/5/1; A/5/INF/1)**

12. The President introduced the ‘Provisional Agenda’ (A/5/L.1).

**13. The Assembly adopted the Agenda (A/5/1).**

**c. Appointment of a Credentials Committee**

14. The President proposed to the Assembly that it appoints Angola, Cameroon, Czech Republic, Denmark, Fiji, Japan, Jordan, Sierra Leone and Yemen as members of the Credentials Committee.

**15. The Assembly appointed the proposed nine members to constitute the Credentials Committee.**

**d. Participation of observers (A/5/2)**

16. The President introduced the ‘List of applicants for observer status at the fifth session of the Assembly’ (A/5/L.2).

**17. The Assembly decided to grant observer status for its fifth session to those entities on the list (A/5/2).**

**Agenda Item 3: Annual Report of the Director-General (A/5/3)**

18. The Director-General introduced his Annual Report on the Implementation of the Work Programme and Budget for 2014-2015 by highlighting the key areas of progress the Agency made in 2014. He noted that there were over 1000 participants at the fifth session of the IRENA Assembly, at a time of significant transformation in the energy sector and growing challenges for sustainability. He added that after a few years of remarkable growth, renewables continue to make an increasingly important contribution to the world’s energy mix.

19. The Director-General also cited early estimates which indicate that 2014 will be another record year for new renewable energy installations globally, with investment in renewable generating capacity more than five times what it was a decade ago. He highlighted that innovation and investment have dramatically lowered costs, and new financing mechanisms for clean energy have seen considerable growth. He stressed that renewable energy is becoming increasingly central to a global transition to a low carbon pathway and a viable instrument in the fight against climate change.

20. He highlighted IRENA’s annual publication *REthinking Energy*, whose first edition was launched in fall 2014 in Abu Dhabi, Paris, New York and Tokyo. He noted that this publication examines the role of renewable energy in the transformation towards a clean energy system, a transformation requiring the collective, long-term commitment of all stakeholders, including governments, citizens, financiers, private sector and international agencies. He outlined that momentum for energy transformation is being created by declining technology costs, clear examples of success around the world, better business models and increasing investment in renewables.

21. The Director-General also drew attention to some of IRENA's programmatic activities. He pointed to the *Renewable Power Generation Costs in 2014* report, which demonstrates a sustained decline of the cost of renewable energy technologies, and which provides authoritative information for governments and investors around the world. He mentioned work undertaken on REmap 2030, and the report launched during the Sustainable Energy for All (SE4ALL) forum in New York in June 2014, which demonstrates that renewable energy, coupled with energy efficiency, can meet the world's rising energy demand more sustainably and cheaply than conventional energy sources. As part of this analysis, he noted that, in cooperation with national experts, IRENA continues to examine REmap technology options for individual countries to demonstrate the renewable energy potential within specific circumstances. The Director-General also elaborated on IRENA's annual review of renewable energy and jobs, released at the 2014 Clean Energy Ministerial, which highlights that the renewable energy sector has become a major employer, supporting around 6.5 million jobs (14% increase since 2012). He drew attention to IRENA's projection that, if REmap options result in a doubling of renewable energy by 2030, employment could grow to 16.7 million, increasing prosperity around the world. The Director-General highlighted IRENA's report on *Renewable Energy in the Water, Energy and Food Nexus*, which provides a detailed analysis of how renewable energy can help address some of the most pressing challenges in the interlinkages between the water, energy and food sectors.

22. He raised the issue of renewable energy financing, noting that amid the advances in deployment of renewable energy, financial flows are still not reaching the necessary scale due to a number of perceived risks and barriers. Because of this, IRENA has been focusing on better understanding these obstacles and on analysing risk mitigation options, with plans to establish a virtual project facilitation platform to support countries in dealing with these barriers.

23. He highlighted the Agency's work on off-grid applications, and the 2014 International Off-grid Renewable Energy Conference (IOREC), held in June 2014 in the Philippines, which emphasised that off-grid and mini-grid renewable energy systems are now the most cost effective solution for electrification in the majority of rural areas, showing that renewables can bring power to people currently without access to energy, promoting productive uses, spurring education, allowing access to modern communication, transforming lives and offering a host of new economic opportunities.

24. The Director-General provided an update on IRENA's Renewables Readiness Assessment (RRA) process, reporting that 22 RRAs have been completed since 2011 and that IRENA is in the process of analysing the trends and impact of completed RRAs, which will enable the Agency to shape future programmatic activities to assist countries in their renewable energy strategies. He also noted that there has been significant progress made in 2014 on IRENA's two initiatives launched at the United Nations Secretary-General's Climate Summit, the Africa Clean Energy Corridor (ACEC) Initiative and Small Island Developing States (SIDS) Lighthouses Initiative, both of which address the positive impact renewable energy can have on climate change.

25. The Director-General stressed that the Agency is aware that a critical part of its work is effective communication and outreach, both with IRENA's Members, and with many stakeholders and the public. He referred delegations to the Annual Report on the Implementation of the Work Programme and Budget for 2014-2015 (A/5/3) for a full account of IRENA's programmatic activities, presented in an impact-oriented manner, to demonstrate progress in advancing IRENA's mission of accelerating the deployment of renewables worldwide.

26. The Director-General thanked Members for their timely and generous provision of resources, with IRENA having received USD 19.2 million in assessed contributions for 2014 (over 96% of the budget).

He also expressed gratitude to Belgium, France, Germany, Iceland, Japan, New Zealand, Norway, Switzerland and the UAE for their generous voluntary contribution pledges totalling over USD 12 million, of which over USD 5 million were received, with a number in the process of donor agreement development. He noted that these additional contributions demonstrate confidence in the Agency and its work and also enable IRENA to strengthen its programmatic activities.

27. The Director-General closed by noting that the story of renewables continues to evolve and that renewables' significance in securing a sustainable energy future is increasingly evident. He expressed confidence that, with continuing and active engagement of Members, IRENA can meet expectations and advance the important mission entrusted to it.

28. In the discussion that followed, many delegations emphasised their continued support for IRENA, commending the Agency for its ongoing membership growth and increased international visibility and acknowledgement for activities completed in 2014.

29. Several delegations pointed out what they consider to be IRENA's key programmatic activities in 2014, including the Global Atlas, innovative mechanisms to show true cost of renewable energy projects, *REsource*, and the REmap 2030 analysis. Delegations also expressed appreciation for the quality of IRENA's publications, especially the first institutional publication *REthinking Energy* and the report on costing. Other delegations supported IRENA's continued involvement in the UN Secretary-General's SE4ALL Initiative as the hub for renewable energy. Some delegations emphasised that IRENA's work on off-grid renewable energy applications is useful especially for countries for whom energy access remains an issue for a significant portion of the population.

30. One delegation highlighted its priority areas for IRENA's work in 2015, namely that the Agency should endeavour to recruit and retain qualified staff and fill open positions in senior management; complete the 2014-2015 Work Programme deliverables and prepare the 2016-2017 biennial Work Programme and Budget in consultation with Members; improve recognition of IRENA deliverables; and devise creative financing mechanisms. Another delegation urged that IRENA further work on disseminating the outcomes of reports and initiatives, in order to provide examples for other countries.

31. Some delegations expressed support for IRENA's grid integration initiatives and noted that nations with high shares of renewable energy in their systems could share their experiences.

32. Some delegations highlighted IRENA's potential to assist in new areas of research, for example in the areas of biofuels, biomass energy utilisation, energy storage solutions, transportation and geothermal energy. One delegation requested that IRENA consider including large hydropower in its costing reports to encompass fully all types of renewable energy.

33. Several delegations expressed support for IRENA's work on the Africa Clean Energy Corridor (ACEC). In this context, one of these delegations stated that it looks to regional clean energy corridors as a compelling solution, since geographically-interconnected regional initiatives can lead to the cost efficient, effective and environmentally sustainable use of resources, and noted that it would like to see a practical action plan and next steps for ACEC clearly defined. Other delegations supported similar work in Latin America, on the Central American Clean Energy Corridor and on rural energy projects in the region, as well as in Asia.

34. Several delegations highlighted their participation in the 3<sup>rd</sup> International Small Island Developing States (SIDS) Conference in Samoa and in the SIDS Lighthouses Initiative, noting that partnerships

between SIDS and other stakeholders are crucial for development in island energy sectors, and for transformation of national, regional, and international initiatives to better support vulnerable SIDS. One delegation noted that the coordination of donor programs on the ground and the development of an investment prospectus for each island would further facilitate renewable energy deployment on small islands.

35. Some delegations reaffirmed that climate change is becoming a driving force for the deployment of renewable energy, for a low-carbon economy and for the survival of SIDS amid the increasing frequency of extreme weather events related to climate change.

36. Several delegations underscored the importance of renewable energy investment, and in shifting capital from one energy sector to another to reduce reliance on and investment in fossil fuels, noting that IRENA has already had a significant role in facilitating this transition by dispelling misperceptions about the cost of renewable energy technologies. Other delegations noted that IRENA's message in 2015 accordingly should focus on the cost competitiveness of renewable energy, as this is an important incentive for the uptake of renewable energy, and can attract the attention of investors. Several delegations raised the point that securing initial financing for renewable energy projects remains a common major barrier to the uptake of renewables in developing countries, and in this respect supported the continued work of the IRENA/ADFD Project Facility as well as cooperation on projects to reduce costs. Another delegation requested IRENA's support in structuring financial mechanisms and in modelling public private partnerships.

37. Some delegations noted that falling oil prices could be a game-changer in the energy market and that 2015 would be an important year to broadcast the financial competitiveness of renewable energy and make the business case. In this context, delegations underscored the importance they placed on diversifying energy resources and noted that there was a role for IRENA in providing analysis of the effect of decreasing oil prices on renewable energy investment.

38. Some delegations noted the significance of IRENA's assistance in developing appropriate legislative frameworks for supporting the transition of their energy sectors. A delegation further noted that, on a global scale, there was a need for energy policies that encourage the transition from fossil fuels to renewable energy, and that create an enabling environment for private sector investment in renewable energy.

39. Several delegations highlighted the importance of cooperation among Members in order to share knowledge and take advantage of collective expertise, and looked forward to working with other Members toward a shared vision for a sustainable future. One delegation noted that IRENA's responsiveness to its Members distinguishes it from other intergovernmental organisations, drawing attention to the need to balance institutional expansion with the capacity to address the needs of the membership.

40. Delegations emphasized the importance of creating synergies through partnerships between IRENA and other organisations, particularly in the areas of industry and business. Others noted that IRENA could be a hub to unite many organisations and companies working in renewable energy fields, while maintaining a clear mission with well-defined and understood services. Two delegations underscored the importance for IRENA to remain focused on its mandate and on analytical products in order to avoid duplication of work with other organisations, especially since IRENA's targeted work will gain attention as renewable energy technology becomes more prevalent and less expensive.

41. The Renewables Readiness Assessment (RRA) was highlighted as a valuable tool, and countries in which RRAs have been recently completed thanked IRENA and expressed readiness to engage with partners in implementing the steps outlined, noting that this could be a springboard for the energy transition.

42. Delegations expressed support for IRENA's continued capacity building activities and urged IRENA to engage in more initiatives to reinforce local institutions and their energy planning. One delegation shared its proposal for a renewable energy university, to train students to install and repair rooftop solar panels and other renewable energy technological components.

43. One delegation stressed the importance of multilingualism in IRENA's activities, noting in particular that the use of the Russian language in documents and interpretation would encourage increased involvement of Russian-speaking countries in the Agency.

**44. The Assembly considered and took note with appreciation of the 'Annual report of the Director-General on the Implementation of the Work Programme and Budget for 2014-2015' (A/5/3).**

#### **Agenda Item 4: Appointment of the Director-General**

45. The Chair of the seventh meeting of the IRENA Council, Mr. Ramón Mendez of Uruguay, introduced the matter. He recalled that, through decision A/1/DC/12, the first Assembly had appointed by acclamation the first Director-General of IRENA, Mr. Adnan Z. Amin, whose first term would come to a close in April 2015. The Council Chair noted that, as per the applicable procedures, the incumbent Director-General had submitted a letter expressing his intent to seek renewal of his appointment, which was transmitted to all IRENA Members in March 2014 with an invitation to provide their views on the matter as part of a consultation process prior to the seventh Council meeting. The Council Chair further recalled that, at the seventh meeting of the Council, Mr. Amin had presented his vision for the Agency's future to IRENA Members. After this presentation, IRENA Members had expressed their support for the renewal of the incumbent Director-General for a second term and voiced strong support both for the future of the Agency and for the Director-General. The Council Chair referred delegations to the report of that Council meeting (as contained in C/7/SR/1, particularly paragraphs 54 and 55) for a full account of discussions, and communicated to the Assembly that the Council had unanimously recommended the renewal of the Director-General's appointment.

46. The Director-General expressed his deep appreciation for the support that had been expressed, and recalled that, four years prior, countries had decided to build an institution for a new age, one which was agile, flexible, and focused on the opportunities of the future rather than the problems of the past. He recalled that IRENA had had to develop operational modalities from the ground up, and that in the intervening years the Agency had established a structure that earned Members' confidence, and that enabled the Agency to identify the key issues that Members would want to prioritise as IRENA grew.

47. He reflected that IRENA's principle of inclusion has helped the Agency to succeed, through a focus on the issues that bring Members together, noting that all present cared about the future of the earth and the sustainable use of its resources. The Director-General recalled that, in IRENA's first four years, there had been a dramatic change in the energy sector, and that IRENA as an organisation has been responsive to the demands and expectations of a new era. He drew attention to systemic changes in the energy sector,



most notably that renewable energy has fallen dramatically in cost, changing the price equation and prompting the need to change the mistaken narrative that renewable energy is expensive. He added that, in the long-term perspective once the technology costs make renewables competitive, countries that have sustainable long-term policies and enabling markets will be the most stable and productive. He noted that renewable energy projects are successful in market after market, and that oil-producing countries are looking at a renewable energy future, a sign of the further systemic changes to come.

48. The Director-General highlighted that new markets for renewable energy have opened, and that market transformations are changing the way that investments happen through innovative financing mechanisms. He added that, despite the instability and the fall in oil prices, the outlook for renewable energy is fundamentally sound and that IRENA will be instrumental in guiding the shift in the global energy system.

49. He stressed that IRENA continues to make the business case for renewables, it has provided regulatory tools and advice, and has helped Members make significant advances with this approach. He added that Members' decisions today will enable the Agency to play the role that Members all desire and envision for it as the global voice of renewable energy in the future.

50. He stressed that IRENA's Medium-term Strategy is still a sound guide and an important tool, with its focus on knowledge and fashioning IRENA as the repository of renewable energy information, as well as an advisory resource for Members. He pointed to the need for balance between purely technical, policy and deliberative work on the one hand, and on the other direct interaction with governments to provide them with the practical information that they need. He expressed commitment to ensuring that IRENA remains and grows in its role as a connecting force – between and among the private sector, coalitions for action and civil society on renewable energy issues.

51. He noted that utilities are facing disruptive change and pressure from de-centralised generation. In light of this, he noted that IRENA needs to engage with all concerned including utilities and regulators, in order to foster cooperative mechanisms that enable its Members to move to the next energy phase sustainably and without serious disruption.

52. The Director-General also highlighted the connection between climate change and renewable energy, noting that 2014 was the hottest year on record.

53. He stressed that since decarbonisation of energy is the quickest way to release the world from the grip of climate change, IRENA as an organisation can no longer stay apart from this debate. In this context, he briefly described a series of specific areas of opportunity for IRENA's work. These include the SIDS Lighthouses Initiative, as well as the Africa Clean Energy Corridor. He also noted that Latin American countries are charting a similar course toward a regional clean energy corridor. He added that, as grid connections between countries continue to be established, there are increasing regional renewable energy opportunities, and that the Middle East and North Africa may soon be not only exporters of oil, but also of renewable energy. He also mentioned energy security as an emerging field of activity for the Agency.

54. The Director-General described other improvements in the Agency since its founding, including efficient administrative services, while noting that, in view of the Agency's growth in size and scope, IRENA does need to strengthen its management and administration services. He also noted that there needs to be a better feedback loop in terms of assessing qualitative impact to incorporate this input into the Agency's programme of work. He also commented that, on the programmatic side, there are areas that need strengthening and further development, such as the development of a broader framework for

engagement with the private sector, including with small-to-medium enterprises (SMEs). He also pointed to the need, given continued fiscal constraints of Members, to consider the Agency's resource base and to diversify it through innovative financing strategies.

55. In closing, the Director-General stated that these and other ideas, in consultation with Members, would be part of the exhaustive discussion of IRENA's next Medium-term Strategy and next biennial Work Programme and Budget for 2016-2017. He stressed that, should the Assembly decide to appoint him for another term as Director-General, he would renew his pledge of full commitment to continue the growth of the Agency in an inclusive, transparent and responsive manner.

56. In the discussion that followed, widespread support was expressed for the renewal of Director-General Amin's appointment for another four-year term. Many delegations thanked the Director-General for his presentation and recognised his stewardship and strategic vision over the previous four years. They commended his work in building and strengthening IRENA, and praised the Agency's efforts and accomplishments since his appointment.

57. Several delegations commended the Director-General for his work in further enhancing IRENA's international recognition and reputation, noting that during his first term, IRENA has developed into a global, authoritative organisation in a short amount of time. Delegations noted the Director-General's role in helping the Agency emerge from a challenging situation at its founding and in four years to become an essential platform for discussions on renewable energy.

58. Delegations also noted that IRENA's rapid expansion in membership shows the leadership role the Agency is taking within the field of renewable energy and in enhancing the dialogue on renewable energy as part of the international energy, climate and development debate. In this context, a delegation commended IRENA for building partnerships with other key national and international organisations.

59. Delegations in turn emphasised what, for them, were the significant administrative and programmatic achievements of IRENA during the first term of the Director-General. One delegation pointed to the development of strong governance structures for the management of the Agency. Another delegation underscored the contribution IRENA is making in raising understanding and public awareness in promoting global renewable energy development. Others highlighted the several tools IRENA has developed along with other stakeholders to promote renewable energy at all levels, especially the REmap 2030 roadmap, IRENA's first institutional publication *REthinking Energy*, and IRENA's Knowledge Gateway *REsource*. A delegation noted the quality and successful dissemination of the Agency's publications and technology briefs, and expressed appreciation for IRENA's training and capacity building programmes.

60. Two delegations thanked the Director-General for the attention he has shown in addressing the energy challenges that islands face, and for IRENA's assistance in promoting renewable energy projects particularly on Pacific Islands and through the SIDS Lighthouses Initiative. A delegation commended the Agency for progress on the Africa Clean Energy Corridor. Another delegation thanked IRENA for convening the meeting on Latin-American countries prior to the Assembly, noting that it would further enhance the collaboration between IRENA and the region. One delegation looked forward to future collaboration between IRENA and ASEAN.

61. Delegations thanked IRENA for the completion of Renewables Readiness Assessments (RRAs), and for assistance through the IRENA Project Navigator. Some delegations pointed to their ongoing work with IRENA for renewable energy development, including studies on biomass energy utilisation, renewable energy mapping, and the development of legislation to encourage uptake of renewables.

Another delegation emphasised the importance of IRENA's off-grid work to enhance electrification rates in rural areas and improve basic energy infrastructure.

62. One delegation highlighted its priority areas for IRENA's future development, including the consideration and integration of monitoring and evaluation mechanisms into the Agency's activities, and ensuring that a project management approach is embedded when developing the 2016-2017 Work Programme and Budget, one that works toward focused, strategically-considered outcomes with the resources apportioned according to the impact expected. This delegation also mentioned that Members are facing budgetary constraints and would look to the Director-General to handle finances deftly and to maximise the value for money in the coming biennium.

63. Many delegations expressed commitment to the Agency and looked forward to continuing close collaboration and knowledge-sharing with IRENA on their individual renewable energy plans and goals, and especially in addressing their respective challenges in the increased uptake of renewables.

64. In his closing remarks, the Director-General thanked Members for their support, and noted he was humbled and encouraged by the confidence they had expressed in his leadership to carry the Agency forward, in collaboration with Members, at this transformational time.

**65. The Assembly appointed by acclamation Mr. Adnan Z. Amin as Director-General of IRENA for an additional four-year term.**

#### **Agenda Item 5: Programmatic Discussion on Renewable Power Generation Costs (A/5/DN/1)**

66. The Director of IRENA's Knowledge, Policy and Finance Centre, Mr. Henning Wuester, introduced the topic by noting that despite falling renewable power generation technology costs, national policies are not always adequate to create an environment to foster investment. The Secretariat noted that timely and up-to-date data on the costs and performance of renewable power generation technologies can help inform policy-makers, dispel myths and encourage the right policy and regulatory environments to encourage an uptake of renewables worldwide.

67. A representative of the Secretariat presented IRENA's latest analysis on the Renewable Power Generation Costs in 2014. He drew attention to dynamic market evolutions with renewable energy deployment reaching 120 GW per year and more coupled with falling costs. It was stated that the long term economics of power generation technologies will drive the transition to a sustainable energy future, while the mix of technologies and the speed of transition will be determined by the long term costs and policies that affect the energy pricing structure.

68. He acknowledged that challenges remain: the cost of capital is often still high and perceived risks and other barriers to investments are preventing investments from reaching required levels for further deployment. He added that policies are not always adequate to create the fertile environment to foster investment, regulations are often still not creating level playing fields for all sources of energy; and that these challenges are compounded by under-priced externalities, such as health and climate costs, of fossil fuels.

69. The representative of the Secretariat noted that fossil fuel subsidies are today estimated to be five

times higher than support for renewable energy technologies. He underlined that with falling technology costs, and volatile oil prices the need for timely and up-to-date data on the performance and costs of renewable power generation technologies performance and costs to inform policy-makers globally has never been greater.

70. Key report findings show a continued improvement in renewables' competitiveness in 2014. The analysis demonstrates that renewables are currently competitive with fossil fuels without subsidies at utility scale and remain competitive even when integrating variable renewables. Between 2010 and 2014, the weighted average cost of electricity from solar photovoltaic (PV), concentrated solar power (CSP), onshore and offshore wind have all come down. Solar PV fell rapidly and is now in the cost range of fossil fuel fired electricity at a utility scale. Onshore wind is now also a technology which is providing highly competitive power generation costs. Although costs for hydropower, geothermal and biomass for power generation are relatively static, these are mature technologies and already offer some of the lowest cost opportunities available today. CSP and offshore wind are at very early stage of deployment and it is expected that costs will come down as these technologies are deployed.

71. The representative of the Secretariat emphasised that future cost reductions are shifting away from traditional equipment cost declines to policy-driven declines with respect to the balance of project costs, operations and maintenance costs, and financing costs. Although potentially challenging to unlock, these cost reductions are fundamentally policy driven. He closed by noting that therefore effective policy levers will be increasingly required to unlock renewable energy technology cost reductions.

