

10<sup>TH</sup> ANNIVERSARY  
THE GREAT  
EAST JAPAN  
EARTHQUAKE

*On this occasion, the Recipients of the Order of the Rising Sun express their sympathy to the people of Japan and our pledge to continue to pursue close US-Japan relations in the areas of our expertise for which we were honored.*

MARCH 11, 2021

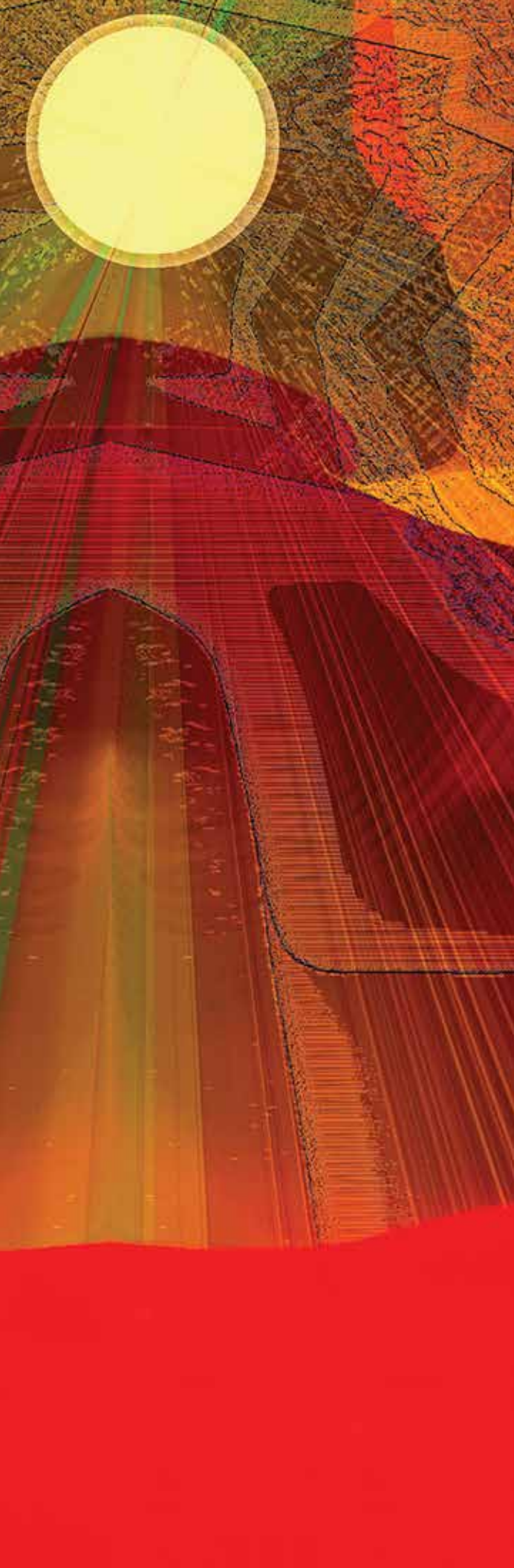




“*The American people are also proud and honored by the way they have been able to assist. They are proud to continue doing whatever you would like us to as you rebuild. And that’s because of a simple proposition. It is not because of government-to-government or military-to-military relations. It’s because of a genuine affection of the American people have for the Japanese people.*”

JOSEPH R. BIDEN  
August 23, 2011  
Sendai, Japan





*Mt. Fuji by Hokusai*

**DENNIS C. BLAIR**  
**72 FOREST AT DUKE DRIVE**  
**DURHAM, NC 27705**

March 1, 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan

Dear Prime Minister Suga,

Times of crisis reveal the true nature of relationships, both between individuals and between nations. Ten years ago, the triple blows of an earthquake, tsunami and nuclear radiation brought out the best in Japanese American relations.

When disaster struck American soldiers, sailors, airmen and Marines instinctively rushed to support Japanese comrades-in-arms helping their countrymen. US Navy ships patrolled off the coast where the tsunami had come ashore; US airmen flew relief supplies to the stricken region; US soldiers and Marines worked shoulder-to-shoulder with Ground Self Defense personnel in headquarters units and in the field. The discipline, training, initiative and friendship of the men and women in the uniforms of both Japan and the United States greatly relieved the suffering.

There were many difficult decisions large and small to make under enormous pressure. There were honest consultations, timely decisions and then both Americans and Japanese carried them out to the best of their abilities. This rapid and collegial decision-making was a tribute to the maturity of the Alliance and to the individual dedication of all involved.

All the wounds of 3/11 have not yet healed, even after ten years. Our hearts go out to the Japanese who lost family members and friends, those who still cannot return to their homes, and to the heroic workers at Fukushima. However, both Japanese and Americans can at the same time look back with pride to a crisis when our friendship and Alliance were put to the test, and when they responded with great courage and teamwork.

With greatest respect,

Dennis C. Blair  
Admiral, United States Navy (retired)  
Former Commander-in-Chief, US Pacific Command





23 February 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan


Dear Prime Minister Suga,

As we mark the tenth anniversary of the Great Tōhoku Earthquake and its resulting tsunami, I wish to honor the memory of those who lost their lives as a result of this extraordinary event and to commend those who responded to it and have guided Japan in its recovery. I also wish to acknowledge the dedication of those who responded to the accident at the Fukushima Daiichi Nuclear Power Plant, those who have helped stabilize and decontaminate the plant site and affected areas in the Fukushima Prefecture, and those who have undertaken the work of improving Japan's nuclear energy infrastructure.

I note two important areas of focus for Japan after the Fukushima Daiichi accident: its liability and compensation regime and regulatory reform. Japan's prompt and comprehensive implementation of measures to ensure compensation of victims affected by the accident provided valuable lessons to the international community, and I was pleased to work during my tenure at the OECD Nuclear Energy Agency with scholars and experts from the Japanese ministries in producing the publication *Japan's Compensation System for Nuclear Damage*, an important resource for other States. Japan's commitment to ratification of the Convention on Supplementary Compensation for Nuclear Damage enabled the convention to enter into force and has fostered continued progress toward a more global nuclear liability framework.

I also would like to acknowledge the work of Japan's Nuclear Regulation Authority (NRA), established in 2012, in carrying out reforms to enhance the effectiveness of Japan's oversight of its nuclear installations. As Chairman and Commissioner of the U.S. Nuclear Regulatory Commission (NRC) from 2014 to 2019, I had the privilege of working with Chairman Tanaka and then Chairman Fuketa in sharing the NRC's approaches to oversight of nuclear facilities and to strengthening risk-informed regulation. We were able to jointly provide a public forum in Tokyo on decommissioning from our two countries' perspectives during my visit to Japan in 2015, when I also had the privilege of meeting your Excellency. I am pleased that the NRC was able to host several teams from the NRA to learn from the experience of our inspectors and technical staff. We also worked with our Japanese colleagues in addressing the transparency of regulatory activities and the safety culture of the regulatory body. Japan's efforts to strengthen its regulatory system will have lasting importance to the integrity of its nuclear energy program.

Respectfully,



Stephen G. Burns  
Former Chairman and Commissioner  
U.S. Nuclear Regulatory Commission

3016 Tilden Street NW, Apt. 201  
Washington, DC 20008



**KEVIN D. CROWLEY, PH.D.**

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February 25, 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
1-6-1 Nagata-cho, Chiyoda-ku  
Tokyo 100-8968  
JAPAN

Dear Prime Minister Suga:

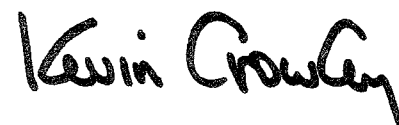
I write to offer my deep condolences and solidarity on the 10<sup>th</sup> anniversary of the Great Tōhoku Earthquake and tsunami and Fukushima Daiichi nuclear accident. The Japanese people have demonstrated great determination and resilience in overcoming these humanitarian and economic disasters, and the Japanese government has made notable progress since the accident in reforming and strengthening nuclear safety and security. These developments are a credit to Japan.

