**Speech**

by

**Mr. Adnan Z. Amin**

**Director-General**

**International Renewable Energy Agency**

for the

 **International Seminar**

**The New Age of Renewable Energy Diplomacy and Japan’s Course**

 4 April 2018 - Tokyo, Japan

Excellences

Ladies and Gentlemen,

I would like to first take the opportunity to thank the Minister of Foreign Affairs, His Excellency Mr. Taro Kono, the Japanese Government and the Sasakawa Peace Foundation for the invitation to be here today. I am very excited to visit Japan on this occasion, not least because – especially at this time of the year - there are few places in the world that are as attractive like this. But more importantly, every time I come here I am struck by this country’s remarkable ingenuity, culture of innovation and commitment to progress. This is the hallmark of Japan.

Just yesterday, I had the great privilege of visiting Fukushima and I was very pleased to be there as an act of personal solidarity with its people. The events in Fukushima were of such unimaginable ferocity and horror that I wanted to see for myself what had happened and I was delighted to see a vibrant society, a great culture, a beautiful environment, and nature that would delight anybody who would visit. So, I would encourage anybody who has any second thoughts about Fukushima to include it in their itinerary because it is a really spectacular place to visit.

In Fukushima, I also visited its Renewable Energy Institute which I found to be a truly world-class facility that is home to some of the country’s leading researchers in the field of renewable energy. Their work to develop new cutting-edge renewable energy technologies will increase the adoption of renewables in Japan and around the world. What is happening in the context of the Fukushima Plan for a New Energy Society, and more broadly in the framework of Japan’s new vision for renewable energy diplomacy, reflects the contribution that Japan can make to shape the global energy system of the future.

The historic events around Fukushima also have an important significance for me personally. When it happened, at the time, I had just taken up my new responsibility as Director-General of the International Renewable Energy Agency (IRENA) and the Agency was still in its infancy. It became clear that at the time to all of us who were involved in discussing how we would shift international policy on renewables that Fukushima would have a transformational effect on the world of energy, prompting many countries all over the world to broadly review their energy policies and to find new sustainable ways of economic growth, and this is indeed what has happened. Shortly after Fukushima, I visited Japan in one of my first missions abroad. I have visited Japan several times since then but this visit is of special significance.

So, this is an auspicious occasion after going to Fukushima to reflect on the extraordinary changes that have happened in the world of energy, and chief among them is the unprecedented growth of renewable energy beyond all expectations, as Tanaka-san said.

Since 2012, renewable energy has accounted for more than half of capacity additions in the global power sector. That is remarkable, in a few years. In 2017 alone, a record-breaking 167 GW of renewables capacity was added to the global power sector worldwide. At the heart of this remarkable growth is a simple fact: thanks to technological advances and supportive policies, the cost of renewables has fallen so rapidly, and so dramatically, that renewables are now the most cost-effective energy solution in more and more parts of the world. We believe, as was said by the Distinguished Parliamentary Vice-Minister, that these renewables are the new age of energy and the momentum for renewable energy in this moment is unstoppable.

The impressive pace of energy transformation is underpinned by a business case which has never been stronger. The average costs of utility-scale solar PV and onshore wind have fallen by 73% and 23%, respectively, since 2010, and they will decline further, still. In parallel, battery storage costs could fall around 60% over the coming decade, having already fallen about 70% in the previous seven years. Meanwhile, the advent of smart-grid technologies, digitalisation and big data are revolutionising the way we design and operate our energy systems. Future energy systems will be intelligent, flexible, and cost-effective.

 As this transformation takes place, many countries are raising their ambitions for renewables deployment and the integration of renewables in energy systems around the world is gathering pace rapidly. Germany, for instance, briefly covered around 100% of its electricity use with renewables for the first time in its history earlier this year. In April 2017, the United Kingdom went a full day without using coal to generate electricity for the first time since 1880s. What a remarkable symbol for a country that was the birthplace of the Industrial Revolution! And for the first time, last year, more UK electricity was produced by wind and solar sources than nuclear power stations.