72. A representative of Italy noted its appreciation for the analysis, stating that transparent and up-to-date cost and performance data for renewable power technologies are required to set the right support measures and to enable investor decisions for the development of renewable energy technologies. It was observed that although renewable technology costs had decreased by almost 70% in Italy, renewable producer incentives still represented a significant expenditure for energy consumers. In this context, data monitoring activities were identified as an effective tool to enable timely responses to changes in regulation and their implementation. Finally, the Italian delegation stated that in-depth knowledge of renewable energy technology and finance costs would contribute positively to the formulation of effective long-term strategic priorities where goals, targets, and the tools and instruments needed to achieve these are clearly identified.

73. Uruguay noted that its transition to higher shares of renewable energy deployment was made possible through the development of long-term energy policies, new regulations which encourage research and development, by promoting long-term power purchase agreements and reducing investor risk. Due to the successful implementation of these guidelines, Uruguay has integrated solar PV and wind at a price of USD 0.06 / kW and are incorporating non-conventional renewable energy technologies into the grid thus reducing by 5% the cost of power generation.

74. In the discussion that followed, one Member presented an overview of national operations and maintenance costs, construction costs and capacity factors for technologies used domestically.

75. In its concluding remarks, the Secretariat emphasised that current deployment of renewables is not sufficient to avoid the impacts of climate change or to achieve a sustainable energy future. It is vital that Member States, together with partners, start thinking about where we need to be 10-15 years from now and act to implement this vision.

**76. The Assembly took note of the presentation and discussion.**

**Agenda Item 6: Institutional matters****a. Report of the Credentials Committee (A/5/4)**

77. The Chair of the Credentials Committee, H.E. Iya Tidjani of Cameroon, introduced the Report of the Credentials Committee (A/5/4). Based on its examination of the credentials received by the Secretariat, the Committee had determined that 113 Members had submitted credentials in the form required by Rule 24 of the Rules of Procedure of the Assembly, and recommended to the Assembly that these Members be entitled to participate in its fifth session. The Committee also noted that a number of delegations attending the fifth session of the Assembly had not submitted any credentials and invited these delegations to fulfil this requirement.

**78. The Assembly took note of the Report of the Credentials Committee, contained in document A/5/4.**

**b. Council election (A/5/DC/1)**

79. The Council Chair introduced the item, and referred the Assembly to the proposed list of Council members for the years 2015-2016, as submitted by the Council Chair following consultations among Members and contained in the annex of the related draft decision (A/5/DC/L.1).

**80. The Assembly adopted decision A/5/DC/1 on the membership of the Council of IRENA.**

**81. The President encouraged the newly-elected members of the Council, under the stewardship of the outgoing Council Chair, to designate a Chair and Vice-Chair of the ninth meeting of the Council at their earliest convenience, noting that the ninth meeting of the Council is scheduled for 10 and 11 June 2015 in Abu Dhabi.**

**c. Rules of Procedure for subsidiary organs of the Council (A/5/5; A/5/DC/2)**

82. The Legal Advisor, Ms. Marianne Lavergne, introduced the item, drawing the Assembly's attention to the Note by the Secretariat on Rules of Procedure of the Assembly and of the Council of IRENA (A/5/5) and the related draft decision (A/5/DC/L.2).

**83. The Assembly took note of the Note by the Secretariat on Rules of Procedure of the Assembly and of the Council of IRENA (A/5/5) and adopted decision A/5/DC/2.**

**d. Staff Provident Fund of IRENA (A/5/6; A/5/7; A/5/8; A/5/DC/3; A/5/DC/4)**

84. Mr Jayantilal M. Karia, in his capacity as the Chair of the Provident Fund Management Board, introduced the item and referred delegations to the Note from the Provident Fund Management Board on the 2013 Annual Report of the Provident Fund Management Board on the Operations of the Staff Provident Fund of IRENA and Audited Financial Statements of the Staff Provident Fund for 2013 (A/5/6), as well as to the Report of the Provident Fund Management Board on Amendments to the Charter and Administrative Rules of the IRENA Staff Provident Fund (A/5/7) together with the related

draft decision (A/5/DC/L.3). He also referred to the Note on the Revised Investment Policy of the Staff Provident Fund (A/5/8), and related draft decision (A/5/DC/L.4).

**85. The Assembly took note of the reports and note by the Provident Fund Management Board submitted under this item (A/5/6; A/5/7; A/5/8) and adopted decisions A/5/DC/3 and A/5/DC/4.**

**86. The Assembly appointed Germany and the United Arab Emirates to serve on the Provident Fund Management Board.**

**e. Staff Regulations and Rules (A/5/9; A/5/DC/5)**

87. The Director of Administration and Management Services, Mr. Jayantilal M. Karia, introduced the Report of the Director-General on Amendments to the Staff Regulations and Rules (A/5/9) and the related draft decision (A/5/DC/L.5).

**88. The Assembly took note of the Report of the Director-General on Amendments to the Staff Regulations and Rules (A/5/9) and adopted decision A/5/DC/5.**

**f. Secondment and related matters (A/5/10)**

89. The Director of Administration and Management Services introduced the Report of the Director-General on Secondment and Related Matters (A/5/10).

90. One delegation underscored the importance of sending personnel to IRENA, including to the IRENA Innovation and Technology Centre in Bonn, Germany.

**91. The Assembly took note of the Report of the Director-General on Secondment and Related Matters (A/5/10).**

**g. Administration of justice (A/5/11; A/5/DC/L.6)**

92. The Legal Advisor introduced the Report of the Director-General on the Operation of the Arbitration System for IRENA (A/5/11) and the draft decision on the Administration of Justice at IRENA (A/5/DC/L.6).

**93. The Assembly took note of the Report of the Director-General on the Operation of the Arbitration System for IRENA (A/5/11) and adopted decision A/5/DC/6.**

**h. Report of the Ethics Officer (A/5/12)**

94. The Ethics Officer, Ms. Salma Khalid, presented her report on the Implementation of the Policy on Ethics and Conflict of Interest (A/5/12).

**95. The Assembly took note of the Report of the Ethics Officer on the Implementation of the Policy on Ethics and Conflict of Interest (A/5/12).**

**i. Audited Financial Statements for 2013 and status of the implementation of audit recommendations (A/5/14; A/5/13)**

96. The Director of Administration and Management Services introduced the Audited Financial Statements of the Agency for 2013 together with the related reports of the External Auditor (A/5/14), as well as the Report of the Director-General on the Status of the Implementation of the Audit Recommendations (A/5/13).

**97. The Assembly took note with appreciation of the Audited Financial Statements of the Agency for 2013 (A/5/14) and the Report of the Director-General on the Status of the Implementation of the Audit Recommendations (A/5/13).**

**j. Indicative IRENA scale of contributions for 2015 (A/5/15; A/5/DC/7)**

98. The Director of Administration and Management Services introduced the Report of the Director-General on the Indicative IRENA Scale of Contributions for 2015 (A/5/15) and the related draft decision (A/5/DC/L.7), noting that further adjustments had been made to the scale since it was presented at the eighth meeting of the Council to account for additional Members who joined the Agency in the intervening period.

99. One delegation noted that, with decision A/4/DC/1, the fourth Assembly adopted the biennial Work Programme and Budget for 2014-2015 with a core assessed budget of USD 40 million, which translated to an assessment for 2014 of USD 20 million based on 124 IRENA Members. This delegation underscored that, with the number of Members having increased to 139 since then, there would be a reduction of individual Members' financial obligations toward IRENA and corresponding adjustments to assessments for 2015 would be made as mentioned by the Secretariat. This delegation accordingly called on Members to reallocate any reductions in assessments resulting from the adjustments as voluntary contributions to the Agency, which could be used in areas such as outreach activities. Another delegation seconded this proposal.

**100. The Assembly took note of the Report of the Director-General on the Indicative IRENA Scale of Contributions for 2015 (A/5/15), adopted decision A/5/DC/7, and encouraged Members to consider the proposal that was put forward.**

**Agenda Item 7: Programmatic Discussion on Off-Grid Renewable Energy Deployment (A/5/DN/2)**

101. The Director-General opened the discussion by highlighting that expanding access to modern energy services is among the most pressing challenges for many developing countries. Quoting the United Nations Secretary General, he added that sustainable energy is the golden thread that connects economic

growth, increased social equity and an environment that allows the world to thrive. The Director-General welcomed Mr. Kandeh Yumkella, Chief Executive of the Sustainable Energy for All Initiative, which advances the objective of attaining universal access to modern energy by 2030. This would entail bringing clean, sustainable, affordable and reliable energy to over 1.3 billion people currently living without electricity and 2.4 billion who rely on traditional biomass for heating and cooking.

102. The Director-General emphasised that it is an ambitious objective, but a necessary one. He added that to meet the target, the pace of electricity access expansion will have to nearly double. There is, therefore, an urgent need to substantially scale-up efforts. He stressed that off-grid renewable energy technologies will have a crucial role to play in this regard, as the technology is cost-competitive, modular, adaptable and environmentally-sustainable. IRENA's analysis of power generation costs has shown that renewable energy technologies are the most cost-competitive option for electrification in many rural areas and islands. In triggering a rapid scale-up in deployment of off-grid solutions, the Director-General highlighted the importance of creating an enabling environment that can attract private sector participation in the sector. IRENA's programmatic activities are designed to focus on the key building blocks of such an environment – policy, financing, technology and capacity building. He added that in addition to the programmatic issues, emphasis should also be laid on the creation of a sound knowledge base to assess the different socio-economic impacts of efforts to increase energy access, so decisions on further investments in the sector can be made objectively. The Director-General introduced Mr. Yumkella and invited him to take the floor, to be followed by a presentation by the Deputy Director of IRENA's Knowledge, Policy and Finance Centre and the Director of the IRENA Innovation and Technology Centre to present further insights on IRENA's activities in the field.

103. Mr Yumkella commended IRENA for playing an instrumental role in positioning sustainable energy as a key pillar of the global development agenda. He emphasised that the challenge now is to ensure that universal access to modern energy services can be achieved in a timely and sustainable manner. Mr. Yumkella then proceeded to provide three key reasons why off-grid renewable energy technologies will be crucial to meeting the goals. First, the incubation period of large-scale infrastructure projects is at least 3 to 5 years. In the same timeframe, millions of energy entrepreneurs could be deploying already existing off-grid solutions more rapidly without rural communities having to wait for large projects to materialize. What is necessary are the right market conditions that support the widespread adoption of such solutions. Second, off-grid solutions directly link the provision of energy supply with the social development agenda at the community-level. They can be in the hands of local communities and can increase productivity and accelerate socio-economic development. He emphasised that addressing energy poverty will require millions of energy entrepreneurs which can be made possible through the concerted efforts of governments, private sector, civil society and financing institutions. Third, project development facilities can help scale up many of the off-grid solutions that currently face challenges in the initial pre-investment stage. Mr. Yumkella noted that IRENA can help showcase the business opportunity and build capacities within countries to enable a scale-up in local energy enterprises. He cautioned that these enterprises need to be supported through a service industry, such as micro-financing institutions and mobile payment service providers that can help reduce costs. In conclusion, Mr. Yumkella stressed that together SE4ALL, IRENA and other stakeholders can help support millions of energy entrepreneurs in developing countries, and thus contribute to the attainment of the set development goals.

104. The Deputy Director of KPFC, Ms. Rabia Ferroukhi, began her presentation by highlighting that modern energy is a vital pre-requisite for stimulating economic growth, transforming rural economies and is a critical pathway towards ending poverty. Over the past two decades, the rural electrification rate only grew from 61% to 70% globally. This global number hides geographical disparity with rural electrification rates in Sub-Saharan Africa and South-Asia, which reached 18 and 75 per cent,



respectively. She highlighted that off-grid renewable energy solutions will be central to expanding access in rural areas given their decentralised nature and that they already represent the economic option for off-grid electrification in most areas. Translating this opportunity into deployment requires stakeholders to collectively identify context-specific barriers and to formulate appropriate solutions. To facilitate such engagement, she noted that IRENA's International Off-grid Renewable Energy Conference (IOREC) serves as a crucial platform.

105. The Deputy Director highlighted that the focus of the first edition of IOREC, held in 2012, was on Africa. With IOREC 2014, the focus expanded to South and South East Asia. She highlighted that the IOREC platform is now a definitive global forum to discuss pathways to scaling-up off-grid renewable energy deployment and accelerate energy access efforts. Some key messages from the conference, held in Manila, Philippines, were presented, which included the need to recognise the role of off-grid solutions within national electrification strategies, to allow private sector participation in the off-grid sector, and to enhance the sustainability of energy access efforts. Attracting private sector participation requires an environment that is based on an enabling policy, regulatory and institutional framework, along with tailored financing models and adapting technologies to rural contexts. She emphasised that it is only when such an environment exists that the growth of local energy enterprises can be catalysed with the necessary outreach. Delivering affordable financing is a key challenge. The Deputy Director noted that financing is increasingly available on international markets, but governments and financing institutions need to rethink mechanisms through which the capital can be made more accessible to entrepreneurs and end-users. Moreover, to ensure the viability of mini-grid projects, tariffs need to be cost-reflective and tailored to local conditions. She also highlighted the importance of capacity building and introduced some of the key initiatives undertaken by IRENA's Country Support and Partnerships Division, including the ProSPER initiative in the ECOWAS region, to support skills development.

106. The Director of IITC, Mr. Dolf Gielen, continued the presentation by focusing on the technology and economic aspects. He informed the audience of IRENA's recently published working paper *Renewable energy off-grid systems status report and methodological issues*. The analysis finds that there are two distinct markets: 1) expanding access to those who are currently deprived of electricity; and 2) retrofitting existing diesel power generation systems. From a technology perspective, the off-grid market can further be divided into mini-grids and stand-alone systems, both of which have already been deployed at a reasonable scale today. The Director highlighted that there are around 26 million households that are served by off-grid solutions – 20 million through solar home systems, 5 million through mini-grids and 1 million through small wind turbines. There is an existing capacity of 400 GW off-grid diesel generators worldwide, with a potential of 200-250 GW that can be hybridised with renewables including 12 GW on islands. He added that there is also a significant market in productive uses such as solar pumping and telecommunication towers. In Africa, for instance, there will soon be 300 000 telecom towers that will require decentralised power. The bulk of them today source power from diesel systems but there is a very strong economic case to switch to renewables. Similarly in India, there are over 500 000 telecom towers (more than half in rural areas) with only 2% fuelled with renewables. In addition to a compelling economic case, there is also a strong policy directive in India to have 75% of the rural telecom towers and 33% of urban towers supplied with renewable energy by 2020.

107. In island contexts, the Director highlighted that in the past year IRENA has conducted an analysis for Tonga to assess how increasing renewable energy impacts tariffs for consumers. The analysis concluded that in the long-term there is a 10-15% tariff reduction possible if Tonga moved to 50% renewable energy. He emphasised that there are, however, some challenges. Utilities have expressed concerns about grid stability when replacing existing diesel generators with renewable energy. In addition, the characteristics of existing diesel-based grids limit the uptake of renewables requiring

upgrade of diesel generators or the grid itself. There is also a lack of knowledge on the opportunities offered by renewable energy technologies as the field is rapidly evolving. In terms of technology solution, increasing standardisation and adoption of plug-and-play solutions can help facilitate the uptake of off-grid renewable energy solutions. There has been a rapid development in hardware and now a whole range of smart-grid technology options are available to integrate higher shares of renewables. He highlighted that electricity storage systems, notably batteries, continue to see decreasing costs, further complemented by innovative demand side response options such as the combination of renewable power and desalination and the integration of electric vehicles. On the policy side, he emphasised that there is a need for more awareness, access to information on best practices and experience to-date, available grid codes and standards, grid stability assessments and capacity building.

108. In the discussion that followed, several delegations emphasised that off-grid renewable energy solutions are increasingly the way forward for expanding electricity access to rural communities. Delegations noted that off-grid renewable solutions are crucial to reduce poverty and provide a low-carbon, affordable and sustainable source of livelihood. Several delegations highlighted that solar solutions have been deployed to power schools, health centres and security outposts. Some of the remote schools have seen a boost in teaching and learning with the provision of solar power for ICT programmes. Delegations highlighted that renewable energy solutions are also being deployed in the agriculture sector to expand irrigation as well as in the mining sector where increasing use of renewable energy can lower costs and increase energy security by reducing diesel use.

109. Several delegations shared their experience with deploying off-grid renewable energy solutions. They highlighted that efforts to accelerate the deployment of such solutions will require both the governments and private sector to play an important role. This can be achieved by formulating enabling policies, improving access to affordable financing through de-risking instruments, enabling innovation in financing and ownership structures, promoting sustainable business models, ensuring standardisation of technology design, introducing quality control measures, establishing reliable after-sales service, promoting energy efficient appliances and improving coordination between development agencies. One delegation stressed that for any off-grid electrification policy or programme to be successful, the issue of access to financing will need to be addressed. The fundamental challenge in the development of off-grid solutions is that they are often unable to attract conventional investors and hence, governments need to coordinate with development banks and other sources of financing to secure best available funding for rural electrification programmes.

110. Delegations underscored the importance of the international community in complementing government efforts. It can deliver adequate training and capacity building, share best practices on business models, sustainable financing mechanisms, developing technology solutions that are compatible with local conditions. One delegation shed some light on the lack of scale which hinders private investors from considering off-grid electrification programmes more closely. Another delegation highlighted that a major challenge is in developing and implementing strategies that combine and balance the use of different rural electrification approaches and effectively tap into the potential of community and private sector initiatives.

111. Several delegations noted that IRENA can contribute to the global development agenda and support international efforts to expand universal access to modern energy services, thereby furthering the goals of the Sustainable Energy for All Initiative. Delegations stressed that IRENA could organise its work, in partnership with the donor community, industry and other stakeholders, to serve as a platform to discuss relevant matters and share up to date information to facilitate the development of off-grid renewable energy. Several delegations pointed out that IRENA could analyse best practices from country

experiences to demonstrate the economic viability of off-grid projects as well as showcase innovation in policy, financing and business model, and technology design. One delegation highlighted the importance of developing a database of best practices as a reference point for policy makers and other stakeholders engaged in the field. Several delegations underlined the important role of IRENA in supporting capacity building initiatives and in raising awareness among the private sector on the feasibility of renewable energy projects.

112. The Chair concluded the session by stressing that addressing energy poverty is essential today. In this context, continued efforts are necessary to promote off-grid renewable energy deployment which can expand modern energy services in a cost effective manner in comparison to traditional options. In summarising the session discussion, he stressed that off-grid renewable energy represents a cost-competitive and important solution to expand secure and reliable electricity access. To achieve the necessary scale of deployment, the public and private sector need to work closely to build the right market conditions. IRENA has an important role to play in this dialogue as a source of up-to-date information, lessons learned and best practice examples of diverse approaches available globally. The Chair closed the session by emphasising that a tremendous opportunity lies before us to find a solution to a social problem using renewable energy at affordable prices.

**113. The Assembly took note of the presentation and discussion.**

### **Agenda Item 8: Strategic Discussion on Renewable Energy and Climate Change Mitigation (A/5/DN/3)**

114. The Director-General opened by stating that climate change has a profound impact on the political, economic and social issues that shape global development, and noting that 2014 was one of the hottest years on record. He highlighted that there is increased political momentum to act upon climate change, a convergence of efforts from the public and private sector, with local and national agendas informing the global discourse.

115. The Director-General said that 2015 will be the most important year for climate change since 1992, as global leaders would need to approve a new agreement to accelerate and enhance action on climate change. He pointed to the work IRENA has done in the comprehensive roadmap for renewable energy, REmap 2030, which shows that doubling the share of renewables could help mitigate climate change by significantly reducing global emissions of CO<sub>2</sub>, equivalent to around 21% savings by 2030.

116. He further noted that renewable energy technologies are now readily available and that they have demonstrated substantial performance improvements, becoming more robust and efficient, and increasingly able to generate power even in suboptimal conditions. He went on to state that renewable energy technology prices continue to decline, making them competitive with conventional energy technologies. In addition, he noted that renewables would contribute to creating millions of jobs worldwide, as well as improve air quality and energy security - factors that would contribute to overall economic and social resilience and development.

117. With regard to IRENA's engagement in the climate policy process under the United Nations Framework Convention on Climate Change (UNFCCC), the Director-General said that the time is right to bring the Agency's work on the business case for renewables to the attention of climate change policy-

makers seeking concrete solutions and opportunities to accelerate their efforts. He noted that the climate change process is at an important juncture and that engagement now is mutually beneficial for the renewable energy agenda as well as the climate agenda: not only can IRENA present countries with solutions to address the climate problem, but the momentum provided by the urgent need for climate action can also help promote renewable energy technologies and accelerate their deployment.

118. The Director-General highlighted the initiatives that IRENA announced at the Climate Summit: the Africa Clean Energy Corridor and Small Island Developing States (SIDS) Lighthouse initiatives. He said that both the initiatives present renewable energy as a vehicle to address climate change, while contributing significantly to achieving climate-resilient sustainable development.

119. The Director-General outlined that IRENA would continue its engagement with the climate change issue by:

- making the opportunities and benefits to addressing climate change through renewable energy visible and relevant,
- facilitating tangible and actionable initiatives that will accelerate the deployment of renewable energy technologies, including through the development of new markets, in order to mitigate and reduce greenhouse gas emissions and keep the temperature rise under 2 degrees, and
- leveraging and forming strategic partnerships with a range of public- and private-sector stakeholders and institutions.

120. He underlined that the focus of IRENA's engagement is not to become a part of the negotiating process but to provide knowledge and tools to countries who wish to accelerate the deployment of renewables as part of their national climate strategies. He noted that the Agency is well placed to identify regional and global opportunities, catalyse action and stimulate partnerships.

121. In closing, the Director-General added that in preparation for COP 21, IRENA would work with France and other Members to contribute the Paris 'positive agenda' and is discussing with the French Syndicate of Renewable Energy the possibility of organising an event dedicated to renewable energy and climate in the margins of the Paris conference. He noted that IRENA would aim to showcase actionable opportunities in Paris for renewable energy deployment to enable urgent, immediate and effective action on climate change, while fuelling clean development.

122. Christiana Figueres, the Executive Secretary of the UNFCCC, underscored the urgency of accelerating the deployment of renewables as a solution to climate change. She said even in light of the recent decline in oil prices, there is currently an incredible opportunity to transform energy systems worldwide.

123. The Executive Secretary noted that the move toward renewables is already underway and it is an inevitable development, with or without climate change, given the ongoing trends with declining costs, increased efficiency of the technologies and the increase in investment. She said that more research and development would be needed in storage technologies, as well as further development of how renewables can be used to enhance energy access in rural areas. She said that many countries were already engaging in renewables, basing their motivation on the potential to generate jobs and improve the health of their citizens.

124. She pointed out that reaching 36% renewable energy in the global energy share by 2030 is not only reachable but exceedable, noting that the arguments in support of renewables are compelling even without considering the role it can play in addressing climate change. She said that countries are presently

preparing their intended nationally determined contributions (INDCs) and urged countries to make enhancing renewable energy a very prominent part of the INDCs.