In 2012 the U.S. National Academies of Sciences, Engineering, and Medicine were asked by the United States Congress to examine the causes of the Fukushima nuclear accident and identify lessons learned for improving the safety and security of nuclear plants in the United States. The National Academies appointed me to direct this examination and seek the cooperation of Japan, as explicitly directed by the U.S. Congress, to carry out our work. The Japanese government, scientific community, and nuclear industry responded generously to our requests for cooperation by providing information about the accident and logistical support for our fact-finding meetings and Japanese nuclear plant visits. This cooperation was essential to the successful completion of our study.

Our examination produced two technical reports that have received worldwide distribution, including in Japan. These reports identify numerous lessons that should be learned from the accident, two of which in my judgment have continuing relevance to the nuclear industry in Japan: (1) the importance of incorporating modern risk assessment practices in nuclear safety operations and regulations; and (2) the importance of establishing and maintaining a strong nuclear safety culture.

Cooperation between Japan and the United States on the Fukushima nuclear accident examination illustrates how our scientific and technical communities can work together to address common challenges and promote a more peaceful and prosperous world.

Most respectfully yours,



Senior Board Director (Retired)  
Nuclear and Radiation Studies Board  
National Academies of Sciences, Engineering, and Medicine





**Jerome I. Friedman**  
Institute Professor and Professor of Physics Emeritus

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Fax 617-253-4360  
Email [jif@mit.edu](mailto:jif@mit.edu)

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan

Dear Prime Minister Suga,

On the 10<sup>th</sup> anniversary of the disastrous earthquake and tsunami that struck Japan on March 11, 2011, I want to send my deeply felt condolences for the death and destruction suffered by the Japanese people. Japan has shown remarkable fortitude, strength and resilience in rebuilding after this tragedy.

Japan, as one of the strong and thriving democracies of the world, is known for its capacity to envision and accomplish important goals. I have seen this personally as someone who had the honor and privilege of assisting Mr. Koji Omi in founding and developing both the Okinawa Institute of Science and Technology and the STS Forum in Kyoto. The Okinawa Institute of science and technology, which is an international university that is still growing, has already been internationally cited for producing world-class research that is enhancing human knowledge. The STS forum is acknowledged worldwide as having a strong influence in promoting the application of science and technology for the benefit of humankind. Both of these exist because of the generous support of the Japanese Government. I consider them to be Japan's gifts to the world; and the Japanese people deserve our gratitude for their generosity and international spirit.

Respectfully,



Jerome I. Friedman  
Institute Professor and Professor of Physics Emeritus  
Massachusetts Institute of Technology







February 26, 2021

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His Excellency Suga Yoshihide  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku  
Tokyo 100-0014 Japan

Dear Prime Minister Suga-sensei:

I am joining a number of my colleagues—all of whom are recipients of the Order of the Rising Sun—who want to share their perspectives on the 10<sup>th</sup> anniversary of the Great Tohoku Earthquake and the subsequent accident at the Fukushima Daiichi nuclear power plant. All of us share a deep regard and affection for Japan and the Japanese people. And all of us, in varying ways, have tried to help Japan restore operation of its nuclear power plants in a safe, reliable and responsible manner.

I strongly support Japan's efforts to restore its nuclear power industry. As I argued several years back during a METI review of Japan's energy masterplan, Japan needs nuclear-generated electricity as part of its base energy formula. Renewable energy sources are good but cannot substitute for reliable base-load energy production.

The purpose of my letter today, however, is to discuss the larger geopolitical context of Japan's role as a responsible nuclear energy country. As everyone knows, a commercial nuclear energy industry is the foundation for every nation's nuclear weapons program. The cornerstone of the global non-proliferation program rests on independent inspections of commercial nuclear facilities. Almost every country in the world is a signatory to the Non-Proliferation Treaty. It was not a surprise that North Korea first renounced its commitment to the NPT Treaty before it publicly disclosed its nuclear weapons program.

The United States joined with allies in Europe to promote a strong non-proliferation program, and at the time we were the leaders in commercial nuclear energy. Since that time, Europe has chosen to largely abandon commercial nuclear power. Unfortunately, the United States has lost much of the industrial base needed for a robust commercial nuclear power industry, and remains deeply ambivalent about investing in new nuclear power to replace aging reactors. The center of gravity in promoting nuclear power has shifted to China and Russia. While both countries are signatories to the Non-Proliferation Treaty, neither can be considered champions of non-proliferation.

Japan has played a crucial role for the entire international community with its steadfast support for the NPT treaty. Japan has eschewed nuclear weapons, and

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because of that, Japan's voice on nuclear non-proliferation is inherently strong. But Japan's voice is strong primarily because Japan was also a competent nuclear power plant manufacturer and plant operator. The global community of nations needs a strong leader like Japan to sustain this important treaty regime, to minimize the threat we all face. If Europe abandon's commercial nuclear power, and if the United States and Japan remain ambivalent about commercial nuclear power, the leadership needed to sustain the non-proliferation regime will erode, making the world far more dangerous for everyone.

I do realize that many Japanese citizens remain anxious about nuclear power plants, and lack the confidence to let nuclear power again blossom in Japan. We need to help Japanese citizens understand that commercial nuclear power is not only necessary for Japan's energy strategy, but it is also vital that Japan continue its leadership role in the global regime of non-proliferation. That leadership role depends on Japan becoming again a confident supplier and operator of nuclear power plants.