Even the world’s major oil producing countries are taking bold steps to scale up renewables. Last week, it was announced that Saudi Arabia and the Japanese SoftBank are partnering to develop 200 GW of solar power. This would produce nearly three times the total existing or planned solar capacity of the United States. And, policy-makers in Saudi Arabia during a recent visit have shared with me their ambition that in the future they are still going to be an energy-exporting country but they want to export clean electricity generated by renewable energy. The United Arab Emirates, where IRENA is based, plans to cut carbon dioxide emissions by 70%, and generate 44% of its power from renewable energy by 2050. They are well underway to do that, if you look at some of the new solar prices that are coming from the auctions, we are seeing routinely just over 2 USD cents/kWh for solar PV in an oil producing country. The importance of these developments cannot be understated: even those countries whose economies have been largely dependent on oil see a key role for renewables in their future.

Beyond countries, local governments and cities are also committing to ambitious renewable energy targets. California, with an economy that would rank as the sixth largest in the world if it were considered a separate country, recently announced that it is on target to meet its 2030 renewable energy power generation target of 50% of total capacity, ten years ahead of schedule. Many cities, around the world, such as your very own city of Fukushima, are committed to 100% renewable energy. And, major global firms, such as Google, Apple and Facebook are increasingly relying on renewables to power their operations and meet their energy needs. There are at least six Japanese companies that have joined RE100, which is dedicated to procuring 100% renewables, and between them they are driving a new level of investment and awareness of what renewable energy will mean in many markets as a drive in the procurement process.

If we look back, another major development since 2011 is the adoption of the unprecedented global agreements — the 2030 Agenda for Sustainable Development and the Paris Agreement — that place renewable energy at the heart of global efforts to secure a prosperous and inclusive future. I vividly remember attending a meeting addressed by the former President of Iceland, President Grímsson who said that, in his view, the Paris Agreement was not a climate agreement, it was an energy agreement. Because the only way we can achieve the climate goals is after the transformation of our energy systems. Combined with the strong business case for renewables, these global frameworks will further strengthen the global momentum of renewable energy deployment even beyond what we are seeing today.

The urgency to tackle effectively climate change has never been more pressing than it is today. In Asia, where air pollution causes around five million premature deaths each year, the costs — both human and financial — of delayed action are especially stark. And we see in different parts of the world how climate change is increasing the risk of extreme weather events which cause devastation to infrastructure and loss to human lives. But with renewables we can help limit climate change. Our analysis has found that renewable energy, together with energy efficiency, can, under the right conditions and looking at the trajectory of investment we see today, achieve 90% of the emissions reductions needed by 2050 to meet the climate targets under the Paris Agreement. Accelerated renewable energy deployment could boost global GDP under this scenario by 0.8% in 2050 and create 26 million jobs up from around 10 million that we have today. So, the transition to a sustainable energy future is both technically feasible and it is now economically attractive. ‘Renewables today are both good for climate and good for growth.’ And it is rare in human history that you find that a response, a global response to a global crisis, that can also have a beneficial economic case attached to it. We can draw our economies out of serious climate change impacts.

Ladies and Gentlemen,

As the world moves decisively towards a smarter, more sustainable energy system that can underpin successful climate action whilst bringing positive socioeconomic benefits, Japan is well positioned to play a leading role in this global energy transformation.

Japanese companies, technologies and investors are already at the forefront. Last year, three of the four biggest renewable energy lenders in the world were Japanese. Japan is one of the top three cleantech innovation centres in the world. There is also significant potential for Japan to increase the share of renewables in its energy mix taking advantage of their rapidly falling costs. Enabling policies are essential for this to happen, including ambitious long-term targets, as well as power sector reform which is currently being implemented. One of the pleasures I have had while being here is to talk to many people in the press and in policy circles about this immense opportunity that Japan enjoys today but it is an opportunity that you can only capitalize if you exercise wisdom, courage and political leadership and everything I have seen in the last days indicates that this will exist.

Last January, I had the pleasure of welcoming Distinguished Foreign Minister of Japan Mr. Taro Kano at the IRENA Assembly where he expressed his determination to raise Japan’s renewable energy ambitions. In this regard, I would like to congratulate him on establishing the Advisory Panel of Experts on Climate Change which has identified renewable energy as key to Japan’s energy transition pathway and diplomacy efforts. IRENA stands ready to work closely with all stakeholders in Japan to take the Panel’s recommendations forward. Last night, I had the great pleasure to also interact not only with the Foreign Minister but with members of the Panel, and the sense of vision and opportunity that I felt there was truly inspiring.