125. Ms. Figueres added that that preparations for Paris were underway and that delegates would soon meet in Geneva to work further on the draft negotiating text, which could be the basis of the agreement in Paris. She noted that over the next 15 years, USD 90 trillion would be invested in infrastructure around the world, mostly in developing countries, and that this would be the case whether or not an accord is reached in Paris. Therefore, she stressed the importance of ensuring that these future investments are directed at climate resilient infrastructure. With regard to declining oil prices, the Executive Secretary said that while this may serve as a disincentive for efficiency, it also offers an opportunity decouple oil and gas, remove subsidies and direct some of the accrued savings to invest in alternative infrastructure for renewables. She concluded by saying that 2015 was an important year not only for climate change but also for sustainable development, and underlined that clean energy was at the heart of both.

126. Rómulo Fernando Acurio Traverso, Deputy Representative on Climate Change of Peru, outlined the outcomes of the 20<sup>th</sup> UNFCCC Conference of the Parties (COP 20), held in Lima in December 2014. He said that the outcome of COP 20, the Lima Call for Climate Action to further the Durban platform, had embodied a spirit of urgency, frankness, and openness. He noted that the Lima conclusions had strengthened the momentum for COP 21 in Paris, with a call for balance in the engagement of countries. He also underscored the importance of the first capitalisation of the Green Climate Fund, which reached USD 10.2 billion in Lima through pledges both from developed and developing countries. He also highlighted other substantial Lima outcomes, including the successful conclusion of the first multilateral assessment process to monitor and verify the emission reductions of 17 developed countries; the launching of the Nazca Climate Action Portal to increase the visibility of climate action by local governments, civil society and the private sector; the organisation of the first day for Reducing Emissions from Deforestation and Degradation in Developing Countries (REDD+ Day) to launch a new global information hub on forests, along with the presentation of reference levels on forests climate management by several countries; the adoption of the first global action plan on gender and climate, the Lima Work Program on Gender; and the approval of the Lima Ministerial Declaration on Education and Awareness-raising on climate change.

127. He recognised the leading role of IRENA in the de-carbonisation of energy to reduce greenhouse gas emissions. He said that through the Steering Committee of the Lima-Paris Action Agenda, Peru intends to support and encourage the cooperative initiatives launched in New York and in Lima, including the two initiatives put forward by IRENA.

128. Ségolène Royale, French Minister in charge of Ecology, Sustainable Development and Energy, noted that France as host of COP 21 would strive to lead by example. She added that she had called upon the French parliament to adopt a law on the new French energy mix that proposes increasing the share of renewables to 32% by 2030, and outlined the efforts that France would be undertaking to accelerate the energy transformation of its energy mix at the local level. She expressed the three reasons that, in her belief, an agreement on climate change is possible: 1) increased awareness among global citizens and governments; 2) the availability of renewable energy technologies that allow governments and societies to act; and 3) the realisation that the sustainable development models designed to provide a solution to the climate change crisis can also provide additional benefits, such as in poverty alleviation.

129. Minister Royale noted that IRENA could contribute through its continued engagement in the technical expert meetings (TEMs) on the pre-2020 objectives, and by facilitating technology transfers to countries that do not yet have access to renewable energy technologies through engagement in the work

of the Climate Technology Center. She also noted that IRENA could strengthen its role with respect to the Green Climate Fund. On the INDCs, she noted that IRENA could provide support to countries that may lack the resources and expertise to set up national contributions. She applauded the initiatives IRENA presented at the Climate Summit and reiterated France's support for these initiatives.

130. Steve Howard, the Director of Sustainability of IKEA, said that IKEA had demonstrated its commitment to renewable energy by installing solar panels on its stores and by operating wind farms, which also was sound long-term business strategy in light of the billions of years of solar and wind reserves. He added that one could either resist, ignore, or embrace change to unlock opportunities, and underlined that renewable energy is a major driver of innovation. He reported that IKEA has started selling solar panels to enable its customers to live more sustainable lives. He also pointed out that falling oil prices offered an opportunity to remove oil subsidies and put carbon pricing in place.

131. In the ensuing discussion, delegations underscored that deployment of renewable energy is key in the global effort to combat climate change, and that it is crucial to consider renewable energy when contemplating national strategies in order to advance the notion of decarbonising while growing the economy. Delegations encouraged IRENA to play an active role in promoting the idea that renewable energy is a crucial part of the climate solution.

132. With regard to the climate change process under the UNFCCC, some delegations supported IRENA's contribution to increasing mitigation ambition by engaging in action-focused processes such as Workstream 2 to promote renewables. Some suggested the Agency should play a role in providing advice to countries as they prepare their INDCs. In this regard, one delegation noted that IRENA could make renewable energy more visible by presenting REmap 2030 in the context of the climate process. For the climate negotiation process to be successful, a few delegations suggested that the REmap 2030 findings would need to be brought to the attention of countries in order to facilitate cross-sectoral dialogue between energy and climate sectors, given the different approaches to the issues of decarbonisation and clean energy.

133. Several delegations stressed that renewable energy should be the main focus for future investments, and called for active engagement with the Green Climate Fund (GCF). In this regard, it was noted that IRENA could have a strong advisory role in the programming of activities for the Fund. They also noted that IRENA could play a role in providing technical assistance in the readiness work by promoting Members' renewable energy projects, potentially using the IRENA/ADFD Project Facility as a model.

134. One delegation suggested that IRENA could host symposia and conferences to convene major stakeholders prior to Paris, and another delegation welcomed a conference on the role of women in renewable energy.

135. In response, the Director-General stated that Members had provided IRENA with a clear perspective on the way forward and of their expectations for the Agency, noting that the international frameworks to accelerate the energy transition are in place.

**136. The Assembly took note of the presentation and discussion.**

**Agenda Item 9: Programmatic Discussion on ‘REsource’ – the Gateway to Renewable Energy Knowledge (A/5/DN/4)**

137. The Director-General introduced the topic by drawing attention to IRENA’s analyses showing that investment levels in renewables are growing, costs are declining, jobs are increasing, new technologies are emerging and positive socio-economic impacts are becoming more apparent. He added that, as of 2013, over 144 countries had set ambitious targets for their renewable future, and that REmap 2030, IRENA’s global roadmap, is laying the groundwork for a doubling of the global share of renewables in the energy mix by 2030. In this context, he pointed out that there are still technical and procedural barriers slowing down the deployment of renewables, preventing investments from reaching the scale required for some targets to be achieved. In this regard, there is a strong need to improve public knowledge and to provide unlimited and effective access to trusted, accurate information on renewable energy.

138. To address this need, the Director-General noted IRENA was tasked by its Members to create a gateway to renewable energy information. Trusted and easily accessible information would help to unleash the true potential of renewables, eventually increasing energy security, bringing positive socio-economic developments and helping protect the climate. This gateway, *REsource*, has been developed over the last four years to make renewables knowledge available in a central location. Such information is designed to reduce the perceived risks of deploying renewable energy, and to give confidence to countries, investors and the general public that more ambitious objectives regarding the use of renewable resources are achievable.

139. The Director-General briefly discussed some elements of *REsource*. *REsource* concentrates all the knowledge collected and compiled by IRENA since its inception in one single access point. It has been designed as an open platform, which can receive information and data from other sources. In the future, *REsource* will integrate additional trusted information sources, and aims to further strengthen the sharing of renewable energy knowledge and information across the international community.

140. With *REsource*, the renewable energy sector is now reaching a level of transparency of information that is common with the conventional energy sector. In the future, *REsource* will continue to grow, and will be a key tool with which IRENA can capture new information and monitor developments in the renewables sector, as well as provide critical, cutting-edge knowledge for policy- and decision-making.

141. A representative of the Secretariat presented *REsource*, noting that it is pushing the boundaries of renewable energy knowledge at a time when renewable energy industry is growing at an exponential rate both globally and locally.

142. He mentioned that in the renewables sector, new leading regions and technologies emerge each year that require innovative approaches to renewable energy information and statistics, to accurately monitor the market almost in real time. He added that renewable energy is not a niche market anymore, but an important dynamic sector.

143. He noted that *REsource* helps bring transparency to the status of renewable energy knowledge and can help identify upcoming challenges. It can provide information on such diverse topics as education, the tracking of bioenergy supply, off-grid applications, and the synergies between end-use sectors and renewable energy supply, among others. He closed by noting that *REsource* would enable IRENA, in partnership with the international community, to enhance the transparency and availability of renewable energy information, and help strengthen and sustain renewable energy deployment.

144. Invited to speak on the matter, Norway, as a main contributor to the initiative, underlined the importance of disseminating renewable energy knowledge broadly. Germany welcomed the initiative led by IRENA and emphasised the need for collaboration amongst international initiatives active in data collection and dissemination. Fiji, as host of the Secretariat for the Pacific Communities (SPC) which is hosting a data centre for the SE4ALL initiative, encouraged IRENA to further strengthen its collaboration with regional and national data repositories. Fiji highlighted the need for islands to access reliable and accurate renewable energy information.

145. Following these interventions, two delegations expressed their support for continued engagement with national experts to strengthen and refine IRENA's knowledge and analysis work. They also highlighted the need to maintain a transparent and open process to continuously update the data on the *REsource* platform.

**146. The Assembly took note of the presentation and discussion.**

#### **Agenda Item 10: Report of the Chair of the Council**

147. The Chair of the Council, Mr. Ramón Mendez of Uruguay, reported on the two meetings of the IRENA Council in 2014, which took place in Abu Dhabi on 2 and 3 June and on 3 and 4 November and referred delegations to the two reports of the meetings, as contained in documents C/7/SR/1 and C/8/SR/1.

148. He stressed that the Council has taken up a range of programmatic, institutional and administrative matters in the course of 2014, providing a solid foundation for the Assembly's deliberations on these issues.

149. He highlighted an important strategic issue that marked the work of the Council in 2014. He recalled that, to facilitate the upcoming discussions on the next biennial work programme and budget and the revision of the Medium-term Strategy, during his tenure as Council Chair he had prioritised the discussion on the future of renewable energy and IRENA's role in this context.

150. He noted that on the day prior to the opening of the eighth Council meeting, the membership was invited to a half-day discussion on the global energy transformation, the increasing relevance of renewable energy and the evolving role of IRENA. He recalled that this discussion had enabled reflection on issues of importance and had set the stage for discussions on the Agency's work in this programmatic cycle and beyond.

151. He drew attention to the key reflections of the meeting, which included the following:

- With IRENA's remarkable progress in the course of the past few years, the Agency is now well-positioned to play a prominent role in the energy transformation that is currently taking place worldwide.
- Delegations discussed the most cost-effective way to support countries and regions in enhancing the share of renewable energy in their energy mix. Many delegations noted the importance of the Agency's work in the upstream, performing analysis and providing objective and timely information, as well as sharing best practices and disseminating success stories, including an analysis of the



reasons for success and/or failure. In addition to these upstream activities, many delegations emphasised the necessity of direct support to Members.

- The importance of renewable energy in the context of climate was emphasised. Climate tools and instruments such as nationally appropriate mitigation actions (NAMAs) and the Green Climate Fund could be utilised to facilitate the activities promoted by IRENA.
- Delegations strongly supported the idea that IRENA should play a leading role in facilitating the energy transformation, with focus on actions that can fill gaps and complement the work of existing initiatives and organisations, maximising synergies and avoiding duplications. In this context, it was emphasised that the Agency should work with all stakeholders including regulators, transmission system operators, and utilities.
- Delegations emphasised the importance of working with other international organisations in the energy sector, not only at the decision-making level but at the technical level. They also suggested that the Agency could consider joint activities with such organisations, where appropriate.
- IRENA should support countries in accessing finance, including by contributing to the development of bankable projects and providing linkages to financing sources.
- Delegations noted that many of the current programmatic activities are effective in supporting countries, and that Members should actively and regularly provide feedback to make sure the Agency remains responsive to their changing needs.

152. He underscored that an overarching consideration that had emerged from the discussion was the need for balance in all aspects, including between ambition and available resources. Members had noted that with growing expectations and growing ambitions, IRENA will need to secure a sustainable balance between core budget and voluntary and other contributions to support programme expansion, as well as delivery.

153. The Council Chair pointed out that the discussions of the Council in 2014 would inform the development and refinement of the next biennial work programme and budget, as well as the upcoming review of the Medium-term Strategy. He reiterated his commitment to encouraging these discussions among Members, and to adding his voice to the conversation that will decide how to best make IRENA's vision a reality.

154. **The Assembly took note of the presentation.**

### **Agenda Item 11: Strategic discussion on financing of the Agency – strategy for the future**

155. The Director-General thanked the Council Chair for his leadership in guiding the strategic discussion on the Agency's future throughout 2014. He referred to his report on Financing of the Agency – Strategy for the Future (A/5/16) which contains the pertinent points emerging from these discussions with Members, as well as some perspectives on the role of the Agency and options for funding opportunities. In this context, he noted that the second year of the biennium would be of great importance in shaping IRENA's future work, including the next biennial Work Programme and Budget for 2016-2017, and in conducting a review of the Medium-term Strategy at the sixth Assembly. He reflected that the current Medium-term Strategy – comprising 3 pillars of knowledge, advisory resource, and cooperation hub – has been an excellent framework to help focus IRENA's programmatic work toward an overarching vision of

becoming the global voice for renewable energy.

156. The Director-General drew attention to the programmatic priority areas included in the report, based on Members' feedback and experience gained in the preceding four years. Members' feedback included the following:

- IRENA's involvement in action on climate change is an important priority, and needs to continue in terms of analytical work, engagement in different global initiatives, and direct support to countries, including in accessing climate finance instruments.
- IRENA's upstream work as a centre of excellence for renewable energy is pivotal to the Agency's ability to influence the transformation of the global energy system and act as an effective advisory resource for its Members.
- Continuous strengthening of the business case for renewables remains a priority.
- The need for risk mitigation instruments and enabling policy frameworks remain vital elements of renewable energy deployment at scale and IRENA should increase its ability to contribute in this context.
- Energy access and rural electrification are key to stimulating economic growth, transforming economies and alleviating poverty and IRENA needs to lead global efforts in deployment renewables through the International Off-grid Renewable Energy Conference (IOREC) and analytical work.
- Initiatives like the Africa Clean Energy Corridor and SIDS Lighthouses are potentially transformational and need to be sustained, to have clear frameworks for implementation, and expanded to other regions and settings.
- Direct engagement with countries through Renewables Readiness Assessments (RRAs), advisory services, and capacity building makes a difference on the ground, and these needs will continue to grow and IRENA will need to continue to develop its capacity and examine ways to meet this expanding demand.
- Leveraging partnerships with other organisations and entities amplifies the impact of the Agency's work and facilitates an optimal allocation of scarce resources.

157. He emphasised that a key objective in considering future funding options must be to secure a sustainable balance between core budget and voluntary and other contributions in a way that the needs for programme expansion and delivery capacity are adequately ensured. He noted that an in-depth review of financial requirements will be undertaken in the process of the development of the work programme, but that it is evident that some limited additional resources will be necessary to strengthen the core functions, in light of growing membership and the demands on the work programme, as well as to increase non-core resources. He also pointed out that UAE bid commitment of USD 5.8 million per annum for research and operations is to officially end in 2015. The unavailability of these funds would have a significant impact on future programming, and he expressed his appreciation to the UAE for having enabled the fast start of the Agency. He noted that voluntary contributions have been received from an increasing number of countries, which strengthen the Agency's ability to expand its programmatic reach.

158. The Director-General acknowledged that a diverse base of non-core resources would require a different approach to programming, and thus welcomed Members' input and guidance. In this context, the Secretariat would invite Members to provide their initial views on the 2016-2017 Work Programme and Budget soon after the Assembly, so that these views can inform the preliminary programmatic framework and related budgetary proposal that will subsequently be prepared for the next meeting of the Council.

Based on the preliminary framework and the outcome of Council's discussions, a draft work programme and budget would be prepared for this year's fall meeting of the Council and finalised for consideration of the Assembly at its sixth session in January 2016. During this process, he stressed, it would be important to clearly identify the areas that would require resource mobilisation, while ensuring that the Agency possesses sufficient core capacity to perform critical programmatic and administrative functions.

159. He closed by underlining that the key to the Agency's long-term success rests in its flexibility and agility, and that these traits must be preserved in the future, underpinned by the strong sense of ownership by its Members.

160. In the discussion that followed, delegations agreed that sustainable financing of the Agency requires a balance between core budget and voluntary contributions, and takes into account the financial constraints that Members are facing. Some delegations underscored the importance of transparency of the terms and conditions for obtaining capital and flexibility in future financing, which would allow for more funding options, and promote growth while maintaining the neutrality of the Agency. A delegation emphasised the importance of this strategic discussion, especially in light of the challenges posed by climate change and the need for renewable energy markets to expand in order to face these challenges.

161. One delegation noted that in an environment of constrained financing, the work programme should focus on IRENA's comparative advantage, with emphasis on tangible outcomes. This delegation thanked the Agency for the REmap country reports, and also encouraged the completion of these reports for other countries prior to COP 21. This delegation noted that it looks forward to the second edition of *REthinking Energy* prior to COP 21, and requested additional information about IRENA's evolving role as the renewable energy hub in the SE4ALL Initiative, noting its support for efforts to assist vulnerable countries such as through the SIDS Lighthouses Initiative. This delegation also stressed that regional clean energy corridors enhance energy security and synergies, and asked for additional information on IRENA's efforts in Latin America and the Caribbean. To guide the formulation of the Agency's next work programme and budget, this delegation suggested that the focus include energy access, trade, and renewable energy finance mechanisms in the context of climate change mitigation.

162. Another delegation emphasised the importance of continuing to examine future funding of the Agency, in 2016 and beyond. The delegation also encouraged the Secretariat to review the Medium-term Strategy in light of changes in the renewable energy landscape and to inform Members about focus areas for the next biennium, which could assist in the identification of opportunities for specific contributions. Some delegations expressed support for the idea of discussing priorities for the next work programme, especially to consider specific synergies and added value that IRENA can provide in certain areas. One of these delegations suggested that IRENA could package projects so as to better attract funding, and could reinforce its supportive capacity to countries. Another delegation noted that IRENA could draw lessons from the international investment community regarding financing mechanisms.

163. One delegation pointed out that additional performance standards in budget reporting would assist in assessing the impact and results of IRENA's work, and thus the added value of a particular activity. The delegation added that a more direct linkage of budgetary information to programmatic activities currently being implemented as well as new initiatives to be launched would help countries align needed funds with national objectives and identify opportunities for additional contributions.

164. Some delegations also emphasised that, despite financial constraints that Members are facing, continued growth in IRENA's budget is important in order to build on previous achievements and continue to have an impact on the energy transformation at a global level, and because of increases in

membership and expectations. These delegations encouraged creative thinking about how to accomplish this, noting that increases should include core budget and options from other sources, with alternative means through which Members may contribute.

165. In response, the Director-General thanked delegations for affirming that the Agency is headed in the right direction, especially considering that the renewable energy field is fast-moving and evolving. He underscored that IRENA is trying to become and remain a new type of institution for the future. He noted that the Agency has thus far tried to be as responsive as possible to the needs of Members, which has helped to achieve the desired results with limited resources. The Director-General took note of the comments that had been shared, and also highlighted the need to balance the expanding list of requests for growth in the work programme and the concurrent message that IRENA needs to focus. He closed by emphasising the need to continue to consult regarding the future financing of the Agency, so that there is clarity and transparency about the budget to which Members will be asked to contribute, and agreed with the comment about the importance of rethinking modalities of financing.

**166. The Assembly took note of the presentation and discussion.**

#### **Agenda Item 12: IRENA/ADFD Project Facility (A/5/17)**

167. The Director-General introduced the topic by noting that improving access to finance is key to increasing the share of renewables in the energy mix. He underlined that the joint Project Facility of IRENA and the Abu Dhabi Fund for Development (ADFD) is helping to meet this challenge in the developing world. He reported that USD 57 million in loans have been allocated to five projects in developing countries in the second funding cycle of the IRENA/ADFD Project Facility (“the Facility”), leveraging an additional USD 83 million dollars from other sources.

168. The Director-General thanked H.E. Minister Ilona Antoniszyn-Klik of Poland for her leadership as Chair of the Advisory Committee during the second funding cycle. He acknowledged the members of the Advisory Committee: Argentina, Fiji, Japan, Poland, Saint Vincent and the Grenadines, Sierra Leone and Sudan; and alternates Benin, France, India, the Republic of Korea and South Africa, as well as the Panel of Experts, for their dedicated efforts to ensure the success of the second cycle of the Facility. He announced that lessons from the second cycle will inform the operation of the third cycle, which was opened on 18 November 2014, with a deadline of 18 February 2015 to receive summary project proposals.

169. The Director-General welcomed ADFD’s move to offer lower lending rates to support developing countries further. He thanked ADFD for working closely with IRENA in the first and second cycles.

170. The Director-General informed the Assembly that Egypt, France, Kuwait, New Zealand, the Republic of Korea, Swaziland and Trinidad and Tobago have expressed interest to serve as members on the Advisory Committee in the third cycle. He further informed Members that Argentina, Jordan, Mauritania, Pakistan and Portugal volunteered to act as alternates.

171. He noted that over USD 1.5 billion in loans were requested in the first and second cycles of the Facility, which he identified as clear evidence of a high demand for concessional finance for renewable energy, and of the need to scale up the level of financing. He concluded that the focus of the Facility

moving forward will continue to be in selecting models for replication and in supporting the scale up of renewable energy finance.

172. The Advisory Committee Chair, summarising the Report on the Second Project Cycle (A/5/17), reported on the work of the Committee, including the facilitation of a transparent selection process, providing guidance on the type of projects recommended to ADFD for final selection, and identifying areas of improvement of the Facility. She noted that the Committee convened in February and June 2014 to address operational and procedural points and areas of improvement and that in October 2014, the Secretariat made a presentation to the Advisory Committee on the project results feedback framework which has now been integrated into the third cycle.

173. The Chair of the Advisory Committee then presented the selected projects to the Assembly through a short video. The selected projects include: a hydro project that would pump irrigation water and supply drinking water for a rural community in Argentina; a solar energy project aiming to create jobs and improve the environment in Cuba; a geothermal project supplying electricity and thermal energy for rural areas in Iran; a hybrid project with wind, solar and hydro that will bring energy to rural villages in Mauritania; and a geothermal project that will provide a consistent power source for Saint Vincent and the Grenadines. She closed by emphasising that the projects selected constitute a major contribution to accelerating the transition to renewable energies, and their implementation will have impacts well beyond the individual project.

174. A representative of ADFD offered his appreciation to IRENA, the participants in the second funding cycle, the Advisory Committee members and the Panel of Experts for their work in the second cycle. He explained that USD 98 million has been allocated in the first and second cycles to eleven projects in total, and that the balance of USD 2 million will be made available in the third cycle. He announced the new rates for ADFD funding as 1% and 2% with a five-year grace period and 20-year loan duration to be applied to all cycles (including retroactively for the first and second cycles), which would help to further support projects in developing countries. He concluded by emphasising ADFD's commitment to continued work with IRENA to ensure projects contribute to sustainable economic development.