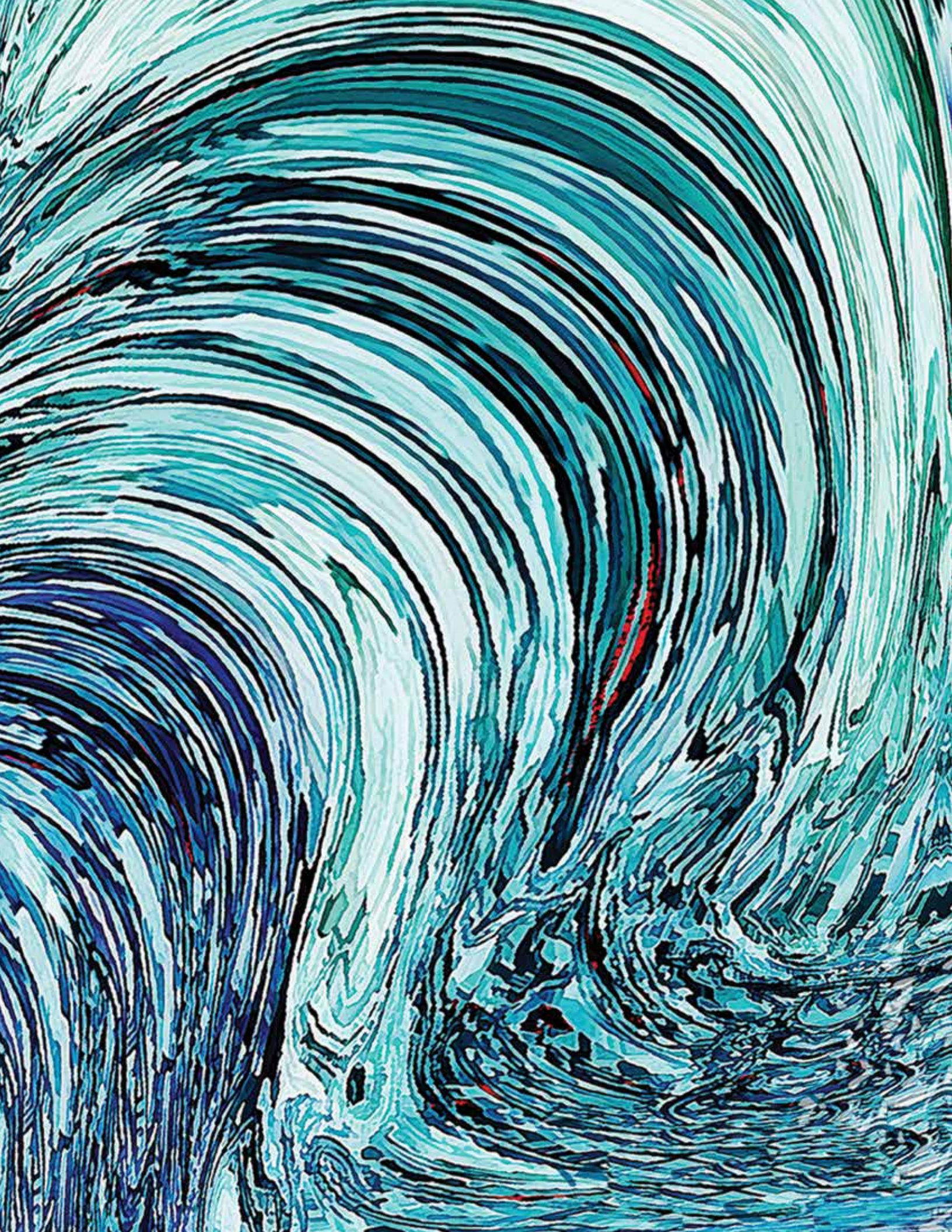
Throughout the past five years, Japan has become a respected and needed leader of the international community in Asia. Japan needs to lead again on safe commercial nuclear power production and on sustaining the NPT treaty and the enforcement agency, the International Atomic Energy Agency.

Thank you for reading my letter. I have admired your leadership for many years. You have my strongest, best wishes for success.

Sincerely

John J. Hamre  
President, CEO and Langone Chair in  
American Leadership





HARVARD UNIVERSITY  
JOHN F. KENNEDY SCHOOL OF GOVERNMENT  
Robert and Renée Belfer Center for Science and International Affairs



John P. Holdren Ph.D.  
*Teresa and John Heinz Professor of Environmental Policy and  
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25 February 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan

Your Excellency:

It was my great honor to receive from the Government of Japan, in 2019, the Order of the Rising Sun, Gold and Silver Star, for “contributions to strengthening the relationship between Japan and the United States of America in science and technology”. In my role as the Science Advisor to President Obama, I served as the U.S. Co-Chair of the U.S.-Japan Joint High-Level Committee on Science and Technology Cooperation from 2009 until 2017, but I understand that part of the motivation for the award of the Order of the Rising Sun was my White House role in helping to coordinate the U.S. government’s assistance to Japan in dealing with the aftermath of the 11 March 2011 disaster at the Fukushima-Daichi nuclear-reactor complex resulting from the earthquake and tsunami of that date.

I was one of the dozen Obama Administration officials gathered in the White House Situation Room on that Friday afternoon, connected by video link with U.S. Ambassador Roos in Tokyo to shape initial U.S. assistance to Japan. I became the co-convener, with Secretary of Energy Steven Chu, of an ad hoc panel of leading U.S. reactor-safety experts that continuously in the weeks following the accident to formulate recommendations for the Japanese leaders of the response. In those weeks I also met frequently with Japanese Ambassador to the United States Ichiro Fujisaki, and I regularly briefed President Obama ahead of his conversations with Prime Minister Kan. With Ambassador Fujisaki, I toured the Fukushima-Daichi complex in July 2011, representing President Obama, and met with members of the recovery team.

It was very helpful to me in these interactions that I had traveled to Japan often in the past and that I had taken part, in those prior years, in research collaborations with top Japanese nuclear experts who ended up having roles in the Fukushima response. One of the many lessons of the

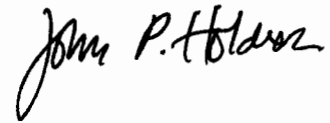


Fukushima accident was the reminder that international scientific collaborations can have such unexpected benefits later.

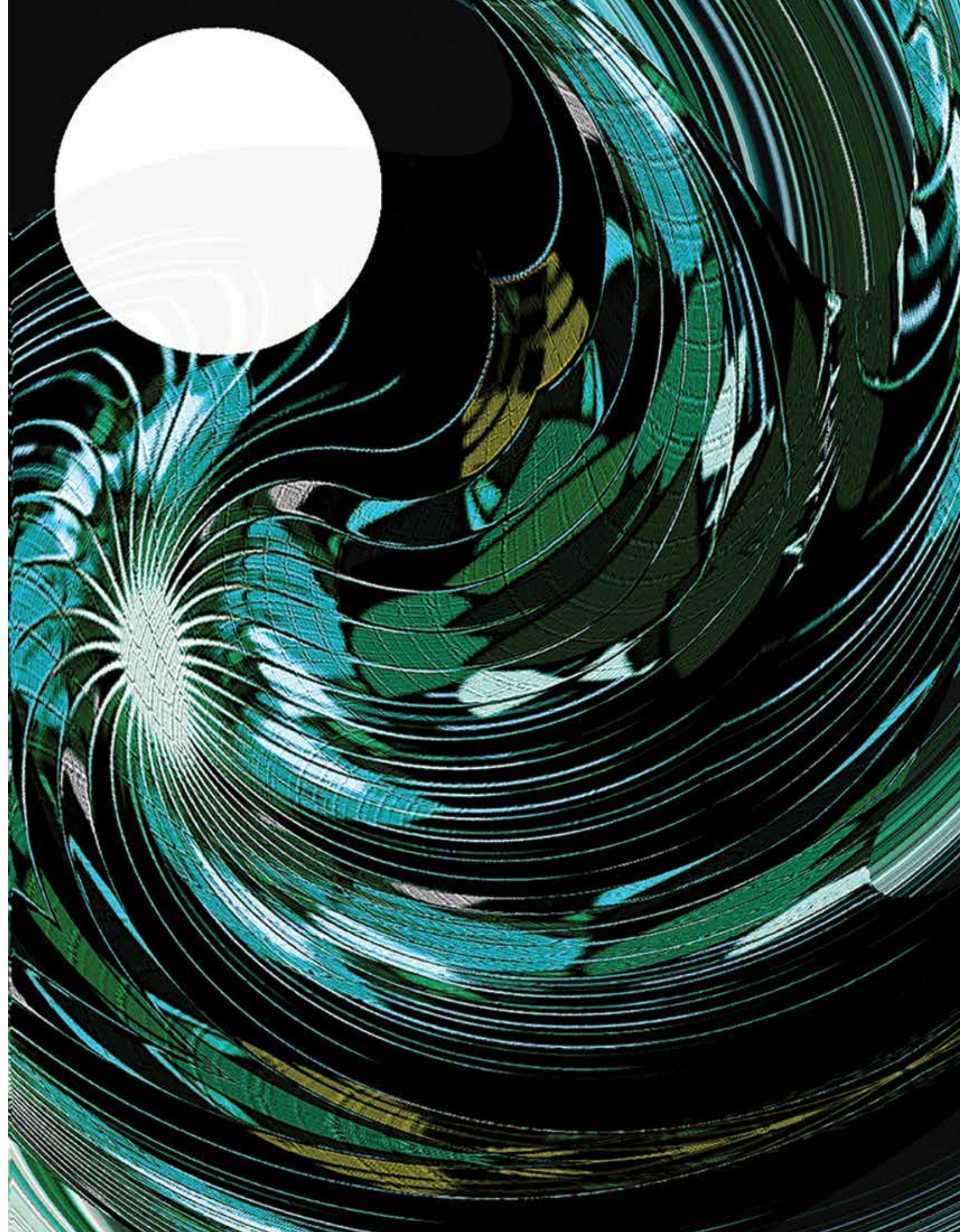
The close collaboration of U.S. and Japanese officials, scientists, and armed forces in responding to the Fukushima tragedy was also a powerful illustration of the strength of the U.S.-Japan relationship. And, while the Fukushima event was a setback for nuclear energy in Japan in the short- and medium-term, the lessons learned about how to reduce the chances of such disasters will contribute to increased safety of nuclear reactors in the future, not only in Japan but also in the United States and around the world.