I would like to elaborate in the final part of my remarks on how renewables are not only transforming the world of energy, but are fundamentally reshaping relations within and between countries with important implications for world peace and for society, which are both at the heart of the Sasakawa Peace Foundation mission, and more broadly key priorities for Japan’s government and people for decades to come.

With almost every country in the world endowed with one form of renewable energy potential or another, renewables enhance energy independence. It is no coincidence that many of the countries that have been at the forefront of renewable energy deployment, such as Chile and Morocco, are traditionally dependent on energy imports to a very large extent. Island states also have a lot to gain from switching to renewables in terms of increased energy security, lower energy costs, and increased resilience in the face of natural disasters. Ambassador Perina Sila from Samoa here knows how closely we have worked with the island states over the last years. Japan will considerably boost its energy security, in our view, by expanding domestic renewable energy supply. This is a fundamental finding that we have.

But this energy independence will not lead to greater isolation or unilateralist policies, but rather a new dynamic in relations between States, a form of what we consider positive interdependence. Variable renewables such as solar and wind require flexible and inter-related power systems capable of balancing supply and demand in real-time. In the European Union for example, growing cross-border trade in electricity is an embodiment of these new energy relationships where interconnections become vehicles for cooperation between countries. And at IRENA, we have been seeking to foster such an approach through our regional initiatives on Clean Energy Corridors in Africa and Central America which have been endorsed by Heads of States in both continents.

 Renewables are also a powerful vehicle of democratisation. The decentralization of energy supply can boost the autonomy of regions, reduce energy poverty and empower local communities. We are witnessing this in Japan now. Cities like Higashimatsushima that were affected by the 2011 earthquake and tsunami are rebuilding their communities following such a decentralised model.

By expanding energy access, off-grid renewable energy solutions are also providing new economic opportunities and creating jobs, lifting communities out of poverty, and improving health and education systems. In Southeast Asia alone, 65 million people lack energy access today. Renewables have the potential to support their socioeconomic development, and ensure that the region receives greater prosperity.

Japan is also strategically positioned to support and benefit from this development. More generally, through renewable energy diplomacy, Japanese international development policy has at its finger tips new tools and potential to improve development prospects of local populations, support nations in their national development plans consistent with the global Sustainable Development Goals agenda, and help tackle the root causes of the large-scale migration and refugee crises that we are seeing in different parts of the world. I would like to express my deep appreciation to the Government of Japan, to METI, Ministry of Foreign Affairs and the Ministry of Agriculture for the support they have provided us that has enabled us to take very critical capacity-building and training activities in developing countries around the world which are changing the future of those people.

By fostering energy security, democratisation and development and helping to limit climate change, the large scale shift to renewables has major geopolitical implications. Renewable energy diplomacy can move the world towards the geopolitics of abundance, peace and cooperation – away from the geopolitics of scarcity, coercion and conflict which characterised the energy diplomacy of the 20th century.

To better understand the dynamics of such a paradigm shift, IRENA launched last January the *Global Commission on the Geopolitics of Energy Transformation*. The Commission will provide recommendations for policy makers on how to best prepare for this new energy age and will deliver its report at IRENA’s Assembly next year. I can assure you that it is very highly anticipated what the recommendations of this report would be.

By becoming a strong advocate of renewable energy diplomacy, Japan can promote peace and cooperation between nations with new vigour and determination. IRENA presents an important international platform for such Japanese leadership, and we look forward to further deepening our fruitful engagement in this historical challenge before us.

In conclusion, let me say, over the last two days that I have been here, there have been a series of very intensive meetings with different experts, different institutions. What has become abundantly clear to me is that Japan enjoys a great technological advantage. It has exceptional manufacturing and innovation skills. We have seen this trend of innovation that is happening in Japanese R&D institutions and we believe that Japan is now poised to become a major player in global energy transformation, both by example at home but also by international cooperation overseas. We look forward to the leadership of Japan in this field and we encourage you to have bold leadership, bold vision and to take this nation to the next chapter it history.

Thank you very much.

\_