175. During interventions from the five selected project representatives, the Minister from Saint Vincent and the Grenadines expressed enthusiasm for the implementation of the transformative geothermal project. He highlighted the positive impacts of this project on the country's energy mix and energy security, as well as the resulting cost savings on electricity. He concluded that the project would be instrumental for poverty alleviation, business development, and to achieving the country's target of 100% renewable energy. The Minister from Mauritania stressed the importance of utilising the country's vast wind and solar resources to improve lives, and announced additional projects currently under development. The Minister of Iran highlighted the positive impacts of the project and the importance of establishing cooperation with international experts and the ADFD for the development of similar projects around the world. The representative of Argentina explained that its hydropower project would have positive socio-economic impacts, including job creation, improved irrigation and the provision of drinking water for the community. He highlighted that the support from ADFD will positively impact the region's future projects in wind, solar and hydro. The representative of Cuba stressed the importance of its project in achieving Cuba's goal of a 24% share of renewable energy in the total energy mix by 2030, which will allow for better energy security and clean development. She highlighted financing project development was a main challenge for Cuba and stressed the significance of the ADFD loan towards improving the conditions for future financing.

**176. The Assembly took note of the Report of the Chair of the Advisory Committee on the second project cycle (A/5/17) and appointed Egypt, France, Kuwait, New Zealand, Republic of Korea, Swaziland, and Trinidad and Tobago as members of the Advisory Committee for the third funding cycle, with Argentina, Jordan, Mauritania, Pakistan and Portugal as alternates.**

### **Agenda Item 13: Report from the Ministerial Roundtables**

#### **Report from the Ministerial Roundtable: Power sector transformation**

177. H.E. Rainer Baake, State Secretary at the Federal Ministry for Economic Affairs and Energy of Germany, reported on the key points emerging from the Ministerial Roundtable on power sector transformation, in which grid managers and operators shared their experiences in integrating variable renewables in grids. He reported that an important message from their perspective was that most countries can meet their current renewable energy targets without major technical or operational challenges for their power grid infrastructure. Participants also agreed that assessment of the grid is a critical first step in the transition towards a renewable-based power sector. The experts also noted that, in a second step, the upgrading and optimising of grids should be done in parallel with increasing the share of renewables, rather than waiting for infrastructural bottlenecks to become an obstacle.

178. He noted that experiences in some countries with already-higher shares of variable renewables show that even 80% of wind or solar power during peak hours can be managed in a reliable manner. It was emphasised that flexibility is key to increasing the share of renewables, which becomes particularly important once a level of about 20% renewables has been reached, and includes flexibility on the supply and demand side, and through grid expansion.

179. Ministers shared their own experiences and challenges in this respect. Mr. Baake pointed out that while each country had its own circumstances and unique challenges and solutions, there were a few common themes.

- Renewables are cost competitive today, and continuous innovation is needed to facilitate their integration at the necessary scale.
- Importance of integration at all levels was stressed, and many mentioned the role of regional and inter-regional interconnectors to facilitate market integration.
- There are many examples of success, and best practice should be analysed in more detail.
- Continued support for research and demonstration of smart grid and battery storage technologies is needed, as well as training and education of grid operators and local utilities.
- To make renewables a dominant source, there is a need to look for system solutions, with the optimal use of available and emerging technologies, including storage solutions.
- The main challenges are the necessary political and institutional decisions to take.

180. Mr. Baake concluded by noting that the Ministers in attendance had made a number of specific recommendations for IRENA's future work, in particular:

- To analyse in more detail the legal, technological and management aspects as well as the regulatory and market aspects of grid integration with a high share of renewables.
- To convene experts and policy makers around specific policy, operational and technology

issues to facilitate exchange of experience and sharing of best practice.

### **Report from the Ministerial Roundtable: The role of renewable energy in energy security**

181. H.E. Amos Hochstein, Special Envoy and Coordinator for International Energy Affairs the United States Department of State, reported on the discussion at the Ministerial Roundtable on renewable energy and energy security. He reported that participants had acknowledged energy security as a priority for governments today, and that Ministers had shared their experiences in addressing the challenges of securing energy supplies and infrastructure, as well as the importance of diversifying the national energy mix. Ministers had also highlighted the positive contribution of renewables to improving energy security. It was noted that the issue of energy security should not be limited to the national sphere but span regional and global policy.

182. Mr. Hochstein also highlighted that renewable energy technologies had been identified as an integral part of the solution to addressing growing energy needs, reducing environmental and societal costs of fossil fuel consumption, mitigating climate change costs and, ultimately, creating a secure, long-term and sustainable energy future. It was also underlined that renewables are key in the global energy mix, particularly for long-term strategies in which renewables can play a decisive role.

183. It was noted that, as the costs of renewables fall and their business case improves, public support policies should be adjusted to reflect these positive developments and further encourage private investment, as part of the long-term strategy to ensure renewables' contribution to energy security. Participants also noted that governments need to develop an enabling environment that encourages private sector investment, which is central to the issue of energy security, and enables market forces.

184. He added that Ministers at the roundtable had shared their own experiences and challenges, and some of the key point were as follows:

- Energy security is an issue of concern for both consuming and producing countries alike.
- The diversification of the national energy mix and supply routes is crucial to achieving energy security and ensure a sustainable energy future through long-term strategies.
- International cooperation can facilitate greater efficiency in finding technology and market solutions to the integration of greater shares of renewable energy technologies into existing systems.
- Countries can increase their energy security by looking past regional borders and cooperating regionally and globally.
- There is no one-size-fits-all solution or policy recommendation. Local assessments and support is required to maximise domestic resources and create an energy system resilient to external shocks.

185. Mr Hochstein concluded by listing a number of specific recommendations for IRENA's future work including:

- To analyse current systems to see how renewable energy can contribute to greater energy security and how to increase the share of renewable energy in markets.
- To help strengthen local and regional network between countries, including by using its convening power to facilitate dialogue and exchange of experience
- To provide capacity building and technical assistance to promote the integration of renewable

energy technologies.

- To cooperate closely with relevant institutions in the field.

**186. The Assembly took note of the reports from the Ministerial Roundtables.**

#### **Agenda Item 14: Arrangements for the sixth session of the Assembly**

187. Egypt expressed its willingness to be President of the sixth session of the Assembly, to be represented by the Minister of Electricity and Renewable Energy.

**188. The Assembly designated Egypt as President of the sixth session of the Assembly, and Bangladesh, Cuba, Mauritius and Sweden as Vice-Presidents.**

**189. The Assembly decided to hold its sixth session on 16 and 17 January 2016 in Abu Dhabi, United Arab Emirates.**

#### **Agenda Item 15: Any other business**

190. There was no intervention under this item.

#### **Agenda Item 16: Assembly conclusions and closing of the meeting**

191. The President thanked all delegations for a productive meeting and for their commitment to addressing and resolving all outstanding issues. He noted that the conversation over the two days of the Assembly demonstrated the vision and ownership of all Members in the Agency and showed support for IRENA's ongoing work. He also noted that participants had shared examples of success from all over the world, which underscored the growing importance of renewable energy and of IRENA's work. He congratulated the Director-General on his re-appointment, thanked the members of the Council who served during 2014, and expressed appreciation to all present for their contributions to the discussion. The President declared the fifth session of the Assembly of IRENA closed.



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Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

17 January 2015

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## **Agenda of the fifth session of the Assembly**

### **17 January 2015**

#### **09.00am – 01.00pm**

1. Opening of the meeting
2. Organisation of work
  - a. Election of officials
  - b. Adoption of the agenda
  - c. Appointment of a Credentials Committee
  - d. Participation of observers
3. Annual report of the Director-General

#### **02.30pm – 03.30pm**

4. Appointment of the Director-General

**03.30pm – 06.00pm, Ministerial Roundtable ‘Power Sector Transformation’**  
parallel afternoon session

#### **03.30pm – 06.00pm**

Continuation of interventions as necessary

5. Programmatic discussion: Renewable power generation costs

**18 January 2015**

**09.00am – 11.30am, Ministerial Roundtable ‘The Role of Renewable Energy in Energy Security’**  
parallel morning session

**09.00am – 11.30am**

6. Institutional matters
  - a) Report of the Credentials Committee
  - b) Council election
  - c) Rules of Procedure for subsidiary organs of the Council
  - d) Staff Provident Fund of IRENA
  - e) Staff Regulations and Rules
  - f) Secondment and related matters
  - g) Administration of justice
  - h) Report of the Ethics Officer
  - i) Audited Financial Statements for 2013 and status of the implementation of audit recommendations
  - j) Indicative IRENA scale of contributions for 2015
7. Programmatic discussion: Off-grid renewable energy deployment

**11.30am – 01.00pm**

8. Strategic discussion: Renewable energy and climate change

**02.30pm – 06.00pm**

9. Programmatic discussion: ‘REsource’ - the gateway to renewable energy knowledge
10. Report of the Chair of the Council
11. Strategic discussion: Financing of the Agency – strategy for the future
12. IRENA/ADFD Project Facility
13. Report from the Ministerial Roundtables
14. Arrangements for the sixth session of the Assembly
15. Any other business
16. Assembly conclusions and closing of the meeting

Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

11 May 2015

**List of participants**

| No. | Country             | Name                         | Institution  | Position/Title                                   |
|-----|---------------------|------------------------------|--|--|
| 1.  | Albania             | Nuri Domi                    | Diplomatic Mission in UAE  | Chargé d' Affaires                               |
| 2.  | Algeria             | Ferhat Ramadan               | Diplomatic Mission in UAE  | Minister Plenipotentiary                         |
| 3.  |                     | Embarek Abdelkader El-Mekki  | Ministry of Energy and Mining                                    | General Director                                 |
| 4.  |                     | Ferhat Ramadane              | Diplomatic Mission in UAE  | Minister Plenipotentiary                         |
| 5.  |                     | Said Guezzane                | Centre for Research and Development of Electricity and Gas       | Chief Executive Officer                          |
| 6.  | Angola              | José Andrade De Lemos        | Diplomatic Mission in UAE  | Ambassador                                       |
| 7.  |                     | Alfredo Pires                |  | Official   |
| 8.  |                     | Ania Fanana                  | Diplomatic Mission in UAE  | Third Secretary                                  |
| 9.  |                     | Coutinho Viquissi Copumi     | Diplomatic Mission in UAE  | Counsellor                                       |
| 10. |                     | Dionai Felix Lobato Pires    | Diplomatic Mission in UAE  | Attaché  |
| 11. |                     | Dionil Afonso Muhongo        | Ministry of Energy and Water                                     | Advisor  |
| 12. |                     | Maria Graciete Cardoso Pitra | Ministry of Energy and Water                                     | Head of Department                               |
| 13. |                     | Tuwyra Alicia Vaz Pitta Gros | Ministry of External Relations                                   | Advisor  |
| 14. | Antigua and Barbuda | Conrod Hunte                 | Antigua and Barbuda Mission to the United Nations                | Ambassador and Permanent Representative to IRENA |
| 15. |                     | Brian Donald Challenger      | Ministry of Tourism, Economic Development, Investment and Energy | Ambassador                                       |
| 16. | Argentina           | Rubén Eduardo Caro           | Diplomatic Mission in UAE  | Ambassador                                       |
| 17. |                     | Alfredo Morelli              | Ministry of Foreign Affairs                                      | Ambassador                                       |
| 18. |                     | Azul Ximena Molina           | Diplomatic Mission in UAE  | Counsellor                                       |

| No. | Country    | Name                               | Institution  | Position/Title          |
|-----|------------|------------------------------------|--|-------------------------|
| 19. | Armenia    | Hayk Harutyunyan                   | Ministry of Energy and Natural Resources                 | Deputy Minister         |
| 20. |            | Tigran Melkonyan                   | Ministry of Energy and Natural Resources                 | Director                |
| 21. | Australia  | Pablo Chiho Kang                   | Diplomatic Mission in UAE                                | Ambassador              |
| 22. |            | Elizabeth Le Bas                   | Diplomatic Mission in UAE                                | Third Secretary         |
| 23. |            | Kim Debenham                       | Diplomatic Mission in UAE                                | Deputy Head of Mission  |
| 24. | Azerbaijan | Akim Badal Badalov                 | State Agency on Alternative and Renewable Energy Sources | Chairman                |
| 25. |            | Elkhan Gahraman                    | Diplomatic Mission in UAE                                | Ambassador              |
| 26. |            | Elshan Abdulazimov                 | Diplomatic Mission in UAE                                | Second Secretary        |
| 27. |            | Jamil Ahmad Melikov                | State Agency on Alternative and Renewable Energy Sources | Deputy Chairman         |
| 28. |            | Khagan Aydin Teymurov              | State Agency on Alternative and Renewable Energy Sources | Advisor to Chairman     |
| 29. |            | Rajab Mammadov                     | State Agency on Alternative and Renewable Energy Sources | Director                |
| 30. | Bahamas    | Kenred M.A. Dorsett                | Ministry of the Environment and Housing                  | Minister                |
| 31. |            | Rhianna Neely                      | Ministry of the Environment and Housing                  | Environmental Scientist |
| 32. | Bahrain    | Abdulhussain Bin Ali Mirza         | Ministry of Energy                                       | Minister                |
| 33. |            | Abdul Majid Babeeb Abdulkarim      | Ministry of Energy                                       | Advisor                 |
| 34. |            | Ahmed Bucheery                     | Ministry of Energy                                       | Director                |
| 35. |            | Jassin Issa Al Sheerawi            | Ministry of Energy                                       | Director                |
| 36. |            | Mohammed bin Hamad Saqr Al Moawada | Diplomatic Mission in UAE                                | Ambassador              |
| 37. |            | Naser Ahmed Al Rowaihi             | Ministry of Energy                                       | Advisor                 |
| 38. |            | Nawaf Bin Ebrahim Al Khalifa       | Ministry of Energy                                       | Chief Executive         |
| 39. | Bangladesh | Siddique Zobair                    | Ministry of Power, Energy, and Mineral Resources         | Joint Secretary         |
| 40. |            | Mohammad Alauddin                  | Ministry of Power, Energy and Mineral Resources          | Deputy Secretary        |
| 41. |            | Mohammed Shahadat Hussain          | Diplomatic Mission in UAE                                | Counsellor              |
| 42. |            | Muhammad Imran                     | Diplomatic Mission in UAE                                | Ambassador              |
| 43. |            | Shafique Uddin                     | Bangladesh Power Development Board                       | Director                |

| No. | Country  | Name                               | Institution  | Position/Title                                   |
|-----|----------|------------------------------------|--|--|
| 44. | Barbados | Jehu Jerome Wiltshire              | Division of Energy and Telecommunications, Prime Minister's Office     | Permanent Secretary                              |
| 45. |          | William Hinds                      | Ministry of Energy and Environment, Government of Barbados             | Head of Unit                                     |
| 46. | Belarus  | Sergei Semashko                    | State Committee for Standardization                                    | Vice-Chairman                                    |
| 47. |          | Andrei Miniankou                   | State Committee for Standardization                                    | Head of Department                               |
| 48. |          | Iryna Osipava                      | State Committee for Standardization                                    | Chief Specialist                                 |
| 49. |          | Nikita Khatenvich                  | Diplomatic Mission in UAE  | Chief of Protocol                                |
| 50. |          | Roman Golovchenko                  | Diplomatic Mission in UAE  | Ambassador                                       |
| 51. |          | Sergei Belogortsev                 | Diplomatic Mission in UAE  | Counsellor                                       |
| 52. | Belgium  | Dominique Mineur                   | Diplomatic Mission in UAE  | Ambassador and Permanent Representative to IRENA |
| 53. |          | Allal Mesrar                       | Ministry of Energy, Environment and Sustainable Development            | Counsellor                                       |
| 54. |          | Carole Pisula                      | Ministry of Local Government, Housing, Energy and City, Walloon region | Attaché  |
| 55. |          | Cédric Brüll                       | Cluster TWEED  | Managing Director                                |
| 56. |          | Els Van de Velde                   | Ministry of Environment, Nature and Energy                             | Attaché  |
| 57. |          | François Cornille                  | Bruxelles Environnement (IBGE), [Brussels Environment]                 | Attaché  |
| 58. |          | Julien Christian Marie de Fraipont | Diplomatic Mission in UAE  | Official   |
| 59. |          | Julien Donfut                      | Ministry of Local Government, Housing, Energy and City, Walloon region | Advisor  |
| 60. |          | Marco Aliboni                      | Ministry of Local Government, Housing, Energy and City, Walloon region | Deputy Chief of Staff                            |
| 61. |          | Marie Schippers                    | Ministry of Local Government, Housing, Energy and City, Walloon region | Attaché  |
| 62. |          | Quirina Huet                       | Ministry of Environment and Energy, Flemish region                     | Attaché  |
| 63. |          | Veronique Siklosi                  | Diplomatic Mission in UAE  | Consul   |

| No. | Country                | Name                         | Institution  | Position/Title           |
|-----|------------------------|------------------------------|--|--------------------------|
| 64. | Benin                  | Clement Bill Akouedenoudje   | Ministry of Energy and Water                               | Director                 |
| 65. |                        | Afiavi Houngbédji Fernande   | Ministry of Foreign Affairs                                | Director                 |
| 66. |                        | Issa Moussa Toure            | Diplomatic Mission in UAE                                  | Ambassador               |
| 67. |                        | Julien Fatoumbi              | Diplomatic Mission in UAE                                  | Head of Chancery         |
| 68. |                        | Karim Moubachir Mamah Djiman | Diplomatic Mission in UAE                                  | Head of Consular Section |
| 69. | Bosnia and Herzegovina | Aleksandar Dragicevic        | Diplomatic Mission in UAE                                  | Ambassador               |
| 70. | Brunei Darussalam      | Noraini Binti Haji Abd Karim | Diplomatic Mission in UAE                                  | Minister Counsellor      |
| 71. |                        | Soekarddy Hj Abdullahsani    | Diplomatic Mission in UAE                                  | First Secretary          |
| 72. | Burkina Faso           | Boubacar Ba                  | Ministry of Mines and Energy                               | Minister                 |
| 73. |                        | Rimnogdo Narcisse Sawadogo   | Ministry of Mines and Energy                               | Director General         |
| 74. | Cabo Verde             | Leonesa Fortes               | Ministry of Tourism, Investment & Enterprise Development   | Minister                 |
| 75. |                        | Carlos Fernandes Semedo      | Ministry of Foreign Affairs                                | Director General         |
| 76. |                        | Daniel Novo Santos           | Ministry of the Economy, Growth and Competitiveness        | Engineer                 |
| 77. |                        | Pedro Alcantara Silva        | Ministry of Tourism, Investment and Enterprise Development | Coordinator              |
| 78. | Cameroon               | Iya Tidjani                  | Diplomatic Mission in Saudi Arabia                         | Ambassador               |
| 79. |                        | Adama Saidou                 | Ministry of Environment                                    | Director                 |
| 80. | China                  | Liu Qi                       | National Energy Administration                             | Vice Minister            |
| 81. |                        | Chi Fung Wang                | China Energy Technology Holdings Limited                   | Chairman                 |
| 82. |                        | Dan Geng                     | Climate Parliament   | Director                 |
| 83. |                        | Dan Liu                      | East Environment Energy Technology Corporation             | Executive Director       |
| 84. |                        | Deming Yu                    | State Grid Corporation of China                            | Director                 |
| 85. |                        | Dongming Ren                 | China National Renewable Energy Centre                     | Director                 |
| 86. |                        | Fenglian Zhu                 | National Energy Administration                             | Official                 |
| 87. |                        | Hongbin Gu                   | China Renewable Energy Engineering Institute               | Vice President           |
| 88. |                        | Jian Sheng                   | State Grid Corporation of China                            | Deputy Director          |
| 89. |                        | Jianqing Deng                | East Environment Energy Technology Corporation             | Chairman                 |
| 90. |                        | Jin Bo                       | Diplomatic Mission in the UAE                              | Official                 |

| No.  | Country | Name                     | Institution  | Position/Title                                   |
|------|---------|--------------------------|--|--|
| 91.  |         | Jingying Huo             | China Renewable Energy Engineering Institute           | Senior Engineer                                  |
| 92.  |         | Junxuan Yu               | Ming Yang Wind Power Company                           | General Manager                                  |
| 93.  |         | Lifang Ma                | Chinese Renewable Energy Industries Association        | Project Manager                                  |
| 94.  |         | Lijuan FAN               | Beijing Jike New Energy Technology Development Company | Head of Department                               |
| 95.  |         | Liyang Zhang             | State Grid Corporation of China                        | Vice President                                   |
| 96.  |         | Longxing Huang           | Changzhou Trina Solar Energy Company                   | Vice President                                   |
| 97.  |         | Miao Zhang               | Chinese Renewable Energy Industries Association        | Project Manager                                  |
| 98.  |         | Qihua Wang               | China Energy Technology Holdings Limited               | Associate Engineer                               |
| 99.  |         | Runqing Hu               | China National Renewable Energy Centre                 | Researcher                                       |
| 100. |         | Shi Lishan               | National Energy Administration                         | Deputy Director                                  |
| 101. |         | Wei Li                   | Hong Kong Golden Concord Holdings Limited              | Vice President                                   |
| 102. |         | Wenqian Megan Tang       | Chinese Renewable Energy Industries Association        | Executive Vice Secretary-General                 |
| 103. |         | Xing Zhang               | National Energy Administration                         | Official   |
| 104. |         | Xiufen Dong              | National Energy Administration                         | Head of Division                                 |
| 105. |         | Yanzhong Li              | National Energy Administration                         | Official   |
| 106. |         | Yi Zheng                 | Yingli Group   | Director   |
| 107. |         | Yu Yang                  | State Grid Corporation of China                        | Project Manager                                  |
| 108. |         | Zhongying Wang           | National Development and Reform Commission             | Deputy Director General                          |
| 109. | Cuba    | Tatiana Amarán Bogachova | Ministry of Basic Industry                             | Director   |
| 110. |         | Argelia Balboa Monzón    | Ministry of Energy and Mines                           | Official   |
| 111. | Cyprus  | Stelios Himonas          | Ministry of Commerce, Industry and Tourism             | Permanent Secretary                              |
| 112. |         | Elpidoforos A. Economou  | Diplomatic Mission in UAE                              | Ambassador and Permanent Representative to IRENA |
| 113. |         | George Partasides        | Ministry of Commerce, Industry and Tourism             | Energy Officer                                   |
| 114. |         | Georgina Lahdo           | Ministry of Commerce, Industry and Tourism             | Energy Officer                                   |
| 115. |         | Paraskevi Neophytou      | Ministry of Foreign Affairs                            | Attaché  |