I look forward to continuing science and technology collaboration with my many esteemed Japanese colleagues in the years ahead.

Respectfully,



In addition to letterhead affiliation: Professor of Environmental Science and Policy, Department of Earth and Planetary Sciences, and Affiliated Professor, John A. Paulson School of Engineering and Applied Science, Harvard University; formerly the Science Advisor to President Obama and Senate-confirmed Director of the White House Office of Science and Technology Policy (January 2009 – January 2017)







## WASHINGTON POLICY AND ANALYSIS

William F. Martin  
Chairman

March 1, 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo, 100-0014  
Japan

Dear Prime Minister Suga:

It is an honor to share with you some perspectives—both personal and professional—concerning the events of March 11, 2011, and its aftermath. I was deeply shocked and horrified to see the scenes of destruction and despair televised ten years ago. Every year for the past thirty years I visited the Tohoku region and enjoyed its magnificent beauty, the mountains, the coastline and the Matsushima islands. Familiar places seemed unrecognizable in the wake of the tsunami.

I also watched in horror the events unfolding at Fukushima Daiichi and sympathized with the challenges ahead because I was the United States Deputy Secretary of Energy at the time of the Chernobyl accident. While hoping for the best I feared the worst for the TEPCO workers, the community, the region and Japan.

At the time my son, Christopher Flynn Martin, was a doctoral candidate at Kyoto University. Like Japanese parents across the country, I feared for the health of my child even though he was hundreds of miles away from the accident.



My wife, Paule Audebert, and I were deeply honored that I was presented the Order of the Rising Sun by Emperor Akihito at the Spring Conferment 2018 in Tokyo. It is the honor of my life and a privilege to be recognized as a citizen of Japan's greatest friend, the United States. You, as Cabinet Secretary, presented my award just before we met the Emperor. I knew you as the "Reiwa" master and I am so pleased that today you stand as Japan's Prime Minister.

At the time of the accident, I was Chairman of the Department of Energy's Nuclear Energy Advisory Committee. Like other expert groups in the US government, universities and NGOs, we set out to try to understand what happened and how to prevent such an event from happening again. "Lessons learned" from Japan are being applied systematically to nuclear safety domestically, in the United States and around the world.

For ten years Americans and Japanese scientists and engineers have worked diligently to restore Fukushima. Experts from the Department of Energy, National Academy of Sciences, US national laboratories and the Nuclear Regulatory Commission have worked side by side with the Japanese government and industry to restore and improve safety. There are four specific areas of progress:

- First is the decommissioning of the Fukushima Daiichi and restoration of the surrounding area to allow residents to return. On the Japanese side, we wish to recognize the outstanding job done by Mr. Naomi Hirose, Mr. Makoto Yagi, Mr. Akihisa Mizuno, and Mr. Makoto Kaiwa. Notably operators onsite have provided detailed and transparent progress reports during the decommissioning of the plant. Special recognition goes to the Department of Energy and MEXT, whose officials and national laboratories have contributed solutions to complex technical challenges.
- Second, American experts, especially those of the Nuclear Regulatory Commission have worked with the Nuclear Regulatory Authority to craft guidelines to ensure safety at existing and future nuclear power plants.

- Third, American and Japanese companies are sharing experiences and expectations in operating nuclear power plants. The Nuclear Energy Institute (NEI) under the leadership of Maria Korsnick, and before her Marvin Fertel, has established close ties with the Japanese utility companies to improve safety. We note the close relationship between NEI and the newly formed Japan Atomic Energy Association (ATENA) as an example of finding new ways to cooperate and ensure safety of nuclear power programs in both of our countries.
- Finally, the Japanese and US governments extended the US-Japan Nuclear Cooperation Agreement, first agreed in 1988 thereby committing each nation to continue efforts to contribute to global non-proliferation and the safe use of nuclear power.

#### **Challenges: Clean Energy Diversity for National Security and Climate Solutions**

Despite the decade-long effort, the energy sufficiency of Japan post-Fukushima is only 9%. That is dangerous for Japanese national security. Perhaps Japan might consider an energy self-sufficiency goal of 38%, which is about the current level of Japan's self-sufficiency in agriculture. This goal can be achieved through greater electrification of the transportation system with electricity being produced by renewables, nuclear power, coal, carbon capture and recycling, hydrogen and LNG imports from the United States. Mottainai can remain a key element of the strategy.

Nuclear power is essential as we tackle twin challenges: climate change and energy security. The United States and Japan can lead the way to a safer nuclear energy future. Restarting and extending the life of existing reactors to 60 years and evaluating options for new reactor construction, including conventional and smaller modular reactors, are essential priorities for meeting these goals.

Completion of the Rokkasho reprocessing plant will allow for recycling of nuclear fuels and more efficient waste disposal. Concurrently, Japan should continue efforts to lead international non-proliferation efforts to ensure atoms for peace globally as nuclear energy is adopted by more nations.



**Recommendation: Creation of a Ministerial Group on Interfutures**

Both nations are now committed to the decarbonization of our economies. Climate strategies should consider the environmental, economic, energy security and national security implications of decarbonization. Similar to Japan's efforts in the late 1970s at the Organization for Economic Cooperation and Development, I recommended the creation of a US-Japan Interfutures Group at the Ministerial level to look at these complex challenges of decarbonization and create a sustainable roadmap to the year 2050.

As part of this effort the United States and Japan should launch an electricity for humanity project. New markets for energy will generate opportunities for our industries and make for a cleaner, safer world.

We should also work together on strategies to replace coal with US LNG in the Asia Pacific region to lower global CO2 levels. The greatest industrial need of the next fifty years will be to provide the planet with cleanly generated electricity. It will be the largest infrastructure project in world history. We must win these contests or sadly let China control global energy infrastructure development to our economic and national security peril.

Each country will have more impact and success if Japan and the United States take this journey together and share our experiences with democratic nations around the world.

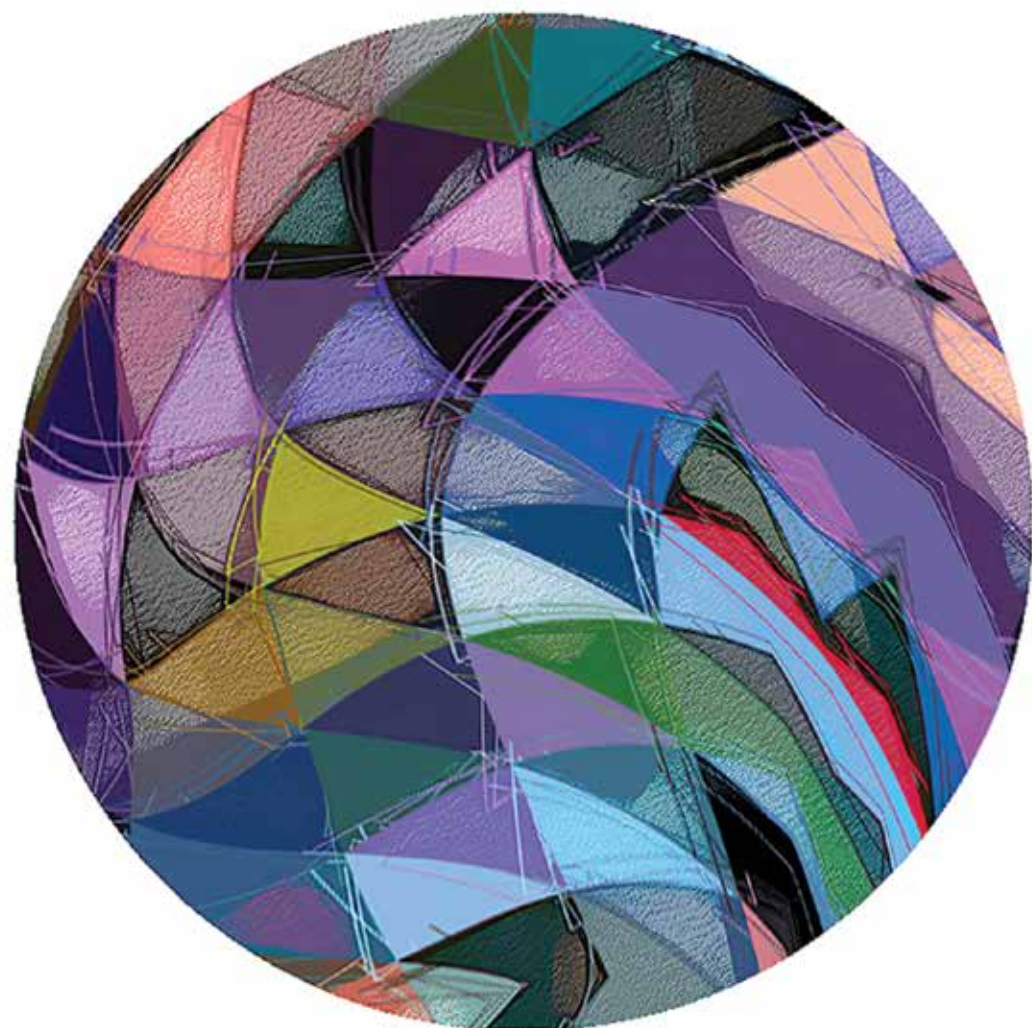
Respectfully,



William F. Martin







**Richard A. Meserve**  
President Emeritus  
rmeserve@carnegiescience.edu

February 26, 2021

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His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan

Dear Prime Minister Suga:

It is now ten years since the accident at the Fukushima Daiichi nuclear plant. I am writing to provide my perspective on the actions taken by Japan to improve nuclear safety over the past decade. I will also, perhaps somewhat presumptuously, make some suggestions for the future role of nuclear power in Japan.

I.

As you are aware, the accident ultimately led to the shutdown of all the nuclear plants in Japan. Some plants have restarted, but only after significant upgrades and comprehensive safety reviews. I have visited many of the plants and have been very impressed with the extensive safety-related construction and the large investments in safety equipment (pumps, portable generators, etc.). These efforts have been coupled with deep investigations to assure the understanding of external events that could threaten plant operations (e.g., tsunamis, earthquakes, typhoons, volcanic eruptions) and the establishment of the means to protect against them or to mitigate their effects. The operating plants are far safer today than they were a decade ago.

I have also been pleased to observe the creation or strengthening of organizations to ensure nuclear safety:

- **The Nuclear Regulation Authority (NRA)**, under the able leadership of Chairman Tanaka and now Chairman Fuketa, is undertaking comprehensive reviews before allowing reactor operations to commence, has imposed many new regulatory requirements, and has been rigorous and thoughtful in their application.

Carnegie Institution  
of Washington

1530 P Street NW  
Washington, DC 20005

202 387 6400 Phone  
202 387 8092 Fax



The Japanese public benefits from a serious regulator that is conscientiously working for their protection. (I serve as an international adviser to the NRA.)

- The **Nuclear Risk Research Center** (NRRC) is building the capacity to undertake modern probabilistic risk assessments – a tool that enables the deep evaluation of possible vulnerabilities and the means to address them. This will enhance the ability of the NRA and the utilities to ensure safe operations. (I serve as an executive adviser to the NRRC.)

- The **Japan Nuclear Safety Institute** (JANSI), which is built on the model of the Institute for Nuclear Operations in the United States, reflects the commitment of the nuclear industry to police itself. It reflects the industry's awareness that a failure to ensure safety at one plant could have devastating effects on the whole industry. JANSI has been strengthened in the aftermath of the Fukushima accident and has established a close connection with INPO so that it may benefit from INPO's decades of experience.

- The nuclear industry has established the **Atomic Energy Association** (ATENA) to develop safety-related guidelines and to coordinate with the NRA on measures to improve safety. As I learned during my tenure as Chairman of the U.S. Nuclear Regulatory Commission, engagement with the industry can result in a win-win situation – the achievement of enhanced safety in ways that minimize cost and disruption to the industry.

The creation and/or revitalization of these organizations should provide confidence that the many measures to improve safety that have already been undertaken will be enhanced in the years ahead.

Finally, and perhaps most importantly, I am impressed by the deep commitment to safety by all those involved in the nuclear enterprise. The changes I have mentioned are not advertising or public relations, but are serious efforts to

ensure that nuclear power can continue to contribute to the economic and national security of the Japanese people. This commitment is the essential foundation for success.

## II.

The portion of Japan's electrical energy that is provided by nuclear power has declined from about 30% in 2010 to under 8% in 2020. Although existing energy policy envisions that about 22% of Japan's electricity should be provided by nuclear power, the policy is now being reconsidered. In my view, Japan is at a cross-roads in determining the role that nuclear power should play in the years ahead.

The case for nuclear power as a meaningful component of Japan's energy system is straight forward and compelling. Climate change presents an existential threat and it requires that every country commit to the significant decarbonization of its economy. This no doubt will mean an increased dependence on carbon-free electricity in order to facilitate the elimination or at least reduction of greenhouse gas emissions in transportation, heating and cooling, and industrial operations. In my view, the new energy policy should include a major commitment to renewables. But the principal renewables, wind and solar, are intermittent and a modern economy is dependent on continuous power. Nuclear power is a wise choice to backup renewables because it provides carbon-free generation that is reliable, has known costs, and is available. A variety of studies, including those by the Intergovernmental Panel on Climate Change, find that an energy system including both renewables and nuclear power can provide the lowest cost and most reliable path to the necessary reduction of emissions.

I recognize that the general public in Japan understandably remains deeply skeptical of nuclear power and I appreciate that public opinion presents an important barrier to a major commitment to it. Establishing trust is not an easy task, particularly since building public confidence can take a long time and can be easily undermined by any failure to be completely honest. I urge all those involved in the important decisions involving Japan's energy strategy to confront the costs and benefits of nuclear power candidly and to talk openly about them with the public. I



note that many organizations in the United States that once were dedicated opponents of nuclear power now recognize and accept its important role in confronting climate change. There even is a political consensus involving both Republicans and Democrats in support of nuclear power at a time when the parties can agree on little else. Perhaps with your leadership the recognition of nuclear power's important role can also occur in Japan.