| No.  | Country            | Name                            | Institution                                  | Position/Title                                   |
|------|--------------------|---------------------------------|--|--|
| 116. | Czech Republic     | Alexandr Sporys                 | Diplomatic Mission in UAE                    | Ambassador                                       |
| 117. |                    | Peter Vlk                       | Diplomatic Mission in UAE                    | Counsellor                                       |
| 118. | Denmark            | Christian Pilgaard Zinglersen   | Ministry of Climate, Energy and Building     | Head of Department                               |
| 119. |                    | Christian Baungaard Christensen | Diplomatic Mission in UAE                    | Analyst  |
| 120. |                    | Kim Moller Porst                | Ministry of Climate, Energy and Building     | Special Advisor                                  |
| 121. |                    | Poul Hoiness                    | Diplomatic Mission in UAE                    | Ambassador and Permanent Representative to IRENA |
| 122. |                    | Rasmus Abildgaard Kristensen    | Ministry of Climate, Energy and Building     | Head of Department                               |
| 123. |                    | Therese Kofoed Jensen           | Danish Energy Agency                         | Advisor  |
| 124. | Djibouti           | Aboubaker Houssein Doualeh      | Ministry of Energy and Natural Resources     | Permanent Secretary                              |
| 125. |                    | Osman Moussa Darar              | Diplomatic Mission in UAE                    | Ambassador and Permanent Representative to IRENA |
| 126. |                    | Saida Omar Abdillahi            | Ministry of Energy and Natural Resources     | Director of Energy Efficiency                    |
| 127. | Dominican Republic | Clara Martínez Thedy            | Diplomatic Mission in UAE                    | Ambassador                                       |
| 128. |                    | Amer El Kadi                    | Diplomatic Mission in UAE                    | Consular Assistant                               |
| 129. |                    | Eduardo Morales Cintron         | Diplomatic Mission in UAE                    | Counsellor                                       |
| 130. |                    | Julián Despradel                | Ministry of Energy and Mines                 | Technical Coordinator                            |
| 131. |                    | Miguel Llenas                   | Diplomatic Mission in UAE                    | Attaché  |
| 132. | Ecuador            | Kabalan Bahij Abisaab Neme      | Diplomatic Mission in Qatar                  | Ambassador and Permanent Representative to IRENA |
| 133. | Egypt              | Mohamed Shaker Elmarkabi        | Ministry of Electricity and Renewable Energy | Minister   |
| 134. |                    | Amr El Rachidi                  | Diplomatic Mission in UAE                    | First Secretary                                  |
| 135. |                    | Ehab Emam Hamouda               | Diplomatic Mission in UAE                    | Ambassador and Permanent Representative to IRENA |
| 136. |                    | Magdy Rady                      | Ministry of Foreign Affairs                  | Assistant Minister                               |



| No.  | Country        | Name                   | Institution                              | Position/Title                                   |
|------|----------------|------------------------|--|--|
| 137. |                | Rasha Ahmed Hassan     | New and Renewable Energy Authority       | Official   |
| 138. | Eritrea        | Tesfay Kidane Zekarias | Ministry of Energy and Mines             | Director General                                 |
| 139. |                | Aiamin Nafe Yousif     | Diplomatic Mission in UAE                | First Secretary                                  |
| 140. |                | Beyene Haile           | Ministry of Energy and Mines             | Director   |
| 141. |                | Osman Mohamed Omar     | Diplomatic Mission in UAE                | Ambassador                                       |
| 142. | Ethiopia       | Abdulkadir Risku Salih | Diplomatic Mission in UAE                | Ambassador and Permanent Representative to IRENA |
| 143. |                | Abraha Misghina Abraha | Ministry of Water Irrigation and Energy  | Program Coordinator                              |
| 144. |                | Girma Dinka Risa       | Diplomatic Mission in UAE                | Second Secretary                                 |
| 145. | European Union | Miguel Arias Cañete    | European Commission                      | EU Commissioner                                  |
| 146. |                | Alexandra Sombsthay    | European Commission                      | Policy Officer                                   |
| 147. |                | Anna Andreasson        | European Commission                      | Attaché  |
| 148. |                | Axel Nevens            | European Commission                      | Advisor  |
| 149. |                | Bensarsa Faouzi        | European Commission                      | Special Envoy                                    |
| 150. |                | Carlo De Filippi       | European Union Delegation to the UAE     | Ambassador                                       |
| 151. |                | Dominique Ristori      | European Commission                      | Director-General                                 |
| 152. |                | Issac Valero-Ladron    | European Commission                      | Advisor  |
| 153. |                | Paula Abreu Marques    | European Commission                      | Head of Unit                                     |
| 154. | Fiji           | Col Pio Tikoduadua     | Ministry of Infrastructure and Transport | Minister   |
| 155. |                | Aliki Salusalu         | Diplomatic Mission in UAE                | Counsellor                                       |
| 156. |                | Emosi Rakai            | Diplomatic Mission in UAE                | First Secretary                                  |
| 157. |                | Lui Tusiga Naisara     | Ministry of Infrastructure and Transport | Deputy Secretary                                 |
| 158. |                | Paula Katirewa         | Ministry of Infrastructure and Transport | Director   |
| 159. |                | Peceli Nakavulevu      | Ministry of Infrastructure and Transport | Director   |
| 160. |                | Ravindran Robin Nair   | Diplomatic Mission in UAE                | Ambassador and Permanent Representative to IRENA |
| 161. |                | Sarika Lata            | Diplomatic Mission in UAE                | Second Secretary                                 |
| 162. | Finland        | Päivi Janka            | Ministry of Employment and the Economy   | Deputy Director General                          |
| 163. |                | Eveliina Saarinen      | Diplomatic Mission in UAE                | Deputy Head of Mission                           |

| No.  | Country | Name                   | Institution  | Position/Title                                   |
|------|---------|------------------------|--|--|
| 164. |         | Ilkka-Pekka Similä     | Diplomatic Mission in UAE  | Ambassador                                       |
| 165. | France  | Ségolène Marie Royal   | Ministry of Ecology, Sustainable Development and Energy              | Minister   |
| 166. |         | Ahmad Cheikh-Ali       | French Nuclear Safety Authority                                      | Coordinator                                      |
| 167. |         | Antoine Pellion        | Ministry of Ecology, Sustainable Development and Energy              | Advisor  |
| 168. |         | Clémence Barret        | Diplomatic Mission in UAE  | Chargé d'Affaires                                |
| 169. |         | Elois Divol            | Ministry of Ecology, Sustainable Development and Energy              | Chargé d'Affaires                                |
| 170. |         | Jacques Barberye       | Ministry of Ecology, Sustainable Development and Energy              | Deputy Chief of Staff                            |
| 171. |         | Jean Lohest            | Ministry of Foreign Affairs  | Head of Department                               |
| 172. |         | Laurence Breton-Moyet  | Agence Française de Développement (AFD), [French Development Agency] | Director   |
| 173. |         | Mario Pain             | Ministry of Ecology, Sustainable Development and Energy              | Advisor  |
| 174. |         | Martine Kubler Mamlouk | Diplomatic Mission in UAE  | Deputy Permanent Representative to IRENA         |
| 175. |         | Maryline Simoné        | Ministry of Ecology, Sustainable Development and Energy              | Official   |
| 176. |         | Michel Miraillet       | Diplomatic Mission in UAE  | Ambassador and Permanent Representative to IRENA |
| 177. |         | Philippe Geiger        | Ministry of Ecology, Sustainable Development and Energy              | Deputy Director                                  |
| 178. |         | Rémy Lauranson         | Ministry of Ecology, Sustainable Development and Energy              | Official   |
| 179. |         | Sébastien Lime         | Ministry of Ecology, Sustainable Development and Energy              | Official   |
| 180. |         | Stéphane Crouzat       | Ministry of Ecology, Sustainable Development and Energy              | Official   |
| 181. |         | Stéphane Tromilin      | Agence Française de Développement (AFD), [French Development Agency] | Project Manager                                  |
| 182. |         | Stephen Marchisio      | Ministry of Foreign Affairs  | Head of Department                               |
| 183. |         | Sylvie Lemmet          | Ministry of Ecology, Sustainable Development and Energy              | Director   |
| 184. | Gambia  | Saja Edward Sanneh     | Ministry of Energy   | Minister   |
| 185. |         | Kemo Kending Ceesay    | Ministry of Energy   | Director   |

| No.  | Country | Name                   | Institution  | Position/Title                                   |
|------|---------|------------------------|--|--|
| 186. |         | Momodou Omar Njie      | Ministry of Energy   | Permanent Secretary                              |
| 187. | Germany | Rainer Baake           | Federal Ministry for Economic Affairs and Energy                                       | State Secretary                                  |
| 188. |         | Alexander Haack        | German International Cooperation (GIZ)   | Advisor  |
| 189. |         | Angelique Bachour      | Diplomatic Mission in UAE  | Assistant  |
| 190. |         | Dania Katharina Röpke  | Federal Ministry for Economic Affairs and Energy                                       | Secretary  |
| 191. |         | Daniel Argyropoulos    | Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety | Policy Advisor                                   |
| 192. |         | Eckhard Lübke          | Diplomatic Mission in UAE  | Ambassador and Permanent Representative to IRENA |
| 193. |         | Ellen Von Zitzewitz    | Ministry for Economic Affairs and Energy   | Deputy Head of Division                          |
| 194. |         | Ernst Peter Fischer    | Ministry of Foreign Affairs  | Deputy Director General                          |
| 195. |         | Jens Drillisch         | Kreditanstalt für Wiederaufbau (KfW)   | Head of Department                               |
| 196. |         | Johannes Uhl           | Ministry of Foreign Affairs  | Policy Officer                                   |
| 197. |         | Joscha Rosenbusch      | German International Cooperation (GIZ)   | Consultant                                       |
| 198. |         | Karsten Sach           | Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety | Deputy Director General                          |
| 199. |         | Kerstin Faehrmann      | Ministry for Economic Cooperation and Development                                      | Head of Division                                 |
| 200. |         | Kirstin Bergmann       | Diplomatic Mission in UAE  | Economic and Political Affairs Officer           |
| 201. |         | Martin Schoepe         | Federal Ministry for Economic Affairs and Energy                                       | Head of Division                                 |
| 202. |         | Philipp Wittrock       | German International Cooperation (GIZ)   | Advisor  |
| 203. |         | Ralf Christmann        | Federal Ministry for Economic Affairs and Energy                                       | Deputy Head of Division                          |
| 204. |         | Tania Roediger-Vorwerk | Federal Ministry for Economic Cooperation and Development                              | Deputy Director General                          |
| 205. |         | Torsten Herdan         | Federal Ministry for Economic Affairs and Energy                                       | Director General                                 |

| No.  | Country | Name                           | Institution                                      | Position/Title                                   |
|------|---------|--------------------------------|--|--|
| 206. | Ghana   | Emmanuel Armah Kofi Buah       | Ministry of Energy and Petroleum                 | Minister   |
| 207. |         | Akpene Yawa Dzadzra            | Ministry of Energy and Petroleum                 | Administrator                                    |
| 208. |         | Alfred Kwabena Oforu Ahenkorah | Energy Commission                                | Official   |
| 209. |         | Gifty Delali Tettey            | Ministry of Energy and Petroleum                 | Deputy Director                                  |
| 210. |         | John Abdulai Jinapor           | Ministry of Energy and Petroleum                 | Deputy Minister                                  |
| 211. |         | Michael Bukari Adabsone Opam   | Energy Commission                                | Director   |
| 212. |         | Solomon Asoalla                | Ministry of Energy and Petroleum                 | Director   |
| 213. |         | Thomas Mba Akabzaa             | Ministry of Energy and Petroleum                 | Chief Director                                   |
| 214. |         | Wisdom Ahiataku-Togobo         | Ministry of Energy and Petroleum                 | Director   |
| 215. | Greece  | Dionyssios Zois                | Diplomatic Mission in UAE                        | Ambassador and Permanent Representative to IRENA |
| 216. |         | Stephanos Ioannides            | Diplomatic Mission in UAE                        | First Secretary                                  |
| 217. | Grenada | Clarice Modeste-Curwen         | Ministry of Foreign Affairs                      | Minister   |
| 218. |         | Angus Friday                   | Diplomatic Mission in USA                        | Ambassador                                       |
| 219. |         | Clifton Clayton Fitzroy Burgin | Ministry of Health, Wellness and the Environment | Minister   |
| 220. | Hungary | Attila Tóth                    | Diplomatic Mission in UAE                        | Deputy Head of Mission                           |
| 221. | Iceland | Benedikt Höskuldsson           | Ministry of Foreign Affairs                      | Director   |
| 222. | India   | Upendra Tripathy               | Ministry of New and Renewable Energy             | Secretary General                                |
| 223. |         | Dilip Kumar Khare              | Ministry of New and Renewable Energy             | Official   |
| 224. |         | Gopal Wadhwa                   | Diplomatic Mission in UAE                        | Attaché  |
| 225. |         | Mohammed Shahid Alam           | Diplomatic Mission in UAE                        | Second Secretary                                 |
| 226. |         | Neeta Bhushan                  | Diplomatic Mission in UAE                        | Deputy Chief of Mission                          |
| 227. |         | Santosh Kumar                  | Diplomatic Mission in UAE                        | Attaché  |
| 228. |         | Soumen Bagchi                  | Ministry of External Affairs                     | Joint Secretary                                  |
| 229. |         | Tarun Kapoor                   | Ministry of New and Renewable Energy             | Joint Secretary                                  |

| No.  | Country                       | Name                                   | Institution                                 | Position/Title  |
|------|-------------------------------|--|---|---|
| 230. |                               | Thettalil Parameswaran<br>P. Seetharam | Diplomatic Mission in UAE                   | Ambassador and<br>Permanent<br>Representative to<br>IRENA |
| 231. |                               | Vijay Krishnamoorthy                   | Ministry of External Affairs                | Director  |
| 232. | Indonesia                     | Dadan Kusdiana                         | Ministry of Energy and Mineral<br>Resources | Director  |
| 233. |                               | Mohamad Ali Sungkar                    | Ministry of Foreign Affairs                 | Policy Officer  |
| 234. |                               | Muhammad Amin Bn.<br>Appa              | Diplomatic Mission in UAE                   | Official  |
| 235. |                               | Putri Faruk                            | Diplomatic Mission in UAE                   | Third Secretary   |
| 236. |                               | Slamet Noegroho                        | Diplomatic Mission in UAE                   | Counsellor  |
| 237. |                               | Toferry Soetikno                       | Ministry of Foreign Affairs                 | Director  |
| 238. |                               | Wisnu Suryo Hutomo                     | Diplomatic Mission in UAE                   | Ambassador  |
| 239. | Iran (Islamic<br>Republic of) | Houshang Falahatian                    | Ministry of Energy                          | Deputy Minister   |
| 240. |                               | Ali Azizialavijeh                      | Renewable Energy Organization<br>of Iran    | Advisor   |
| 241. |                               | Fareeh Bahrami                         | Renewable Energy Organization<br>of Iran    | Advisor   |
| 242. |                               | Jalil<br>Jafarybonehkhalkhal           | Ministry of Energy                          | Member of<br>Parliament                                   |
| 243. |                               | Majid Dashtestani                      | Diplomatic Mission in UAE                   | Third Counsellor  |
| 244. |                               | Majid Soleymani                        | Diplomatic Mission in UAE                   | Official  |
| 245. |                               | Mohamed Reza Fayyaz                    | Diplomatic Mission in UAE                   | Ambassador and<br>Permanent<br>Representative to<br>IRENA |
| 246. |                               | Neda Bagheri                           | Renewable Energy Organization<br>of Iran    | Advisor   |
| 247. |                               | Seyed Mohammad Reza<br>Saeidi Niyasar  | Renewable Energy Organization<br>of Iran    | Expert  |
| 248. |                               | Seyyed Mehdi Mousavi<br>Nejad          | Ministry of Energy                          | Member of<br>Parliament                                   |
| 249. |                               | Shahram Pishkari                       | Renewable Energy Organization<br>of Iran    | Expert  |
| 250. |                               | Shariar Jalaee                         | Ministry of Energy                          | Deputy Director   |
| 251. |                               | Yousef Armoodeli                       | Renewable Energy Organization<br>of Iran    | Chairman  |
| 252. | Iraq                          | Mowafak Mahdi<br>Abboud                | Diplomatic Mission in UAE                   | Ambassador and<br>Permanent<br>Representative to<br>IRENA |

| No.  | Country | Name                         | Institution   | Position/Title                                   |
|------|---------|------------------------------|---|--|
| 253. |         | Dhia Jalil Baiee             | Ministry of Science and Technology                                    | Deputy Director General                          |
| 254. |         | Kamal Hussein Kamal H. Latif | Ministry of Energy  | Director General                                 |
| 255. |         | Rabab Ali Al-Shouk           | Diplomatic Mission in UAE   | Attaché  |
| 256. | Israel  | Ron Adam                     | Ministry of Foreign Affairs   | Permanent Representative to IRENA                |
| 257. |         | Haim Regev                   | Ministry of Foreign Affairs   | Director   |
| 258. | Italy   | Claudio De Vincenti          | Ministry of Economic Development                                      | Vice Minister                                    |
| 259. |         | Alessandro Rizzo             | Ministry of Foreign Affairs and International Cooperation             | Official   |
| 260. |         |                              |   |  |
| 261. |         | Bruno Antonio Pasquino       | Ministry of Foreign Affairs and International Cooperation             | Counsellor                                       |
| 262. |         | Caterina Gigliuto            | Diplomatic Mission in UAE   | Second Secretary                                 |
| 263. |         | Estella Pancaldi             | Gestore dei Servizi Energetici (GSE), [Management of Energy Services] | Senior Advisor                                   |
| 264. |         | Giorgio Starace              | Diplomatic Mission in UAE   | Ambassador and Permanent Representative to IRENA |
| 265. |         | Marco Marsilli               | Ministry of Foreign Affairs and International Cooperation             | Deputy Director                                  |
| 266. |         | Maria Chiara Bernardi        | Gestore dei Servizi Energetici (GSE), [Management of Energy Services] | Official   |
| 267. |         | Matteo Romitelli             | Ministry of Foreign Affairs and International Cooperation             | Counsellor                                       |
| 268. |         | Riccardo Toxiri              | Ministry of Economic Development                                      | Advisor  |
| 269. | Japan   | Yoichi Miyazawa              | Ministry of Economy, Trade, and Industry                              | Minister   |
| 270. |         | Ayako Kageyama               | Deloitte Tohmatsu Consulting Co., Ltd                                 | Senior Consultant                                |
| 271. |         | Daisuke Inaba                | Ministry of Economy, Trade and Industry                               | Assistant Director                               |
| 272. |         | Eisaku Toda                  | Institute for Global Environmental Strategies                         | Principal Researcher                             |
| 273. |         | Eri Senaga                   | Ministry of Economy, Trade and Industry                               | Assistant Director                               |
| 274. |         | Erika Iwasaki                | Diplomatic Mission in UAE   | Third Secretary                                  |

| No.  | Country | Name                   | Institution                                     | Position/Title            |
|------|---------|------------------------|---|---------------------------|
| 275. |         | Hideo Suzuki           | Ministry of Economy, Trade and Industry         | Director-General          |
| 276. |         | Hideyuki Urata         | Ministry of Economy, Trade and Industry         | Director                  |
| 277. |         | Hiroaki Ando           | Diplomatic Mission in UAE                       | Third Secretary           |
| 278. |         | Hirobumi Kayama        | Agency for Natural Resources and Energy         | Director                  |
| 279. |         | Hisanaga Kawamura      | Ministry of Economy, Trade and Industry         | Director                  |
| 280. |         | Hitomi Yata            | Ministry of Economy, Trade and Industry         | Official                  |
| 281. |         | Jiro Kida              | Ministry of Economy, Trade and Industry         | Official                  |
| 282. |         | Kaoru Suzuki           | Japan International Cooperation Agency          | Senior Advisor            |
| 283. |         | Kaoru Yamaguchi        | Institute of Energy Economics                   | Senior Researcher         |
| 284. |         | Kazuto Nakamura        | Ministry of Economy, Trade and Industry         | Assistant Director        |
| 285. |         | Keiichi Sugita         | Ministry of Agriculture, Forestry and Fisheries | Official                  |
| 286. |         | Keiko Segawa           | Ministry of the Environment                     | Director                  |
| 287. |         | Kenichiro Matsubayashi | Ministry of Foreign Affairs                     | Director                  |
| 288. |         | Kenichiro Urakami      | Ministry of Economy, Trade and Industry         | Official                  |
| 289. |         | Kenji Hirata           | Diplomatic Mission in UAE                       | Deputy Head of Mission    |
| 290. |         | Kenji Kato             | Ministry of Economy, Trade and Industry         | Deputy Director           |
| 291. |         | Koji Yamada            | Ministry of the Environment                     | Deputy Director           |
| 292. |         | Mamoru Minami          | Diplomatic Mission in UAE                       | Head of Department        |
| 293. |         | Masahiro Nagira        | Ministry of Foreign Affairs                     | Official                  |
| 294. |         | Masashi Watanabe       | Ministry of Economy, Trade and Industry         | Deputy Director           |
| 295. |         | Masayuki Dewaki        | Ministry of Economy, Trade and Industry         | Senior Assistant Director |
| 296. |         | Masayuki Uesugi        | Ministry of Economy, Trade and Industry         | Assistant to the Minister |
| 297. |         | Mizuho Komatsu         | Diplomatic Mission in UAE                       | Administrative Officer    |
| 298. |         | Naoyuki Kaneko         | Diplomatic Mission in UAE                       | First Secretary           |
| 299. |         | Nobuhisa Edamura       | Ministry of Economy, Trade and Industry         | Deputy Director           |

| No.  | Country | Name                | Institution                             | Position/Title                                   |
|------|---------|---------------------|---|--|
| 300. |         | Nozomi Suzuki       | Ministry of Economy, Trade and Industry | Assistant Director                               |
| 301. |         | Ryo Minami          | Ministry of Economy, Trade and Industry | Director   |
| 302. |         | Sadanori Ito        | Ministry of Economy, Trade and Industry | Executive Assistant                              |
| 303. |         | Shigeaki Ishida     | Ministry of Economy, Trade and Industry | Assistant Director                               |
| 304. |         | Goshiro Yamaguchi   | Ministry of Economy, Trade and Industry | Assistant Director                               |
| 305. |         | Shingo Sotsuka      | Diplomatic Mission in UAE               | Second Secretary                                 |
| 306. |         | Shinichi Kihara     | Ministry of Economy, Trade and Industry | Official   |
| 307. |         | Shota Inoue         | Diplomatic Mission                      | Counsellor                                       |
| 308. |         | Takatsune Ito       | Ministry of Economy, Trade and Industry | Deputy Director                                  |
| 309. |         | Hirobumi Kayama     | Ministry of Economy, Trade and Industry | Director   |
| 310. |         | Takehito Seif Inoue | Diplomatic Mission in UAE               | First Secretary                                  |
| 311. |         | Takuya Maeba        | Diplomatic Mission in UAE               | Second Secretary                                 |
| 312. |         | Tetsuji Tomita      | Institute of Energy Economics           | Senior Researcher                                |
| 313. |         | Tomoko Sawada       | Ministry of Economy, Trade and Industry | Official   |
| 314. |         | Tomoko Yokouchi     | Diplomatic Mission in UAE               | Researcher / Adviser                             |
| 315. |         | Tomoyoshi Hisamori  | Ministry of Economy, Trade and Industry | Official   |
| 316. |         | Toshiaki Yoshimura  | Diplomatic Mission in UAE               | Second Secretary                                 |
| 317. |         | Toshiyuki Shirai    | Ministry of Economy, Trade and Industry | Deputy Director                                  |
| 318. |         | Tsuyoshi Tanaka     | Diplomatic Mission in UAE               | Second Secretary                                 |
| 319. |         | Wataru Ishikawa     | Ministry of Foreign Affairs             | Executive Assistant                              |
| 320. |         | Wataru Nogaki       | Diplomatic Mission in UAE               | First Secretary                                  |
| 321. |         | Yasuhide Nakayama   | Ministry of Foreign Affairs             | State Minister                                   |
| 322. |         |                     |   |  |
| 323. |         | Yasunari Hattori    | Ministry of the Environment             | Officer  |
| 324. |         | Yoshihiko Kamo      | Diplomatic Mission in UAE               | Ambassador and Permanent Representative to IRENA |
| 325. |         | Yoshitaka Hidaka    | Ministry of Economy, Trade and Industry | Deputy Director                                  |