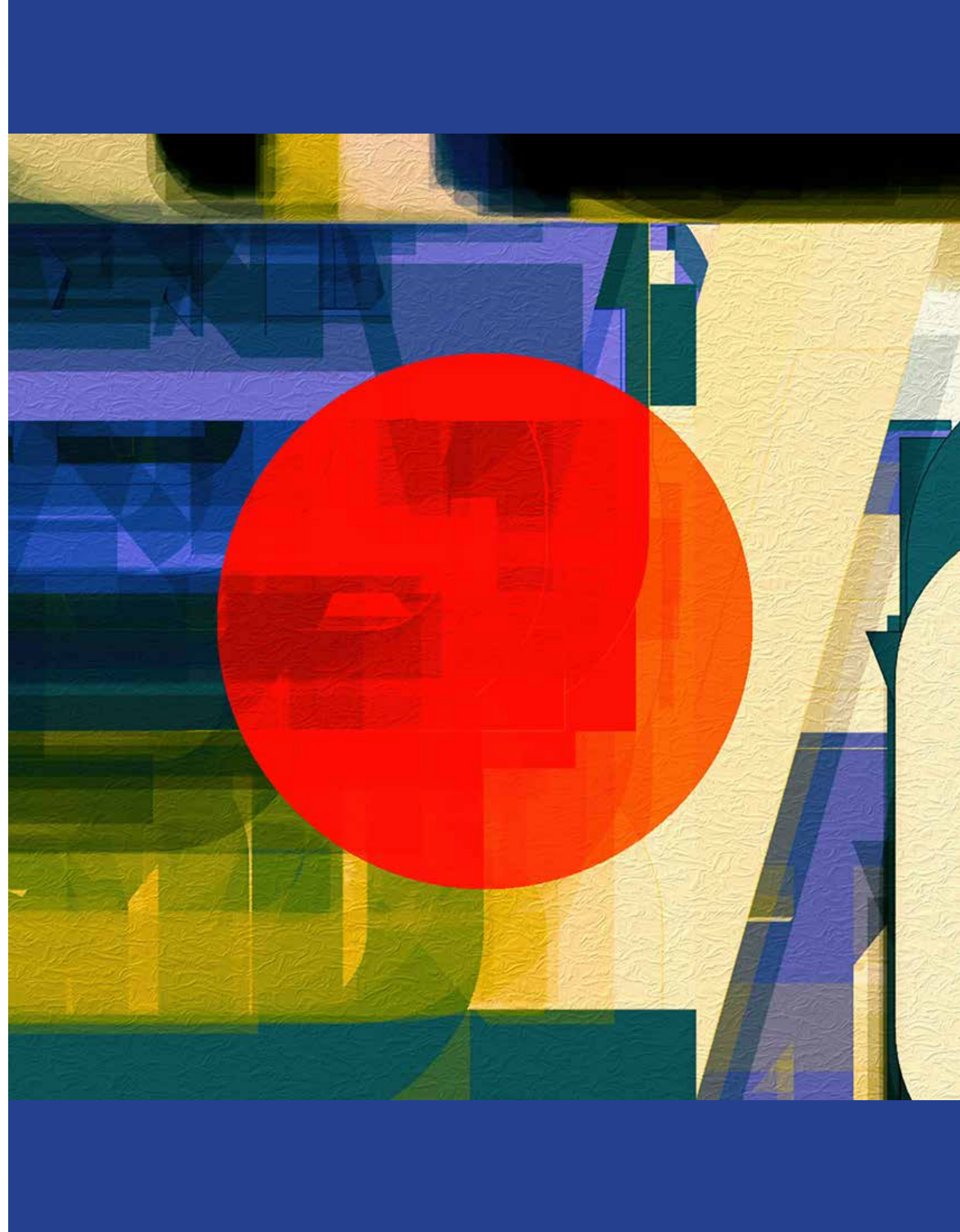
\* \* \* \*

The brave people of Japan have confronted the terrible consequences of the events of March 11, 2011, and are overcoming them. I have had the good fortune to visit Japan many times over the past decade and I am deeply impressed by all that has been done to improve nuclear safety. Japan should build on this foundation in meeting its commitment to reduce carbon emissions.

Respectfully yours,



Richard A. Meserve





1 March 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku, Tokyo 100-0014  
Japan



Dear Prime Minister Suga:

First, I congratulate you on being named Prime Minister of Japan. I recall fondly our meeting in Tokyo and that reinforces my thinking that Japan's governance and the U.S.-Japan relationship are in good hands. Furthermore, with the Biden Administration firmly in place as well, I anticipate great progress in the coming months and years.

Writing at the tenth anniversary of the Fukushima disaster is a bittersweet activity. The devastation caused by the tsunami was matched by the Japanese people's strong response and the cooperation between our countries. I was very happy to be part of the American government's response to assist an important friend and ally in this effort. My colleagues and I remain committed to our friendship and the continuing recovery of your energy sector.

As U.S. Energy Secretary during 2013-2017, I was impressed by Japan's commitment to addressing the societal impacts, rebuilding its economy, and addressing its clean energy future. I must emphasize in particular how impressed I was with the Japanese workforce advancing the Fukushima cleanup. I visited the site in full protective gear and could only be impressed with the critical work being carried out under very difficult conditions. Your people at the site were nothing short of heroes.

Looking forward, I see Japan and the U.S. working together towards a low-carbon energy future. Japan's commitment to a net-zero greenhouse gas by mid-century will, I believe, be matched by the U.S. A key contribution to our mutual success will be advancing clean energy innovation in multiple economic sectors. I hope that our countries will join hands at COP-26 in Glasgow to rejuvenate Mission Innovation as the central component of a global climate change risk mitigation strategy.

I am honored to be listed among the awardees of the Grand Cordon of the Order of the Rising Sun mostly because of what we can accomplish together going forward. My colleagues and I are ready to advance simultaneously low carbon energy (including





MIT Energy Initiative

advanced nuclear technologies), energy security and social justice with our Japanese friends in order to meet global needs for our collective future.

With best regards,

A handwritten signature in black ink, appearing to read "Ernest J. Moniz".

Ernest J. Moniz

Cecil and Ida Green Professor of Physics and Engineering Systems, Emeritus  
Founding Director, MIT Energy Initiative  
Co-chair and CEO, Nuclear Threat Initiative  
CEO and President, Energy Futures Initiative  
13<sup>th</sup> U.S. Secretary of Energy







**HARVARD UNIVERSITY**

**HARVARD KENNEDY SCHOOL**

Robert and Renée Belfer Center for Science and International Affairs



**Daniel B. Poneman**

Senior Fellow

Email: [daniel\\_poneman@hks.harvard.edu](mailto:daniel_poneman@hks.harvard.edu)

March 2, 2021

His Excellency Yoshihide Suga  
Prime Minister of Japan  
2-3-1 Nagatacho, Chiyoda-ku,  
Tokyo 100-0014 Japan

Dear Prime Minister Suga:

I am honored to join with my fellow recipients of the Order of the Rising Sun to write to you on the occasion of the tenth anniversary of the Great East Japan Earthquake, tsunami, and Fukushima Nuclear Power Station accident. My thoughts and prayers remain with the Japanese people, who have exemplified the deep courage and force of their national character in how they responded to and recovered from this crisis.

Over the years I have visited Japan countless times, and I will forever cherish the personal and professional bonds forged with so many friends and colleagues there.

In particular, I remember the honor I had of meeting you in your role as Chief Cabinet Secretary when I last visited Tokyo in my capacity as Deputy Secretary of Energy. Our meeting underlined to me the importance and urgency of Japan and the United States working closely together to counter the geopolitical challenges we face both individually and as allies, as well as to advance our shared energy security, national security, and nonproliferation norms.

Japan is a valued friend and ally of the United States. Your pain is our pain, and your loss is our loss. The tragic events of March 11, 2011, are seared into the memories of the American people, and we continue to support Japan's efforts to recover, ten years after this unprecedented disaster.

I will never forget the first phone call I received from Japan that March 11. Immediately, I contacted my colleagues at the White House and in the State Department to ensure that we all responded immediately to the situation. The early hours of the crisis were steeped in confusion, and it was only by virtue of the strong, long-standing relationships with Japanese colleagues that we were able through phone calls and emails to keep up with the rapidly evolving situation in Fukushima.



From the first moments of the crisis, our efforts in the U.S. Government were guided by a simple precept: Japan is a trusted friend and ally and the Japanese people are strongly tied by bonds of shared values and deep personal attachments, so we *must* do whatever we can to provide assistance in Japan's hour of need. In that spirit, as the Deputy Secretary of Energy at that time I was personally in touch with Japanese colleagues during those first days and weeks when we were responding to the disaster. In the intervening months and years, officials from the Department of Energy, the Nuclear Regulatory Commission, our national laboratories, other agencies, and our private sector continued to maintain close contact with Japanese colleagues and counterparts to provide expertise in a variety of areas. As is often the case when partners work through a crisis, the Fukushima experience brought us even closer, and has made our relationship stronger going forward.

Out of this crisis many of us worked closely with our Japanese counterparts to establish the U.S.-Japan Bilateral Commission on Civil Nuclear Cooperation, a joint initiative that President Obama and then-Prime Minister Noda announced in Washington in April 2012. The Commission did two important things. First, it elevated the regular bilateral dialogue on nuclear matters to the Deputy Secretary and Deputy Minister level, so the issues could be dealt with strategically across all ministries and departments. Second, the Commission expanded our bilateral nuclear agenda from the traditional areas of peaceful nuclear cooperation and nonproliferation, to embrace the critical issues of nuclear safety, emergency response, and environmental management.

I was honored to launch the Bilateral Commission with my Japanese Co-Chair, Deputy Foreign Minister Bessho, and later with Deputy Foreign Minister Sugiyama. On my last official trip to Japan as Deputy Secretary, in June 2014, I visited Fukushima and was deeply impressed by the courage and dedication of the many Japanese engineers, technicians, and workers who were deeply engaged in the restoration and clean-up of the reactor site.

The Bilateral Commission has provided a robust mechanism for strengthening our nuclear cooperation following the Fukushima accident, and it is my hope that you and President Biden will sustain and strengthen its work. As I argued in my book, *Double Jeopardy: Combating Nuclear Terror and Climate Change*, humanity faces two existential threats – the prospects of nuclear annihilation and catastrophic climate change – and, working together, the United States and Japan can do a great deal to address both of these challenges. I applaud your commitment to decarbonize Japan's energy economy and note the important role that nuclear energy can play in that effort. Indeed, as global leaders in the nuclear arena, Japan and the United States have important work to advance together, including not only in the restart of the existing fleet but also in the development and deployment of the next generation of advanced nuclear technologies that are commercially attractive and inherently safe.

Japan has long stood as a leader in the community of nations that support nuclear non-proliferation, another area in which our two nations have long cooperated and requires continued vigilance in the face of hostile actors and the dangers of spreading weapons technology.

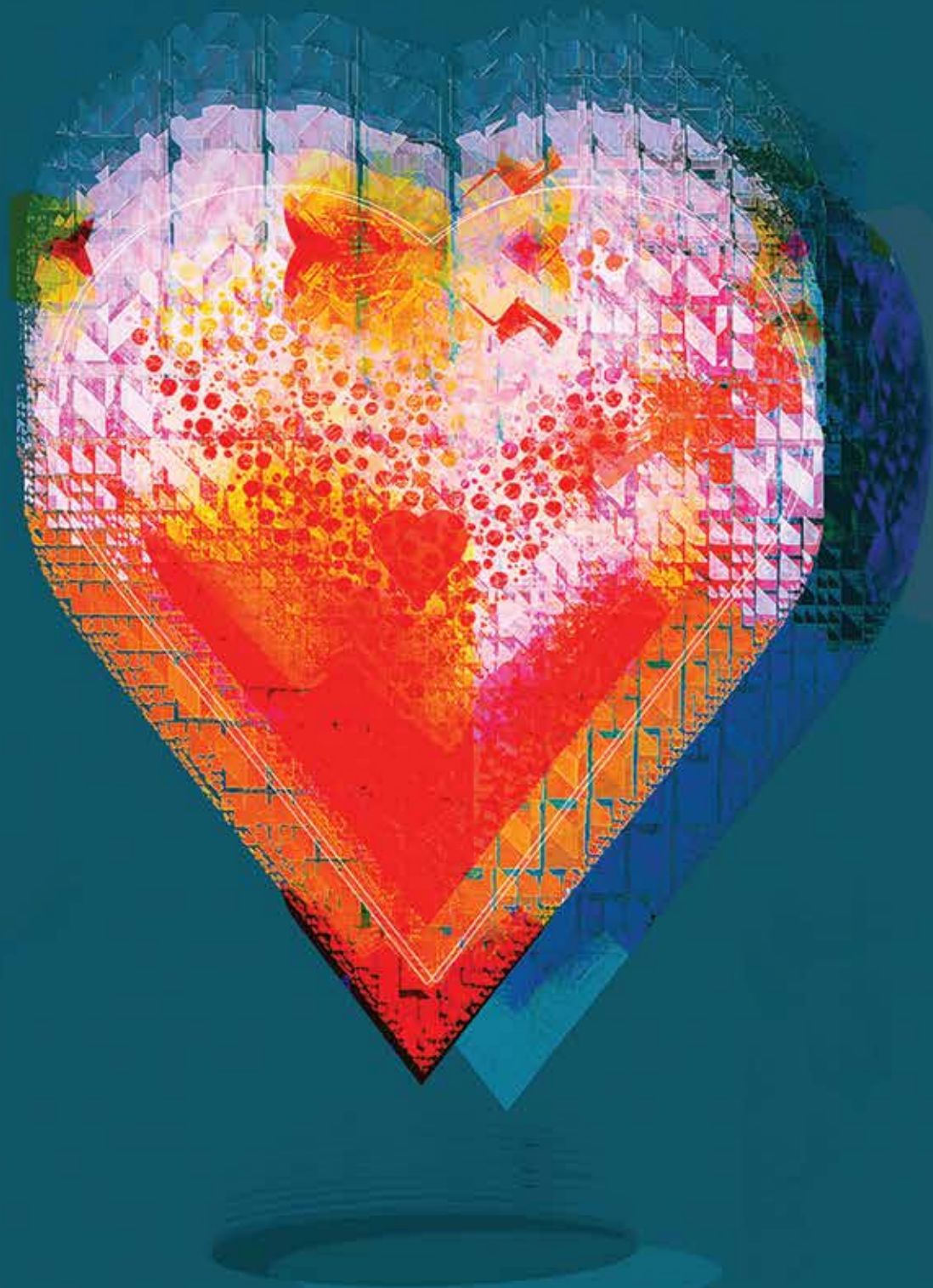
Prime Minister Suga, the relationship between the United States and Japan remains a vital cornerstone of peace and security throughout the world. We have a robust and unshakable partnership, and we stand firmly with the people of Japan. Our thoughts and prayers go out to the people of Japan on the 10<sup>th</sup> anniversary of the Great East Japan Earthquake, tsunami, and Fukushima Nuclear Power Station accident. We have all learned from these searing events, and as a result I know that we will build a brighter and better future for our people in the years to come.