| No.  | Country    | Name                           | Institution  | Position/Title                                   |
|------|------------|--------------------------------|--|--|
| 326. |            | Yuka Kakazu                    | Ministry of Economy, Trade and Industry                            | Assistant Director                               |
| 327. | Jordan     | Ghaleb Maabreh                 | Ministry of Energy and Mineral Resources                           | Secretary General                                |
| 328. |            | Dana Khalil Souber             | Diplomatic Mission in UAE  | Third Secretary                                  |
| 329. |            | Naif Fantoul Al Zaidan         | Diplomatic Mission in UAE  | Ambassador and Permanent Representative to IRENA |
| 330. |            | Ziad Jebri Sabra               | Ministry of Energy and Mineral Resources                           | Director   |
| 331. | Kazakhstan | Vladimir Sergeyevich Shkolnik  | Ministry of Energy   | Minister   |
| 332. |            | Ainur Sospanova                | Diplomatic Mission in UAE  | Director   |
| 333. |            | Almat Abzhanov                 | Diplomatic Mission in UAE  | First Secretary                                  |
| 334. |            | Akzan Shiranov                 | Ministry of Energy   | Advisor  |
| 335. |            | Asset Maratovich Magauov       | Kazakhstan Association of Oil/Gas and Energy Sector Organizations  | Director   |
| 336. |            | Almat Abzhanov                 | Diplomatic Mission in UAE  | First Secretary                                  |
| 337. |            | Baurzhan Umirzakov             | Kazakhstan Association of Oil, Gas and Energy Sector Organizations | Senior Manager                                   |
| 338. |            | Ibrahim Aushev                 | Diplomatic Mission in UAE  | Attaché  |
| 339. |            | Jambulat Sarsenov              | Kazakhstan Association of Oil, Gas and Energy Sector Organizations | Deputy Chairman                                  |
| 340. |            | Kairat Lama Sharif             | Diplomatic Mission in UAE  | Ambassador and Permanent Representative to IRENA |
| 341. |            | Kamal Nazir                    | Diplomatic Mission in UAE  | Second Secretary                                 |
| 342. |            | Madiyar Menilbekov             | Diplomatic Mission in UAE  | Official   |
| 343. |            | Murat Ratovich Karimsakov      | Eurasian Economic Club of Scientists Association                   | President  |
| 344. |            | Nuraly Sultanovich Bekturganov | National Scientific Technological Holding                          | Advisor  |
| 345. |            | Nurlan Kapparov                | National Atomic Company, Kazatomprom JSC                           | Chairman   |
| 346. |            | Raigul Bulekbayeva             | Ministry of Energy   | Chief Expert                                     |
| 347. |            | Ramazan Zhampiissov            | Kazakhstan Association of Oil, Gas and Energy Sector Organizations | Chief Executive                                  |
| 348. |            | Sairan Baizhakanov             | Kazakhstan National Company  | General Manager                                  |

| No.  | Country  | Name                              | Institution  | Position/Title         |
|------|----------|-----------------------------------|--|------------------------|
| 349. |          | Samal Samarkanovna Saibulatova    | National Scientific Technological Holding                          | Manager                |
| 350. |          | Serekbol Zharylgapovich Tokmoldin | Institute of Physics and Technology                                | Director               |
| 351. |          | Talgat Karashev                   | Kazakhstan Association of Oil, Gas and Energy Sector Organizations | Head of the Department |
| 352. |          | Yerbolat Zharkynbaiuly            | Diplomatic Mission in UAE  | First Secretary        |
| 353. |          | Yershat Taibakov                  | Diplomatic Mission in UAE  | First Secretary        |
| 354. |          | Yerzhan Kalekenov                 | Diplomatic Mission in UAE  | Counsellor             |
| 355. | Kenya    | Davis Chirchir                    | Ministry of Energy and Petroleum                                   | Cabinet Secretary      |
| 356. |          | Isaac Kiva                        | Ministry of Energy and Petroleum                                   | Director               |
| 357. |          | Jacqueline Rono                   | Ministry of Energy and Petroleum                                   | Official               |
| 358. |          | Mohamed A. Gello                  | Diplomatic Mission in UAE  | Ambassador             |
| 359. |          | Paul Mbuti                        | Ministry of Energy and Petroleum                                   | Official               |
| 360. |          | Sailewu Enoch                     | Diplomatic Mission in UAE  | Official               |
| 361. |          | Samson Koech                      | Diplomatic Mission in UAE  | Official               |
| 362. | Kiribati | Waysang Kum Kee                   | Ministry of Public Works and Utilities                             | Minister               |
| 363. |          | Ioataake Timeon                   | Ministry of Public Works and Utilities                             | Permanent Secretary    |
| 364. |          | Kireua Bureimoa                   | Ministry of Public Works and Utilities                             | Director               |
| 365. | Kuwait   | Salem F. Alhajraf                 | Kuwait Institute for Scientific Research                           | Executive Director     |
| 366. |          | Abdulaziz Alebraheem              |  | Official               |
| 367. |          | Abdullah Alharbi                  |  | Official               |
| 368. |          | Adel Alathayna                    |  | Official               |
| 369. |          | Ayman Al Qattan                   | Kuwait Institute for Scientific Research                           | Program Manager        |
| 370. |          | Eyad Alfalah                      |  | Official               |
| 371. |          | Hassan Qasem                      | Kuwait Institute for Scientific Research                           | Research Scientist     |
| 372. |          | Mohammad Alothainah               |  | Official               |
| 373. |          | Osamah Alsayegh                   | Kuwait Institute for Scientific Research                           | Director               |
| 374. |          | Saad Salem Al Jandal              | Kuwait Institute for Scientific Research                           | Research Scientist     |

| No.  | Country    | Name                              | Institution   | Position/Title                          |
|------|------------|-----------------------------------|---|---|
| 375. |            | Saad Al Thaher                    |   | Official                                |
| 376. | Latvia     | Dana Reizniece-Ozola              | Ministry of Economics                                   | Minister                                |
| 377. |            | Aija Timofejeva                   | Ministry of Economics                                   | Director                                |
| 378. |            | Jurijs Spiridonovs                | Ministry of Economics                                   | Deputy State Secretary                  |
| 379. | Lesotho    | Itumeleng Moerane Nchaka          | Ministry of Foreign Affairs and International Relations | First Secretary                         |
| 380. |            | Keketso Adel Jobo                 | Department of Energy                                    | Economic Planner                        |
| 381. | Lithuania  | Aušra Semaškienė                  | Ministry of Foreign Affairs                             | Ambassador                              |
| 382. | Luxembourg | Nicole Bintner-Bakshian           | Diplomatic Mission in UAE                               | Ambassador                              |
| 383. |            | Hawa Zainab Sesay                 | Diplomatic Mission in UAE                               | Political and Executive Affairs Officer |
| 384. |            | Hendrik Hebel                     | Diplomatic Mission in UAE                               | Official                                |
| 385. |            | Marc Scheer                       | Diplomatic Mission in UAE                               | Chargé d'Affaires                       |
| 386. | Macedonia  | Sasho Tashevski                   | Diplomatic Mission in UAE                               | Ambassador                              |
| 387. | Malaysia   | Maximus Johnity Ongkili           | Ministry of Energy, Green Technology and Water          | Minister                                |
| 388. |            | Afaf Che Hilyati Che Hassan Pahmi | Sustainable Energy Development Authority                | Head of Special Unit                    |
| 389. |            | Catherine Ridu                    | Sustainable Energy Development Authority                | Chief Executive Officer                 |
| 390. |            | Dato Ahmad Anwar bin Adnan        | Diplomatic Mission in UAE                               | Ambassador                              |
| 391. |            | Datuk Loo Took Gee                | Ministry of Energy, Green Technology and Water          | Secretary General                       |
| 392. |            | Jane Ritikos                      | Ministry of Energy, Green Technology and Water          | Press Secretary                         |
| 393. |            | Jaya Singam Rajoo                 | Ministry of Energy, Green Technology and Water          | Undersecretary                          |
| 394. |            | Lim Shean Pin                     | Ministry of Energy, Green Technology and Water          | Official                                |
| 395. |            | Mazita Marzuki                    | Diplomatic Mission in UAE                               | Counsellor                              |
| 396. |            | Nurhafiza Mohamed Hasan           | Energy Commission                                       | Head of Licensing                       |
| 397. | Maldives   | Thoriq Ibrahim                    | Ministry of Environment and Energy                      | Minister                                |
| 398. |            | Abdul Matheen Mohamed             | Ministry of Environment and Energy                      | Minister of State                       |
| 399. |            | Ahmed Ali                         | Ministry of Environment and Energy                      | Director General                        |
| 400. |            | Aishath Inaya                     | Ministry of Environment and Energy                      | Executive Coordinator                   |

| No.  | Country          | Name                            | Institution   | Position/Title          |
|------|------------------|---------------------------------|---|-------------------------|
| 401. |                  | Musab Abdulla                   | Diplomatic Mission in UAE   | Counsellor              |
| 402. | Mali             | Mamadou Frankaly Keïta          | Ministry of Energy and Hydraulic Resources  | Minister                |
| 403. |                  | Abdoulaye Idrissa Maïga         | Ministry of Environment, Water and Sanitation   | Minister                |
| 404. |                  | Boubacar Kane                   | Ministry of Environment, Water and Sanitation   | Chief Executive Officer |
| 405. |                  | Famakan Kamissoko               | National Energy Directorate   | Head of Section         |
| 406. |                  | Hamata Ag Hantafaye             | Agence Nationale de Développement des Biocarburants (ANADEB), [National Agency for Development of Biofuels] | Director                |
| 407. |                  | Hussein Alfa Nafu               | Ministry of Environment, Water and Sanitation   | Expert                  |
| 408. |                  | Mohammed Mahmoud Ben Labat      | Diplomatic Mission in Saudi Arabia  | Ambassador              |
| 409. |                  | Moussa Aliou Koné               | Diplomatic Mission in Saudi Arabia  | Advisor                 |
| 410. |                  | Moussa Ombotimbe                | National Energy Directorate   | Director                |
| 411. |                  | Sékou Oumar Traoré              | National Energy Directorate   | Director                |
| 412. | Marshall Islands | Tony de Brum                    | Ministry of Foreign Affairs   | Minister                |
| 413. |                  | Doreen deBrum                   | Ministry of Foreign Affairs   | Assistant Secretary     |
| 414. |                  | Walter Myazoe                   | Ministry of Resources and Development   | Assistant Planner       |
| 415. | Mauritania       | Mohamed Mekiyine                | Ministry of Energy, Petroleum, and Mines  | Minister                |
| 416. |                  | Amal Maouloud                   | Mauritanian Electricity Company (SOMELEC)   | Project Manager         |
| 417. |                  | Cheikh El Moctar Limam Ahmed    | Ministry of Energy, Petroleum and Mines   | Director                |
| 418. |                  | Dah Sidi Bouna                  | Ministry of Energy, Petroleum and Mines   | Director                |
| 419. |                  | Essalem Mohamed Emohamed        |   | Official                |
| 420. |                  | Mamadou Amadou Kane             | Société de Production d'Electricité au Gaz (SPEG), [Electricity and Gas Company]                            | Director General        |
| 421. |                  | Mohamed Salem Ahmed Brahim Vall | Mauritanian Electricity Company (SOMELEC)   | Deputy Director General |

| No.  | Country                         | Name                                 | Institution  | Position/Title                  |
|------|---------------------------------|--------------------------------------|--|---------------------------------|
| 422. |                                 | Sidi Mohamed Maadh                   | Promotion de l'Accès Universel aux Services de Base [Promoting Universal Access to Basic Services] | General Manager                 |
| 423. | Mauritius                       | Ivan Leslie Collendavelloo           | Ministry of Energy and Public Utilities  | Vice-Prime Minister             |
| 424. |                                 | Nirmala Devi Nababsing               | Ministry of Energy and Public Utilities  | Senior Chief Executive          |
| 425. | Mexico                          | Francisco Leonardo Beltrán Rodríguez | Ministry of Energy   | Undersecretary                  |
| 426. |                                 | Alejandro Amerena-Carswell           | Ministry of Energy   | Assistant Secretary             |
| 427. |                                 | Arturo Rueda                         | Diplomatic Mission in UAE  | Official                        |
| 428. |                                 | César Contreras-Guzmán               | Ministry of Energy   | Chief of Staff                  |
| 429. |                                 | Margott Galván                       | Ministry of Energy   | Director                        |
| 430. |                                 | Oscar Humberto Rodríguez García      | Diplomatic Mission in UAE  | Attaché                         |
| 431. |                                 | Pedro Blanco Pérez                   | Diplomatic Mission in UAE  | Deputy Head of Mission          |
| 432. | Micronesia, Federated States of | Jeem Lippwe                          | FSM Mission to the United Nations  | Deputy Permanent Representative |
| 433. |                                 | Hubert K. Yamada                     | National Government of the FSM   | Assistant Secretary             |
| 434. | Monaco                          | Chhayavuth Kheng                     | Ministry of Public Works, the Environment and Urban Development                                    | Head of Unit                    |
| 435. | Mongolia                        | Myagmar Angarag                      | Ministry of Energy   | Director                        |
| 436. |                                 | Enkhtuul Sharavdemberel              | Ministry of Energy   | Engineer                        |
| 437. |                                 | Nyamdavaa Odvog                      |  | Director                        |
| 438. |                                 | Oyun Sanjaasuren                     | Parliament of Mongolia   | Member of Parliament            |
| 439. |                                 | Tovuudorj Purevjav                   | Ministry of Energy   | Director-General                |
| 440. | Montenegro                      | Darko Uskoković                      | Diplomatic Mission in UAE  | Ambassador                      |
| 441. |                                 | Periša Kastratović                   | Diplomatic Mission in UAE  | Second Secretary                |
| 442. | Mozambique                      | Telma Matavel                        | Ministry of Energy   | Head of Department              |
| 443. |                                 | Cátia Isaura Antonio Manjate         | Ministry of Energy   | Engineer                        |
| 444. |                                 | Miquelina Menezes Julien             | National Energy Fund   | Chief Executive Officer         |
| 445. |                                 | Riduan Ismael Adamo                  | Diplomatic Mission in UAE  | Counsellor                      |

| No.  | Country                           | Name                            | Institution   | Position/Title            |
|------|-----------------------------------|---------------------------------|---|---------------------------|
| 446. | Namibia                           | Isak Henry Katali               | Ministry of Mines and Energy                        | Minister                  |
| 447. |                                   | Elijah Chizamusoka<br>Sichone   | Regional Electricity Regulators<br>Association      | Executive<br>Secretary    |
| 448. |                                   | Francois Robinson               | Electricity Control Board                           | Manager                   |
| 449. |                                   | Helvi Ileka                     | Polytechnic of Namibia                              | Project Officer           |
| 450. |                                   | Justine Hauala                  | Ministry of Mines and Energy                        | Official                  |
| 451. |                                   | Margaret Mutschler              | NamPower  | Official                  |
| 452. |                                   | Nico Snyders                    | Ministry of Mines and Energy                        | Chief Researcher          |
| 453. |                                   | Rojas Manyame                   | Electricity Control Board                           | General Manager           |
| 454. |                                   | Zivayi Chiguvare                | Polytechnic of Namibia                              | Director                  |
| 455. | Nauru                             | Baron Divavesi Waqa             | Government of the Republic of<br>Nauru              | President                 |
| 456. |                                   | Aaron Stein Cook                | Department of Commerce,<br>Industry and Environment | Minister                  |
| 457. |                                   | David Jace Canon                | Government of the Republic of<br>Nauru              | Official                  |
| 458. |                                   | Elkoga Gadabu                   | Department of Commerce,<br>Industry and Environment | Secretary                 |
| 459. |                                   | Michael Aroi                    | Department of Foreign Affairs<br>and Trade          | Secretary                 |
| 460. |                                   | Peter Jacob                     | Government of the Republic of<br>Nauru              | Advisor                   |
| 461. | Netherlands,<br>Kingdom of<br>the | Jennes de Mol                   | Diplomatic Mission in UAE                           | Ambassador                |
| 462. |                                   | Lucille Merks                   | Diplomatic Mission in UAE                           | Counsellor                |
| 463. | New Zealand                       | Murray McCully                  | Ministry of Foreign Affairs and<br>Trade            | Minister                  |
| 464. |                                   | James Munro                     | Diplomatic Mission in UAE                           | Deputy Head of<br>Mission |
| 465. |                                   | Jeremy Clarke-Watson            | Diplomatic Mission in UAE                           | Ambassador                |
| 466. |                                   | Mike Allen                      | Ministry of Foreign Affairs and<br>Trade            | Special Envoy             |
| 467. |                                   | Rafiq Aqaileh                   | Diplomatic Mission in UAE                           | Official                  |
| 468. |                                   | Saleem Al Tamari                | Diplomatic Mission in UAE                           | Policy Advisor            |
| 469. |                                   | Stuart Calman                   | Ministry of Foreign Affairs and<br>Trade            | Deputy Director           |
| 470. | Nicaragua                         | Donald Enrique<br>Espinosa      | Ministry of Energy and Mines                        | Secretary-General         |
| 471. |                                   | Julio Pérez Aguilar             | Ministry of Energy and Mines                        | Director                  |
| 472. |                                   | Luis Nicolás Molina<br>Barahona | Ministry of Energy and Mines                        | Director                  |

| No.  | Country | Name                     | Institution  | Position/Title      |
|------|---------|--------------------------|--|---------------------|
| 473. |         | Roy Eduardo Mejia Lanza  | Ministry of Energy and Mines   | Advisor             |
| 474. |         | Yanin Maria Morales Chow | Ministry of Energy and Mines   | Analyst             |
| 475. | Niger   | Foumakoye Gado           | Ministry of Energy and Petroleum   | Minister            |
| 476. |         | Alhassane Halid          | Société Nigérienne d'Electricité (NIGELEC), [Nigerian Electricity Society] | Director General    |
| 477. |         | Bello Nassourou          | Ministry of Energy and Petroleum   | Director General    |
| 478. |         | Maidagi Issa             | Ministry of Energy and Petroleum   | Director General    |
| 479. |         | Saleye Yahaya            | National Centre for Solar Energy   | Director General    |
| 480. |         | Salouhou Hamidine        | National Agency for the Promotion of Rural Electrification                 | Director General    |
| 481. | Nigeria | Abdu Bulama              | Ministry of Science and Technology   | Minister            |
| 482. |         | Abayomi Adebisi          | Ministry of Power  | Director            |
| 483. |         | Abegunde Austine         |  | Deputy Director     |
| 484. |         | Abubakar Malah Umar      | Energy Commission  | Director            |
| 485. |         | Adesoye Samotu           | Ministry of Foreign Affairs  | Official            |
| 486. |         | Albert Okorogu           | Ministry of Power  | Official            |
| 487. |         | C. J. Ibeh               | Ministry of Power  | Official            |
| 488. |         | David Adamu              | Ministry of Power  | Official            |
| 489. |         | Eli Jidere Bala          | Energy Commission  | Director General    |
| 490. |         | Faruk Yabo Yusuf         | Ministry of Power  | Assistant Director  |
| 491. |         | Gideon Majiyebo Adogbo   | Ahmadu Bello University  | Official            |
| 492. |         | Godknows Igali           | Ministry of Power  | Permanent Secretary |
| 493. |         | Grace Ene Orinya         |  | Official            |
| 494. |         | Ibrahim Auwalu           | Diplomatic Mission in UAE  | Ambassador          |
| 495. |         | Kumokou Ifiemi           | Ministry of Power  | Surveyor            |
| 496. |         | Micah Maku Edward        |  | Official            |
| 497. |         | Mohammed Ali Turkwa      |  | Special Assistant   |
| 498. |         | Mohammed Wakil           | Ministry of Power  | Minister            |
| 499. |         | Samuel Bem Ayangeaor     | Ministry of Power  | Official            |
| 500. |         | Sunday Idowu Shoetan     |  | Director            |
| 501. |         | Teddy Omoregbee          | Ministry of Power  | Engineer            |

| No.  | Country     | Name                            | Institution  | Position/Title                                   |
|------|-------------|---------------------------------|--|--|
| 502. |             | T. G. Fetuga                    |  | Director   |
| 503. |             | T. Seton                        |  | Deputy Director                                  |
| 504. | Norway      | Øivind Johansen                 | Ministry of Petroleum and Energy                       | Assistant Director                               |
| 505. |             | Camilla Sandbakken              | Diplomatic Mission in UAE                              | Second Secretary                                 |
| 506. |             | Kirsten Hammelbo                | Ministry of Foreign Affairs                            | Senior Adviser                                   |
| 507. |             | Sten Anders Berge               | Diplomatic Mission in UAE                              | Ambassador                                       |
| 508. | Oman        | Ali Hamed AlGhafri              | Public Authority for Electricity and Water             | Assistant Chairman                               |
| 509. |             | Sulaiman Salim Al-Harrasi       | Public Authority for Electricity and Water             | Senior Manager                                   |
| 510. | Pakistan    | Asif Ali Khan Durrani           | Diplomatic Mission in UAE                              | Ambassador and Permanent Representative to IRENA |
| 511. |             | Asjad Imtiaz Ali                | Alternative Energy Development Board                   | Chief Executive Officer                          |
| 512. |             | Faisal Aziz Ahmed               | Diplomatic Mission in UAE                              | Deputy Head of Mission                           |
| 513. |             | Faiza Haseeb                    | Diplomatic Mission in UAE                              | Second Secretary                                 |
| 514. |             | Mohammad Younas Dagha           | Ministry of Water and Power                            | Secretary  |
| 515. |             | Nafees Ahmad Khan               | Alternative Energy Development Board                   | Advisor  |
| 516. | Palau       | Elbuchel Sadang                 | Ministry of Finance                                    | Minister   |
| 517. |             | Flemming Umiich Sengebau        | Ministry of Natural Resources, Environment and Tourism | Minister   |
| 518. |             | Gregorio Decherong              | Palau Energy Office                                    | Director   |
| 519. |             | Judy L. Dean                    | Palau National Government                              | Grant Coordinator                                |
| 520. | Panama      | Fernando Díaz García de Paredes | National Energy Secretariat                            | Electricity Director                             |
| 521. | Peru        | Edwin Quintanilla Acosta        | Ministry of Energy and Mines                           | Vice Minister                                    |
| 522. |             | Carlos Tavera Vega              | Diplomatic Mission in UAE                              | Consul General                                   |
| 523. |             | David Zumarán Orosco            | Ministry of Energy and Mines                           | Advisor  |
| 524. |             | Eduardo Williams Calvo          | Ministry of Foreign Affairs                            | Advisor  |
| 525. |             | Liliam Ballon                   | Ministry of Foreign Affairs                            | Director   |
| 526. |             | Rómulo Acurio Traverso          | Ministry of Foreign Affairs                            | Director   |
| 527. | Philippines | Grace Relucio Princesa          | Diplomatic Mission in UAE                              | Ambassador                                       |
| 528. |             | Delza Lourdes D. Bayabao        | Diplomatic Mission in UAE                              | Attaché  |