Respectfully yours,



Daniel B. Poneman  
Senior Fellow  
Former Deputy Secretary of Energy





**Dr. Fatih Birol**  
Executive Director

IEA/EXD(2021)33

Paris, 26 February 2021

The Honourable  
Mr. Yoshihide Suga  
Prime Minister of Japan

Excellency,

As we commemorate the tenth anniversary of the tragic accident that took place in Fukushima following the Great East Japan Earthquake, I wish to convey to the Japanese people, on behalf of the International Energy Agency (IEA), my deepest respect and solidarity on this solemn occasion.

The Government of Japan is to be commended for its skilful and compassionate handling of events during that tragic period, and for managing to minimise further suffering by maintaining energy supplies despite the extent of damage incurred. The way your officials responded with the implementation of massive energy conservation efforts, emergency procurement of LNG, and exploitation of other power generating assets, saved many lives and reduced further disruption. Japan is also to be commended for the work it has undertaken in the years that followed the accident to improve nuclear safety, including by establishing new nuclear safety standards and introducing an independent nuclear regulatory authority. During my own visit to the Fukushima Daiichi Nuclear Power Plant in February 2018, memories of which will stay with me for life, I had the honour of witnessing first-hand the real progress that had been made in decommissioning the Plant and rebuilding the region, despite the many challenges encountered.

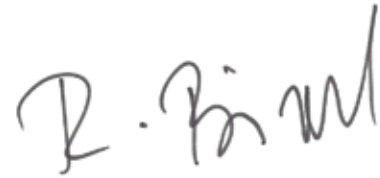
Beyond recovery from the immediate damage, Japan has, over the past decade, provided inspiration to other countries by the way in which it has transformed its energy sector to a more clean, efficient and resilient one. The IEA has been honoured to accompany and support Japan in these efforts. Your country's commitment to renewable energy technologies has led to enormous growth, in particular of solar photovoltaics, and it is pleasing to see that Japan is on-track to achieve its renewables target in the current Strategic Energy Plan. Japan has also played a leading role globally in developing new energy technologies, such as hydrogen, and the IEA was delighted to be tasked by Japan's G20 Presidency in 2019 to produce a major report on this topic. IEA analysis shows that Japan's energy conservation efforts were constructively channelled into energy efficiency measures in the course of its economic recovery, thereby avoiding pre-crisis levels in electricity demand. In parallel, regulatory reforms in electricity and natural gas markets have progressed well. These efforts enabled Japan to reduce its greenhouse gas emissions to pre-crisis levels by 2018, despite the lower contribution coming from nuclear power.



Looking forward, Japan is to be commended for setting itself the ambitious target of carbon neutrality, or net zero emissions by 2050. The IEA welcomes this bold move, and is ready to support Japan to translate this target into specific policy actions. The IEA is now working on the world's first roadmap for global net zero emissions by 2050, which it plans to release on 18 May this year. To inform this analysis, we are organising a Net Zero Summit with the UK COP26 Presidency, to take place on 31 March, and we look forward to active participation and leadership by Japan.

Please let me renew the expression of my profound respect and fraternity with the Japanese people during this moment for reflection, along with the assurance of the IEA's continued support and collaboration in the years to come.

Yours sincerely,



Dr. Fatih Birol

Cc: H.E. Mr. Yoshifumi Okamura, Ambassador and Permanent Representative of Japan to the OECD

9, rue de la Fédération, 75739 Paris Cedex 15, France  
Tel : +33 (0)1 40 57 65 10  
executivedirector@iea.org

International  
Energy Agency







Ten years after the great tragedy at Fukushima, individuals who care have assembled this keepsake to honor the nation of Japan and its citizens who both suffered and lost loved ones. As has been said many times, it is always darkest before the dawn. Frequently we see the multicolored rainbow after the fiercest of storms. Nature reminds us and uplifts us to the joy and beauty of life. The sacred sky blesses us with the magnificence of color.

In giving form to this message, I have been asked to explain my artistic process and give meaning to my imagery here. What do the many abstractions of my digital art have to do with a “practical” worldly message? How does this relate to Japan? My artistic process is unlike many professionals who are exceptionally gifted in the field of design and may seem impractical. At this stage of my career and life, I follow my heart and work in a stream of consciousness mode. Color is a formless universal expression of beauty and feelings that is quite healing. I love design, I love art and I love color. And I love the peoples of the world in all countries.

This question is actually too big to answer with a short response. However there are many symbols that express deep meanings hidden within my imagery. I discover what the Muse has expressed through me and learn by asking questions. I suggest you do the same. The circle is a recurring theme in my art. The symbolism is obvious to some, but on deeper reflection much can be learned. And if one does not enjoy this approach, just bathe in the colors and feel the message. Even Benjamin Franklin took air baths. Why not bathe in color?

As a college student over fifty years ago at UCLA, I embraced a generation of professors who believed that the purpose of design is not merely a commercial venture for packaging products and ideas. The most noble purpose of the profession is to uplift mankind. A number of influential individuals, among them the more serious Professor Mits Kataoka of Japanese descent and the joyful John Neuhart, a gifted typographer and scholar, helped sculpt my heart and mold my mind to their refined way of thinking. We remained friends for many years, long after I graduated.

I have always been deeply moved by the preciseness and purity of Japanese art and culture. Years ago I was fortunate to meet and dialog with Paul Rand, who was deeply influenced by Japanese art and design. My career as a graphic designer, professor, photographer and fine artist embraces the essence of Japanese design and art.

I thank William Martin for this opportunity to work on this project. I thank Japan and its deeply sensitive citizenry for having enriched my life. Hopefully the threads of my heart as woven in these pages will enlighten and help all individuals in your noble country.

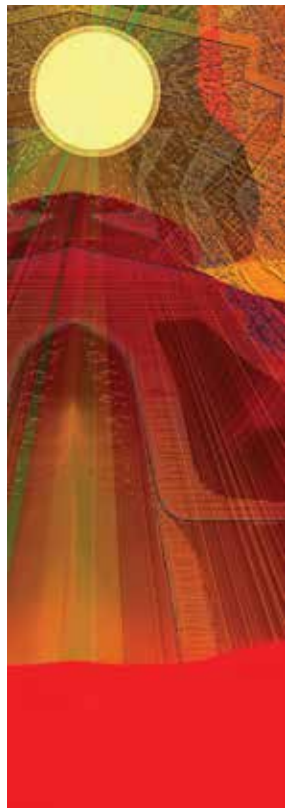
Sincerely,

Paul Perlow





I.



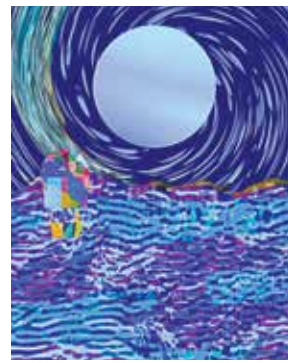
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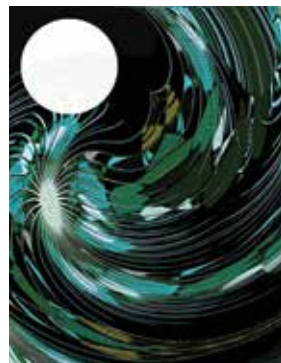
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10.

1. Life's Rainbow 2. On the Sacred Mountain 3. The Evening Sun 4. Honoring the Harvest Moon 5. The Sea of Change  
6. The Great Wave 7. The Feathering Flower 8. Beyond the Moon's Magic 9. Sea the Wave Orange 10. Waiting for Color



II.



12.



13.



14.



15.



16.



17.

16. Sphere-Is-Maximus 17. The City Is a Circus  
18. On the Edge of the Samarai Sun is based on the art of Utagawa Kunimasu







PROJECT TEAM WILLIAM FLYNN MARTIN • PAULE AUDEBERT • LAUREN HUGHES • PAUL PERLOW

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