| No.  | Country                          | Name                       | Institution   | Position/Title            |
|------|----------------------------------|----------------------------|---|---------------------------|
| 529. |                                  | Mario Castillo Marasigan   | Department of Energy  | Director                  |
| 530. |                                  | Marissa Perez Cerezo       | Department of Energy  | Director                  |
| 531. |                                  | Rowena Pangilinan-Daquipil | Diplomatic Mission in UAE                                       | Third Secretary           |
| 532. | Poland                           | Marcin Scigan              | Ministry of Economy   | Expert                    |
| 533. |                                  | Adam Krzymowski            | Diplomatic Mission in UAE                                       | Ambassador                |
| 534. |                                  | Andrzej Lysiak             | Diplomatic Mission in UAE                                       | First Counsellor          |
| 535. |                                  | Kinga Szafrankowska        | Diplomatic Mission in UAE                                       | Counsellor                |
| 536. |                                  | Klaudia Lach               | Diplomatic Mission in UAE                                       | Counsellor                |
| 537. | Portugal                         | Jaime Van Zeller Leitao    | Diplomatic Mission in UAE                                       | Ambassador                |
| 538. |                                  | Luis Camara                | Diplomatic Mission in UAE                                       | Deputy Head of Mission    |
| 539. | Qatar                            | Fahad Hamad al Tamimi      | Ministry of Energy and Industry                                 | Assistant Manager         |
| 540. |                                  | Faris bin Roumi Al-Naimi   | Diplomatic Mission in UAE                                       | Consul General            |
| 541. | Republic of Korea                | YangHo Chung               | Ministry of Trade, Industry and Energy                          | Deputy Minister           |
| 542. |                                  | Changwan Kim               | Ministry of Trade, Industry and Energy                          | Deputy Director           |
| 543. |                                  | Duk-Ryul Park              | Diplomatic Mission in UAE                                       | First Secretary           |
| 544. |                                  | Haeryong Kwon              | Diplomatic Mission in UAE                                       | Ambassador                |
| 545. |                                  | Hyung Jong Lee             | Ministry of Foreign Affairs                                     | Deputy Director-General   |
| 546. |                                  | Jaekyu Lim                 | Korea Energy Economics Institute                                | Managing Director         |
| 547. |                                  | Jungsoo Hur                | Ministry of Trade, Industry and Energy                          | Director                  |
| 548. |                                  | Sang Keun Yu               | Korea Energy Management Corporation                             | Assistant Manager         |
| 549. |                                  | SungHoo Bae                | Ministry of Foreign Affairs                                     | Senior Researcher         |
| 550. |                                  | Wooyoung Jeon              | Korea Energy Economics Institute                                | Researcher                |
| 551. | Romania                          | Adrian Macelaru            | Diplomatic Mission in UAE                                       | Ambassador                |
| 552. |                                  | Dorin-Nicolae Popa         | Diplomatic Mission in UAE                                       | Consul                    |
| 553. | Rwanda                           | Kamanzi Emmanuel           | Ministry of Infrastructure                                      | Principal Senior Engineer |
| 554. |                                  | Peace Kobusingye Kaliisa   | Ministry of Infrastructure                                      | Coordinator               |
| 555. | Saint Vincent and the Grenadines | Camillo Michael Gonsalves  | Ministry of Foreign Affairs, Foreign Trade and Consumer Affairs | Minister                  |

| No.  | Country               | Name                       | Institution   | Position/Title              |
|------|-----------------------|----------------------------|---|-----------------------------|
| 556. |                       | Ellsworth Dacon            | Ministry of National Security   | Director                    |
| 557. |                       | Godfred Timothy Pompey     | Ministry of National Security   | Official                    |
| 558. |                       | Melissa Anne De Freitas    | Government Office   | Energy Officer              |
| 559. | Samoa                 | Fa'alavaau Perina J. Sila  | Ministry of Foreign Affairs and Trade   | Chief Executive Officer     |
| 560. |                       | Patea Loli Malo Setefano   | Ministry of Natural Resources and Environment                                   | Chief Executive Officer     |
| 561. |                       | Vanda Faasoa Chan Ting     | Ministry of Natural Resources and Environment                                   | Assistant Executive Officer |
| 562. | Sao Tome and Principe | Tomé Soares Vera Cruz      | Ministry of Public Works, Infrastructure, Natural Resources and the Environment | Advisor                     |
| 563. |                       | Esterline Gonçalves Genero | Ministry of Foreign Affairs   | Advisor                     |
| 564. | Saudi Arabia          | Waleed Hussain Abulfaraj   | King Abdullah City for Atomic and Renewable Energy                              | Vice President              |
| 565. |                       | Abdulrahman Al Sumari      | King Abdullah City for Atomic and Renewable Energy                              | Specialist                  |
| 566. |                       | Ahmed Al Sadhan            | King Abdullah City for Atomic and Renewable Energy                              | Head of Department          |
| 567. |                       | Fahad Abu-Mouti            | King Abdullah City for Atomic and Renewable Energy                              | Head of Department          |
| 568. |                       | Haleel Al Sayer            | King Abdullah City for Atomic and Renewable Energy                              | Official                    |
| 569. |                       | Hussain Shibli             | King Abdullah City for Atomic and Renewable Energy                              | Researcher                  |
| 570. |                       | Maher Abdullah Alodan      | King Abdullah City for Atomic and Renewable Energy                              | Head of Department          |
| 571. |                       | Mohammed Al Torabi         | King Abdullah City for Atomic and Renewable Energy                              | Communications Officer      |
| 572. |                       | Othman Al Saleh            | King Abdullah City for Atomic and Renewable Energy                              | Specialist                  |
| 573. |                       | Saad Al Zahrani            | King Abdullah City for Atomic and Renewable Energy                              | Executive Secretary         |
| 574. |                       | Waleed Al Halwan           | King Abdullah City for Atomic and Renewable Energy                              | Official                    |
| 575. | Senegal               | Maïmouna Ndoye Seck        | Ministry of Energy  | Minister                    |
| 576. |                       | Abdoulaye Gueye            | Diplomatic Mission in UAE   | First Counsellor            |
| 577. |                       | Babacar Ba                 | Diplomatic Mission in UAE   | Ambassador                  |
| 578. |                       | Djiby Ndiaye               | National Renewable Energy Agency  | General Manager             |
| 579. |                       | Ibrahim Amadou Sarr        |   | Official                    |
| 580. |                       | Ibrahima Niane             | Ministry of Energy  | Director                    |

| No.  | Country         | Name                          | Institution  | Position/Title                                   |
|------|-----------------|-------------------------------|--|--|
| 581. |                 | Ismaïla Lo                    | Ministry of Energy   | Director   |
| 582. |                 | Issa Ndoye                    |  | Official   |
| 583. |                 | Oumou Kalsoum Sall            | Diplomatic Mission in UAE                                    | First Counsellor                                 |
| 584. | Serbia          | Miloš Perišić                 | Diplomatic Mission in UAE                                    | Chargé d'Affaires                                |
| 585. |                 | Miloš Banjac                  | Diplomatic Mission in UAE                                    | Assistant  |
| 586. |                 | Vesna Simić                   | Ministry of Energy and Mining                                | Senior Advisor                                   |
| 587. | Seychelles      | Will Agricole                 | Department of Environment and Energy                         | Principal Secretary                              |
| 588. |                 | Dick Patrick Esparon          | Diplomatic Mission in UAE                                    | Ambassador                                       |
| 589. |                 | Philippe Morin                | Public Utilities Corporation                                 | Chief Executive Officer                          |
| 590. |                 | Terry Ronny Romain            | Diplomatic Mission in UAE                                    | Counsellor                                       |
| 591. |                 | Vincent Josee Amelie          | Ministry for Home Affairs, Environment, Transport and Energy | Coordinator                                      |
| 592. | Sierra Leone    | Alpha Seray Timbo             | Diplomatic Mission in UAE                                    | Ambassador and Permanent Representative to IRENA |
| 593. |                 | Bahige Annan                  | Diplomatic Mission in UAE                                    | Consul   |
| 594. | Singapore       | Tan Lui Hai                   | Ministry of Trade and Industry                               | Deputy Director                                  |
| 595. |                 | Abdulrahman Al Jaberi         | Diplomatic Mission in UAE                                    | Protocol Manager                                 |
| 596. |                 | Ravindran Alfreds             | Diplomatic Mission in UAE                                    | Deputy Chief of Mission                          |
| 597. |                 | Sharifa Aljunied              | Diplomatic Mission in UAE                                    | Head of Chancery                                 |
| 598. |                 | Umej singh Bhatia             | Diplomatic Mission in UAE                                    | Ambassador                                       |
| 599. | Slovakia        | Dušan Horniak                 | Diplomatic Mission in UAE                                    | Ambassador                                       |
| 600. |                 | Lubomír Lúčan                 | Diplomatic Mission in UAE                                    | Deputy Head of Mission                           |
| 601. | Solomon Islands | Samson Maneka                 | Ministry of Mines, Energy and Rural Electrification          | Minister   |
| 602. |                 | Jeffrey Scott Kauha           | Ministry of Mines, Energy and Rural Electrification          | Permanent Secretary                              |
| 603. |                 | John Isidoro Korinihona       | Ministry of Mines, Energy and Rural Electrification          | Director   |
| 604. | Somalia         | Nasrudin Rage Ali             | Ministry of Mining, Energy and Water Resources               | Director   |
| 605. |                 | Abdirahman Sid Ahmed          | Ministry of Mining, Energy and Water Resources               | General Manager                                  |
| 606. | South Africa    | Tina Monica Joemat-Pettersson | Department of Energy   | Minister   |
| 607. |                 | Garrith Bezuidenhout          | Department of Energy   | Acting Director                                  |

| No.  | Country   | Name                                 | Institution  | Position/Title  |
|------|-----------|--------------------------------------|--|---|
| 608. |           | Kevin Oosthuizen                     | Diplomatic Mission in UAE                                    | Deputy Head of Mission                                    |
| 609. |           | Maduna Petrus Ngobeni                | Department of Energy   | Deputy Director   |
| 610. |           | Mokgadi Modise                       | Department of Energy   | Chief Director  |
| 611. |           | Mpetjane Kgaogelo<br>Lekgoro         | Diplomatic Mission in UAE                                    | Ambassador  |
| 612. |           | Thobekile Princess<br>Nxumalo        | Department of Energy   | Assistant Director  |
| 613. |           | Wolsey Otto Barnard                  | Department of Energy   | Deputy Director<br>General                                |
| 614. | Spain     | Federico Jose Ramos<br>De Armas      | Ministry of Agriculture, Food<br>and Environment             | Secretary of State  |
| 615. |           | Ana Fornells de Frutos               | Ministry of Agriculture, Food<br>and Environment             | Coordinator   |
| 616. |           | Bordallo Sainz Nuño                  | Diplomatic Mission in UAE                                    | Deputy Head of<br>Mission                                 |
| 617. |           | Eduardo González<br>Fernández        | Ministry of Agriculture, Food<br>and Environment             | Deputy Director   |
| 618. |           | Jaime Montalvo                       | Diplomatic Mission in UAE                                    | Counsellor  |
| 619. |           | José Eugenio Salarich                | Diplomatic Mission in UAE                                    | Ambassador and<br>Permanent<br>Representative to<br>IRENA |
| 620. |           | Rebeca Sainz Mantecón                | Ministry of Economy and<br>Finance                           | Advisor   |
| 621. |           | Sonia Martínez                       | Institute for Diversification and<br>Saving of Energy (IDEA) | Senior Project<br>Manager                                 |
| 622. |           | Susana Magro Andrade                 | Ministry of Agriculture, Food<br>and Environment             | Director-General  |
| 623. |           | Victor José Suanzes                  | Diplomatic Mission in UAE                                    | Attaché   |
| 624. | Sri Lanka | Sisira Kumara<br>Senavirathne        | Diplomatic Mission in UAE                                    | Chargé d'Affaires   |
| 625. |           | N.P.P. Wijesekera                    | Diplomatic Mission in UAE                                    | Assistant   |
| 626. |           | W.K.S. Dissanayake                   | Diplomatic Mission in UAE                                    | First Secretary   |
| 627. | Sudan     | Tabita Potros Teia<br>Shokai         | Ministry of Water Resources<br>and Electricity               | State Minister  |
| 628. |           | Abdelkhalig<br>Abdelhamid Mohamed    | Diplomatic Mission in UAE                                    | Official  |
| 629. |           | Ahmed Yousif<br>Mohamed Elsiddiq     | Diplomatic Mission in UAE                                    | Ambassador and<br>Permanent<br>Representative to<br>IRENA |
| 630. |           | Amal Aldirdiry Omer<br>Babiker Karom | Ministry of Water Resources<br>and Electricity               | Engineer  |

| No.  | Country     | Name                                | Institution   | Position/Title           |
|------|-------------|-------------------------------------|---|--------------------------|
| 631. |             | Noureldaiem Abdelgadir Hamad Elniel | Diplomatic Mission in UAE                                       | Deputy Head of Mission   |
| 632. |             | Zahra Galal Eldeen Abubaker         | Diplomatic Mission in UAE                                       | Official                 |
| 633. | Swaziland   | Jabulile Mshwama                    | Ministry of Natural Resources and Energy                        | Minister                 |
| 634. |             | Constance Nomvula Mthupha           | Diplomatic Mission in UAE                                       | Third Secretary          |
| 635. |             | Makhosonkhe Donald Mazibuko         | Diplomatic Mission in UAE                                       | Counsellor               |
| 636. |             | Gcina Dlamini                       | Diplomatic Mission in UAE                                       | Ambassador               |
| 637. |             | Henry Dumisani Shongwe              | Ministry of Natural Resources and Energy                        | Director                 |
| 638. |             | Lindiwe Chola Dlamini               | Ministry of Natural Resource and Energy                         | Senior Energy Officer    |
| 639. |             | Mandla David Vilakati               | Ministry of Natural Resource and Energy                         | Energy Officer           |
| 640. | Sweden      | Erik Brandsma                       | Swedish Energy Agency   | Director General         |
| 641. |             | Bo Diczfalusy                       | Ministry of Enterprise, Energy and Communications               | Director                 |
| 642. |             | Jan Thesleff                        | Diplomatic Mission in UAE                                       | Ambassador               |
| 643. |             | Pia Roed                            | Diplomatic Mission in UAE                                       | Deputy Head of Mission   |
| 644. | Switzerland | Walter Steinmann                    | Department of Environment, Transport, Energy and Communications | Secretary of State       |
| 645. |             | Adrian Bless                        | Diplomatic Mission in UAE                                       | Counsellor               |
| 646. |             | Alexandra Houston                   | Diplomatic Mission in UAE                                       | Administrative Assistant |
| 647. |             | Andrea Reichlin                     | Diplomatic Mission in UAE                                       | Ambassador               |
| 648. |             | Guillaume Cassaigneau               | Federal Office of Energy  | Diplomatic Advisor       |
| 649. |             | Jean-Christophe Füeg                | Federal Office of Energy  | Head of Department       |
| 650. | Tajikistan  | Bobokalonov Yousaf                  | Diplomatic Mission in UAE                                       | Chargé d'Affaires        |
| 651. |             | Eshov Subhonovich Kamoliddin        | Diplomatic Mission in UAE                                       | Attaché                  |
| 652. |             | Kamoliddin Eshov                    | Diplomatic Mission in UAE                                       | Attaché                  |
| 653. |             | Yousry Abdulmajid                   |   | Public Relations Manager |
| 654. | Togo        | Abdoulaye Robil Nassoma             | Ministry of Mines and Energy                                    | Director                 |
| 655. |             | Kuami Wowogno                       | Yil Agency  | Director                 |

| No.  | Country             | Name                  | Institution  | Position/Title                                   |
|------|---------------------|-----------------------|--|--|
| 656. | Tonga               | Paula Pouvalu Ma'u    | Ministry of Information and Communications                   | Interim Chief Executive Officer                  |
| 657. |                     | Inoke Finau Vala      | Tonga Energy Road Map  | Director   |
| 658. |                     | Tevita Tukunga        | Ministry of Lands, Survey, Natural Resources and Environment | Director   |
| 659. | Trinidad and Tobago | Randy Ramadhar Singh  | Ministry of Energy and Energy Affairs                        | Advisor  |
| 660. | Tunisia             | Tarek Bettaieb        | Diplomatic Mission in UAE                                    | Ambassador                                       |
| 661. | Turkey              | Selahattin Çimen      | Ministry of Energy and Natural Resources                     | Deputy Undersecretary                            |
| 662. |                     | Ahmet Gokhan Demirtas | Diplomatic Mission in UAE                                    | Second Secretary                                 |
| 663. |                     | Asli Guven            | Energy Department  | Head of Department                               |
| 664. |                     | Cem Doğan             | Ministry of Energy and Natural Resources                     | Assistant Expert                                 |
| 665. |                     | Hakan Akata           | Ministry of Energy and Natural Resources                     | Assistant Expert                                 |
| 666. |                     | Halime Semerci        | Ministry of Energy and Natural Resources                     | Director   |
| 667. |                     | Ilham Atuş            | Diplomatic Mission in UAE                                    | Second Secretary                                 |
| 668. |                     | Muhammed Necip Erim   | Ministry of Energy and Natural Resources                     | Assistant Specialist                             |
| 669. |                     | Mustafa Erkeç         | Ministry of Energy and Natural Resources                     | Assistant Expert                                 |
| 670. |                     | Mustafa Levent Bilgen | Diplomatic Mission in UAE                                    | Ambassador and Permanent Representative to IRENA |
| 671. |                     | Sebahattin Öz         | Ministry of Energy and Natural Resources                     | Head of Department                               |
| 672. |                     | Yusaf Yazar           | Ministry of Energy and Natural Resources                     | Director General                                 |
| 673. | Tuvalu              | Vete Palakua Sakaio   | Ministry of Public Utilities and Infrastructure              | Deputy Prime Minister                            |
| 674. |                     | Kapuafe Lifuka        | Ministry of Public Utilities and Infrastructure              | Acting Director                                  |
| 675. | Uganda              | Simon D'Ujanga        | Ministry of Energy and Mineral Development                   | Minister   |
| 676. |                     | Agather Atuhaire      | Ministry of Energy and Mineral Development                   | Communications                                   |
| 677. |                     | Aggrey Dhamuzungu     | Diplomatic Mission in UAE                                    | Second Secretary                                 |
| 678. |                     | Godfrey Ndawula       | Ministry of Energy and Mineral Development                   | Assistant Commissioner                           |

| No.  | Country              | Name                           | Institution                                | Position/Title                                 |
|------|----------------------|--------------------------------|--|--|
| 679. |                      | Hippolytus Eric Mbabazi-Araali | Diplomatic Mission in UAE                  | Deputy Head of Mission                         |
| 680. |                      | Irene Florence Persis Wekiya   | Diplomatic Mission in UAE                  | Ambassador                                     |
| 681. |                      | Michael Ahimbisibwe            | Ministry of Energy and Mineral Development | Senior Energy Officer                          |
| 682. | United Arab Emirates | Sultan Ahmed Al Jaber          | Cabinet of UAE                             | Minister of State                              |
| 683. |                      | Ali Al Shafar                  | Ministry of Foreign Affairs                | Director                                       |
| 684. |                      | Ameirah Abdulla Aldahmani      | Ministry of Foreign Affairs                | Analyst  |
| 685. |                      | Dane McQueen                   | Ministry of Foreign Affairs                | Energy Advisor                                 |
| 686. |                      | Fahad Obaid Mohamed Altaffag   | Ministry of Foreign Affairs                | Official                                       |
| 687. |                      | Ghalia Humaidan                | Ministry of Foreign Affairs                | First Secretary                                |
| 688. |                      | Ghasaq Yousif Shaheen          | Ministry of Foreign Affairs                | Energy Analyst                                 |
| 689. |                      | Hanadi Mohammad Al Nasa        | Ministry of Foreign Affairs                | Administrative Assistant                       |
| 690. |                      | Hannes Alexander Reinisch      | Ministry of Foreign Affairs                | Advisor  |
| 691. |                      | Maitha Mohammed Al Kaabi       | Ministry of Foreign Affairs                | Attaché  |
| 692. |                      | Majed Dodeen                   | Ministry of Foreign Affairs                | Translator                                     |
| 693. |                      | Mohammad Yousef Bastaki        | Ministry of Foreign Affairs                | Analyst  |
| 694. |                      | Mohammed Qedaib Alkaabi        | Ministry of Foreign Affairs                | Director                                       |
| 695. |                      | Nadia Verjee                   | Cabinet of UAE                             | Advisor  |
| 696. |                      | Naoko Kubo                     | Ministry of Foreign Affairs                | Analyst  |
| 697. |                      | Noura Al Boujerami             | Ministry of Foreign Affairs                | Secretary                                      |
| 698. |                      | Obaid Ahmed AlZaabi            | Ministry of Foreign Affairs                | Analyst  |
| 699. |                      | Omar Shehadeh                  | World Expo Dubai 2020                      | Director                                       |
| 700. |                      | Omran Taryam                   | Ministry of Foreign Affairs                | Attaché  |
| 701. |                      | Sameer Assaf                   | Ministry of Foreign Affairs                | Policy Expert                                  |
| 702. |                      | Shaima Al Aydarous             | Ministry of Foreign Affairs                | Analyst  |
| 703. |                      | Shaima Al Habsi                | Ministry of Foreign Affairs                | Attaché  |
| 704. |                      | Taif Mohamed Al Amiri          | Ministry of Foreign Affairs                | Analyst  |
| 705. |                      | Thani Ahmed Saeed Al Zeyoudi   | Ministry of Foreign Affairs                | Director and Permanent Representative to IRENA |
| 706. |                      | Tina Latif                     | Ministry of Foreign Affairs                | Policy Advisor                                 |

| No.  | Country  | Name                        | Institution   | Position/Title                                   |
|------|--|-----------------------------|---|--|
| 707. | United Kingdom of Great Britain and Northern Ireland | Nick Clements               | Department of Energy and Climate Change   | Head of Department                               |
| 708. |  | Julian Mansfield            | Diplomatic Mission in UAE   | Second Secretary                                 |
| 709. |  | Philip Parham               | Diplomatic Mission in UAE   | Ambassador                                       |
| 710. | United States  | Amos J. Hochstein           | Department of State   | Special Envoy                                    |
| 711. |  | Andrea Ann Richter          | Department of State   | Chief of Staff                                   |
| 712. |  | Barbara Leaf                | Diplomatic Mission in UAE   | Ambassador                                       |
| 713. |  | Dave Turk                   | Department of Energy  | Deputy Assistant Secretary                       |
| 714. |  | David Duerden               | Diplomatic Mission in UAE   | Press Officer                                    |
| 715. |  | Debra Juncker               | Department of State   | Director   |
| 716. |  | Desiree Pipkins             | Department of Energy  | Special Advisor                                  |
| 717. |  | Ethan Goldrich              | Diplomatic Mission in UAE   | Deputy Chief of Mission                          |
| 718. |  | Judith Baker                | Diplomatic Mission in UAE   | Economic Officer                                 |
| 719. |  | Kevin Su                    | Diplomatic Mission in UAE   | Economic Officer                                 |
| 720. |  | Mark David Reichhardt       | Department of Energy  | General Engineer                                 |
| 721. |  | Mark Motley                 | Diplomatic Mission in UAE   | Economic Officer                                 |
| 722. |  | Matthew Davis               | Department of Energy  | Communications Specialist                        |
| 723. |  | Moira Thomas                | Diplomatic Mission in UAE   | Economic Officer                                 |
| 724. |  | Robert Faucher              | Department of State   | Director   |
| 725. |  | Robert Louis Sandoli        | Department of Energy  | Director   |
| 726. |  | Samuel Julio Friedmann      | Department of Energy  | Deputy Assistant Secretary                       |
| 727. |  | Stephanie Duran             | Department of Energy  | Foreign Affairs Specialist                       |
| 728. |  | Timothy G. Williamson       | Department of State   | Deputy Director                                  |
| 729. | Uruguay  | Ramón Méndez                | Ministry of Industry, Energy and Mining   | Secretary  |
| 730. |  | Nelson Yemil Chabén Labadie | Diplomatic Mission in UAE   | Ambassador and Permanent Representative to IRENA |
| 731. |  | Wilson Omar Sierra Martínez | Ministry of Industry, Energy and Mining   | Director   |
| 732. | Vanuatu  | James Bule                  | Ministry for Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management | Minister   |



| No.  | Country | Name                           | Institution   | Position/Title          |
|------|---------|--------------------------------|---|-------------------------|
| 733. |         | Jesse Benjamin                 | Department of Energy  | Director                |
| 734. |         | Yvon Basile                    | Department of Foreign Affairs and International Cooperation | Director                |
| 735. | Yemen   | Abdullah Mohsen Al-Akwa        | Ministry of Electricity and Energy                          | Minister                |
| 736. |         | Abdullah Abdullah Al-Faqih     | Diplomatic Mission in UAE                                   | Chargé d'Affaires       |
| 737. |         | Amani Ali Saleh Al-Loudhai     | Diplomatic Mission in UAE                                   | Third Secretary         |
| 738. |         | Harith Abdulkarim Lutf Al-Amri | Ministry of Electricity and Energy                          | Deputy Director General |
| 739. |         | Mohammed Hameed Al-Shaabi      | Ministry of Electricity and Energy                          | Director General        |

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Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

17 January 2015

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## **List of observers at the fifth session of the Assembly**

### **IRENA Signatories / States in Accession**

1. Afghanistan
2. Austria
3. Chad
4. Chile
5. Colombia
6. Comoros
7. Costa Rica
8. Democratic Republic of the Congo
9. Gabon
10. Honduras
11. Ireland
12. Lebanon
13. Liberia
14. Libya
15. Madagascar
16. Morocco
17. Timor-Leste
18. United Republic of Tanzania
19. Uzbekistan

**UN Member States: Non Signatories / Non States-in-Accession**

1. Bhutan
2. Botswana
3. Brazil
4. El Salvador
5. Russian Federation
6. Thailand
7. Turkmenistan
8. Ukraine
9. Viet Nam

**Other Entities**

1. 50Hertz Transmission GmbH
2. Abu Dhabi Environment Agency
3. Abu Dhabi Fund for Development
4. ACWA Power International
5. African Biofuel and Renewable Energy Company
6. African Development Bank Group
7. African Union
8. Alliance for Rural Electrification
9. Alstom Power
10. American Council on Renewable Energy
11. Arab Forum for Environment and Development
12. ASEAN Centre for Energy
13. Asian Development Bank
14. Astana Expo-2017 National Company
15. Caribbean Community Secretariat
16. Central American Integration System (SICA)
17. Centre for Energy, Environment and Technological Research
18. Citigroup Inc.
19. Clean Energy Solutions Centre
20. Cleaner Production Centre (CPML), Nicaragua
21. Clifford Chance LLP
22. Climate Action Network
23. Climate Institute
24. Council on Energy, Environment and Water
25. Dubai Electricity and Water Authority
26. E3 Analytics
27. Economic Cooperation Organization

28. Economic Research Institute for ASEAN and East Asia
29. Enel
30. Energy Charter
31. Energy Federation of Energy Traders
32. Energy Regulators Regional Association
33. Europe Aid
34. European Investment Bank
35. European Patents Office
36. European Renewable Energies Federation
37. European Solar Thermal Industry Federation
38. First Solar
39. Fraunhofer Institute for Solar Energy Systems
40. General Electric - Middle East & Africa
41. German Aerospace Center (DLR)
42. German International Cooperation (GIZ)
43. G-Global
44. Global Wind Energy Council
45. Greenpeace International
46. Heat Pump and Thermal Storage Technology Center, Japan
47. IKEA
48. Industrial Technology Research Institute (ITRI), Chinese Taipei
49. Inter-American Development Bank
50. International Electrotechnical Commission
51. International Energy Agency
52. International Energy Forum
53. International Geothermal Association
54. International Institute for Sustainable Development
55. International Organisation of La Francophonie
56. International Solar Energy Society
57. Japan Renewable Energy Foundation
58. Joint Research Centre, Institute for Energy and Transport
59. Kazatomprom
60. Latin America Energy Organization (OLADE)
61. League of Arab States
62. Masdar
63. Masdar Institute
64. Mines-ParisTech
65. National Energy Council (DEN), Indonesia
66. National Renewable Energy Laboratory
67. New and Renewable Energy Authority, Egypt
68. New Climate Economy
69. Novozymes

70. Pacific Islands Development Forum
71. Pacific Power Association
72. Practical Action
73. Regional Center for Renewable Energy and Energy Efficiency
74. Regional Environmental Center
75. Renewable Energy and Energy Efficiency Partnership
76. Renewable Energy Policy Network for the 21<sup>st</sup> Century
77. Research Centre for Energy, Environment and Technology (CIEMAT) Spain
78. Schneider Electric
79. Secretariat of the Pacific Community
80. SIDS - DOCK
81. Siemens
82. SMA Solar Energy AG
83. Solar Electric Light Company (SELCO)
84. South Asian Centre For Climate Change
85. South Center
86. Southern African Power Pool
87. Sustainable Energy for All (SE4All)
88. Technical University, Denmark
89. The Climate Group
90. Total
91. Trama TecnoAmbiental
92. Ukrainian Wind Energy Association
93. Union of Renewable Energy Sources (SER), France
94. United Nations Development Program
95. United Nations Economic and Social Commission for Asia and the Pacific
96. United Nations Economic and Social Commission for Western Asia
97. United Nations Economic Commission for Africa
98. United Nations Environment Programme
99. United Nations Framework Convention on Climate Change
100. United Nations High Commissioner for Refugees
101. United Nations Human Settlements Programme
102. United Nations Population Fund
103. University of California Berkeley
104. Vestas
105. World Bank
106. World Future Council
107. World Intellectual Property Organization
108. World Meteorological Organization
109. World Wildlife Fund
110. World Wind Energy Association
111. Yingli Solar

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Fifth session of the Assembly of IRENA

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### **Report of the Credentials Committee**

1. In accordance with Rule 25 of the Rules of Procedure of the Assembly, the Assembly appointed a Credentials Committee consisting of the following nine members:

1. Angola
2. Cameroon
3. Czech Republic
4. Denmark
5. Fiji
6. Japan
7. Jordan
8. Sierra Leone
9. Yemen

2. The Credentials Committee met on 17 January 2015 and elected H.E. Iya Tidjani of Cameroon as Chairperson.

3. The Committee examined the credentials submitted to the Secretariat in accordance with Rule 24 of the Rules of Procedure of the Assembly in respect of the representatives attending the fifth session of the Assembly. The Credentials Committee had before it the information provided by the Secretariat on the status of the credentials received as at that date.

4. The Committee determined that, as of 17 January 2015, the Members listed below had submitted credentials in the form required by Rule 24 of the Rules of Procedure of the Assembly. Those delegations that did not submit credentials but are represented by the competent authority were deemed to conform to the requirement. The Committee recommends to the Assembly that the following Members are entitled to participate in its fifth session:

1. Albania
2. Algeria
3. Angola
4. Antigua and Barbuda
5. Argentina
6. Armenia
7. Australia

8. Azerbaijan
9. Bahamas
10. Bahrain
11. Bangladesh
12. Belarus
13. Belgium
14. Benin
15. Bosnia and Herzegovina
16. Burkina Faso
17. Cabo Verde
18. Cameroon
19. China
20. Cyprus
21. Czech Republic
22. Denmark
23. Djibouti
24. Dominican Republic
25. Ecuador
26. Egypt
27. Eritrea
28. Ethiopia
29. European Union
30. Fiji
31. Finland
32. France
33. Germany
34. Ghana
35. Greece
36. Grenada
37. Hungary
38. Iceland
39. India
40. Indonesia
41. Iran (Islamic Republic of)
42. Iraq
43. Israel
44. Italy
45. Japan
46. Jordan
47. Kazakhstan
48. Kenya
49. Kiribati
50. Latvia
51. Lesotho

52. Lithuania
53. Luxemburg
54. Malaysia
55. Maldives
56. Mali
57. Marshall Islands
58. Mauritania
59. Mauritius
60. Mexico
61. Micronesia (Federated States of)
62. Monaco
63. Mongolia
64. Montenegro
65. Mozambique
66. Namibia
67. Nauru
68. Netherlands
69. New Zealand
70. Nicaragua
71. Niger
72. Nigeria
73. Norway
74. Oman
75. Pakistan
76. Palau
77. Panama
78. Peru
79. Philippines
80. Poland
81. Portugal
82. Qatar
83. Republic of Korea
84. Romania
85. Saint Vincent and the Grenadines
86. Samoa
87. Sao Tome and Principe
88. Saudi Arabia
89. Senegal
90. Seychelles
91. Sierra Leone
92. Singapore
93. Slovakia
94. Solomon Islands
95. Somalia



96. South Africa
97. Spain
98. Sudan
99. Swaziland
100. Sweden
101. Switzerland
102. The former Yugoslav Republic of Macedonia
103. Togo
104. Tunisia
105. Turkey
106. Tuvalu
107. Uganda
108. United Arab Emirates
109. United Kingdom of Great Britain and Northern Ireland
110. United States of America
111. Uruguay
112. Vanuatu
113. Yemen

5. The Credentials Committee noted that a number of delegations attending the fifth session of the Assembly had not submitted any credentials. The Committee recalled the importance of submitting credentials in accordance with the Rules of Procedure of the Assembly and called on delegations to conform to this requirement at forthcoming sessions of the Assembly.

6. The Committee authorised the Chair to update its report orally when presenting it to the Assembly so as to reflect any additional credentials received by the Secretariat subsequent to the meeting of the Credentials Committee.

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Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

18 January 2015

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## **Decision on the membership of the Council of IRENA**

The Assembly,

*Noting* that, pursuant to Article IX paragraph G number 1 of the IRENA Statute, the Assembly shall, by consensus of the Members present, elect the members of the Council;

*Noting further* that Article X.A of the Statute states that the members of the Council shall be elected on a rotating basis as laid down in the Rules of Procedure of the Assembly, with a view to ensuring effective participation of developing and developed countries and achieving fair and equitable geographical distribution and effectiveness of the Council's work;

*Noting further* that the election to the IRENA Council is also governed by Rules 69 and 70 of the Rules of Procedure of the Assembly, as contained in document A/3/6, with due regard being paid to the Regional Groupings set out in the annex thereto;

*Recalling* the extensive consultations conducted between June and December 2014 by facilitators within each regional grouping, as per the approach agreed by the Council at its seventh and eighth meeting;

*Noting with gratitude* the efforts of these facilitators to enable inclusive and transparent consideration of the matter, as well as the efforts of all Members to reach agreement on Council seat allocation in a spirit of cooperation and compromise;

*Bearing in mind* the need to ensure inclusiveness and engagement by all countries in the global effort to scale up the deployment of renewable energy and *encouraging* the Council in this context to ensure transparent and broad participation of all Members of the Agency in its work;

*Decides* to elect the members of the Council for 2015-2016 set out in the Annex to the present decision.

## ANNEX

## IRENA Council Membership 2015-2016

## 2015

Members

1. Algeria
2. Cameroon
3. China
4. Ethiopia
5. Fiji
6. France
7. Gambia
8. Germany
9. India
10. Italy
11. Japan
12. Malaysia
13. New Zealand
14. Nicaragua
15. Poland
16. Swaziland
17. Trinidad and Tobago
18. Turkey
19. United Arab Emirates
20. United States of America
21. Uruguay

Alternates

1. Cyprus
2. Kiribati
3. Somalia
4. United Kingdom
5. Zimbabwe

## 2016

Members

1. Albania
2. Algeria
3. Bahamas
4. Belgium
5. Cameroon
6. China
7. Cyprus
8. Ethiopia
9. Fiji
10. Gambia
11. India
12. Israel
13. Japan
14. Nicaragua
15. Poland
16. Republic of Korea
17. United Arab Emirates
18. United Kingdom
19. United States of America
20. Uruguay
21. Zambia

Alternates

1. France
2. Germany
3. Kiribati
4. Somalia
5. Turkey
6. Zimbabwe

Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

18 January 2015

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## **Decision on Amendments to the Rules of Procedure of the Assembly and of the Council of IRENA**

The Assembly,

*Noting* that Article IX paragraph H number 2 of the Statute of the International Renewable Energy Agency requests the Assembly to approve the rules of procedure of the Assembly and of the Council;

*Recalling* that the Assembly at its first session, with decision A/1/DC/1, adopted Provisional Rules of Procedure of the Assembly and of the Council, which were subsequently amended at its second and third session;

*Recalling also* that, at its third session, the Assembly adopted through decision A/3/DC/2 the Rules of Procedure of the Assembly and the Rules of Procedure of the Council, including all amendments to the Provisional Rules, as contained in document A/3/6;

*Recalling further* that, at its fourth session in decision A/4/DC/3, the Assembly adopted the document on the selection and appointment of the Director-General of IRENA, contained in document A/4/11, as an addendum to the Rules of Procedure of the Assembly and of the Council;

*Noting* that, in decision A/2/DC/4 on the Rules of Procedure for subsidiary organs to be included in the Provisional Rules of Procedure of the Assembly and of the Council, the Assembly decided to ‘review the Rules of Procedure of the Council prior to the fifth session of the Assembly with a view to considering any amendments, if required, at the fifth session of the Assembly’;

*Recalling* that the Council at its eighth meeting considered amendments to the Rules of Procedure of the Council as contained in document C/8/4, recommended that the Assembly approve them, and requested the Secretariat to submit to the fifth session of the Assembly a consolidated text of the Rules of Procedure of the Assembly and of the Council, including all proposed amendments, for the Assembly’s consideration and approval in accordance with the procedure set forth in Rule 52 of the Rules of Procedure of the Council;

*Taking note of* the Note by the Secretariat A/5/5 containing in its Annex a consolidated text of the Rules of Procedure of the Assembly and of the Council of IRENA, including the proposed amendments to Rules 23 to 25 of the Rules of Procedure of the Council and the above-referred addendum;

*Decides* to approve the revised Rules 23 to 25 of the Rules of Procedure of the Council, with effect as of the ninth meeting of the Council, as reflected in the consolidated text of the Rules of Procedure of the Assembly and the Council contained in Annex to document A/5/5.

Fifth session of the Assembly of IRENA

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### **Decision on Amendments to the Charter and Administrative Rules of the IRENA Staff Provident Fund**

The Assembly,

*Recalling* that the Assembly at its third session took note of the 2011 Annual Report of the Provident Fund Management Board on the Operations of the Staff Provident Fund of IRENA setting out the Charter and Administrative Rules of the IRENA Staff Provident Fund in its Annex 2 (see paragraph 94 of A/3/SR/1);

*Noting* that, pursuant to Articles 12.2 and 14.3 of the Charter of the IRENA Staff Provident Fund, any amendment to the Charter and Administrative Rules shall be duly notified to the Assembly;

*Noting further* that Article 3.2 of the Charter specifies that additional future rules on voluntary contributions are to be defined by the Provident Fund Management Board and are subject to approval of the Assembly;

*Noting* that the Council at its eighth meeting took note of the Report of the Provident Fund Management Board on Amendments to the Charter and Administrative Rules of the IRENA Staff Provident Fund as contained in document C/8/5 and agreed with the recommendations specified in paragraph 11 therein;

*Having considered* the Report of the Provident Fund Management Board on Amendments to the Charter and Administrative Rules of the IRENA Staff Provident Fund as contained in document A/5/7;

1. *Takes note* of the amendments to the Charter and Administrative Rules of the IRENA Staff Provident Fund;
2. *Approves* the proposed text of Rule 5 specified therein pertaining to additional voluntary contributions.

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### **Decision on the revised Investment Policy of the IRENA Staff Provident Fund**

The Assembly,

*Noting* that pursuant to Article 1.5 of the Principles for the IRENA Staff Provident Fund as set out in document A/1/DC/4, the Investment Policy of the IRENA Staff Provident Fund and any future changes to this policy shall be submitted to the Assembly for approval;

*Recalling* that the Assembly at its third session, through decision A/3/DC/8, approved the Investment Policy of the IRENA Staff Provident Fund as set out in document A/3/20;

*Noting* that the Council at its eighth meeting took note of the Proposal on a revised Investment Policy of the IRENA Staff Provident Fund as contained in document C/8/6 and agreed with the recommendations specified in paragraph 5 therein;

*Having considered* the revised Investment Policy of the IRENA Staff Provident Fund as contained in document A/5/8;

*Approves* the Investment Policy of the IRENA Staff Provident Fund as revised.

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### **Decision on Amendments to the Staff Regulations and Rules for the International Renewable Energy Agency**

The Assembly,

*Recalling* that the Assembly at its first session, through decision A/1/DC/3, approved the Staff Regulations of the International Renewable Energy Agency and that these were subsequently amended by the Assembly through decision A/2/DC/8;

*Noting* that, pursuant to Staff Regulation 13.1, the Staff Regulations may be amended by the Assembly;

*Noting further* that, in accordance with Staff Regulations 13.2 and 13.3, the Director-General shall provide and enforce such Staff Rules as he considers necessary in order to implement the Staff Regulations, and report to the Assembly such new and/or amended Staff Rules;

*Recalling* that the Assembly at its second session took note of the Staff Rules of the International Renewable Energy Agency as set out in document A/2/11;

*Noting* that the Council at its eighth meeting took note of Report of the Director-General on Amendments to the Staff Regulations and Rules as contained in document C/8/7 and agreed with the recommendations specified in paragraphs 8 and 15 therein;

*Having considered* the Report of the Director-General on Amendments to the Staff Regulations and Rules as contained in document A/5/9;

1. *Adopts* the proposed amendment to Staff Regulation 4.3(a);
2. *Takes note* of new Staff Rule 104.11 and amended Staff Rules 104.9 and 110.8.



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## **Decision on the Administration of Justice at IRENA**

The Assembly,

*Recalling* that the Assembly at its third session, through decision A/3/DC/7, established an arbitration system for IRENA as described in paragraphs 27 to 55 of the Director-General's report on Administration of Justice at IRENA (A/3/18) and adopted the Provisional Arbitration Rules set out in Annex 3 to that report;

*Recalling further* that the Assembly through the said decision requested the Director-General, after consultation with the staff representative body, to submit to the Assembly at its fifth session a report on the operation of the system and recommendations to address issues or concerns that may have been found in the process;

*Noting* that the Council at its eighth meeting took note of the Report of the Director-General on the Operation of the Arbitration System for IRENA' as contained in document C/8/9 and agreed with the recommendations specified in paragraph 7 therein;

*Having considered and noting* the Report of the Director-General on the Operation of the Arbitration System for IRENA as contained in document A/5/11;

1. *Approves* the amendments proposed to Rules 14.1 and 15.1 of the Provisional Rules of Arbitration;
2. *Requests* the Director-General, after consultation with the staff representative body, to submit to the Assembly at its seventh session a report on the operation of the system and recommendations to address issues or concerns that may have been found in the process, including any recommendation or comment by an arbitrator on the need for amendment of the Rules.

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Fifth session of the Assembly of IRENA

Abu Dhabi, 17 – 18 January 2015

18 January 2015

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## **Decision on the Indicative IRENA Scale of Contributions for 2015**

The Assembly,

*Recalling* that the Assembly at its fourth session, through decision A/4/DC/1, adopted the Work Programme and Budget for 2014-2015;

*Noting* that, pursuant to Article XII.A.1 of the Statute of IRENA, mandatory contributions of Members are based on the scale of assessments of the United Nations, as determined by the Assembly;

*Recalling* that, at its third session, the Assembly decided to base the 2014 – 2015 biennium Work Programme and Budget of the Agency on the scale of assessments adopted by the United Nations General Assembly for the period 2013-2015, to be adjusted as appropriate based on the IRENA membership (see paragraph 127 of A/3/SR/1);

*Noting* that the Council at its eighth meeting considered the Report of the Director-General on the Indicative IRENA Scale of Contributions for 2015 as contained in document C/8/13 and agreed with the recommendations specified in paragraph 5 therein;

*Bearing in mind* that new Members join the Agency periodically pursuant to Article VI of the Statute of IRENA, and that the IRENA Scale of Contributions is to be adjusted to account for such new membership in accordance with Financial Regulations 6.2 to 6.4;

*Having considered* the Report of the Director-General on the Indicative IRENA Scale of Contributions for 2015 as contained in document A/5/15;

*Decides* to adopt the Indicative IRENA Scale of Contributions as the applicable Scale of Contributions for 2015.