EU-Japan Centre for Industrial Cooperation
日欧産業協力センター

JAPANESE INDUSTRY AND POLICY NEWS
April, 2021

Legislation and Policy News

- METI and UAE cooperate in hydrogen field, signed MOU on building green hydrogen supply chain
- Ocean release of treated water from nuclear power plants, two years after
- Japan's greenhouse gas reduction target raised to "46% reduction in 2030"
- Add up to JP¥ 600,000 to Tokyo's "Zero Emission Vehicle" subsidy
- Start of operation of "heat stroke warning alert" announced with a heat index of 33 or higher

Survey and Business Data

- Estimated food loss in FY 2018, about 6 million tons, down about 120,000 tons from the previous year

Company & Organization News

- Japan Agency for Marine-Earth Science and Technology (JAMSTEC) discovered a large amount of plastic waste off the Boso Peninsula of Chiba pref. at a depth of 6,000 m
- Mitsubishi Chemical's biodegradable material decomposes about 90% in the ocean in one year
- More than 200 companies request the Japanese government to "challenge to reduce greenhouse gases by 50% for 30 years"
- Succeeded in the world's most efficient artificial photosynthesis, recycling CO2 with sunlight and water
- Toyota to develop "hydrogen engine" installed in competition vehicle, put into 24-hour endurance race
- JAMA Chairman Akio Toyoda says, "Our goal is carbon neutral, and there is more than one way."

Other Topics

- After the COVID-19, it's better not to have a drinking party at work

Legislation and Policy News

METI and UAE cooperate in hydrogen field, signed MOU on building green hydrogen supply chain

Kiyoshi Ejima, Deputy Minister of Economy, Trade and Industry (METI) and Minister of Energy and Infrastructure of the United Arab Emirates (UAE) held a TV meeting on April 8 and signed a MOU on hydrogen cooperation. METI announced on April 9. The memorandum states that it will pursue cooperation for information exchange on hydrogen policy, establishment of an international supply chain including hydrogen production and transportation to Japan, and information exchange for the development of regulations and standards.

At the meeting, they welcomed the progress of the cooperation project in the hydrogen field in the UAE and agreed to cooperate for further materialization of cooperation. At the meeting, Deputy Minister Ejima stated that the UAE has abundant renewable energy in addition to fossil fuels and could become a cheap hydrogen supplier.

The Minister of Energy and Infrastructure of the UAE, Mazurui said MOU expands close cooperation between the UAE and Japan in the fields of energy and infrastructure, and sets the direction for the two countries to achieve the Paris Agreement. He also said that UAE would support and contribute to the transition to clean energy with hydrogen. METI said bilateral cooperation in the hydrogen field is expected to accelerate further.

In January, Minister of METI Hiroshi Kajiyama held a TV meeting with Jarbel Abu Dhabi National Oil Company (ADNOC) CEO and Minister of Industry and Advanced Technology to talk about decarbonization by hydrogen, ammonia, carbon recycling, etc. After discussing further cooperation between the two countries, they have signed a memorandum of cooperation (MOC) on fuel ammonia and carbon recycling.

METI website: State Minister Ejima Signs MOC on Hydrogen with H.E. Suhail Mohamed Al Mazrouei, Minister of Energy and Infrastructure, UAE (meti.go.jp)

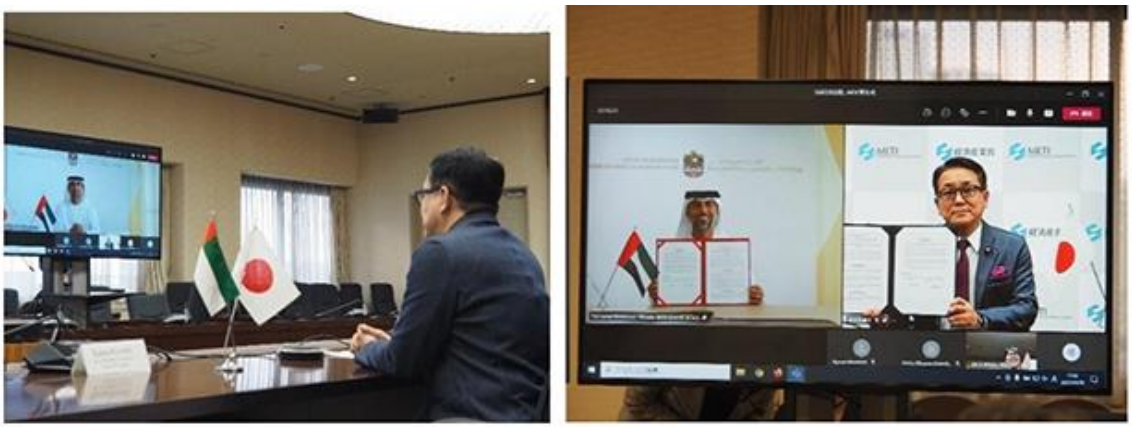


Photo from METI website

Ocean release of treated water from nuclear power plants, two years after
On Apr.13, the government decided to dispose of the treated water accumulated on the premises of the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company (TEPCO) in the form of ocean discharge. The two years later it carried out in the prospect. The situation was such that a large number of tanks could hinder decommissioning work. The government strengthen seawater monitoring and measures against reputational damage in the agriculture and fisheries industry.

It was decided at a ministerial meeting on decommissioning, contaminated water, and treated water measures held at the Prime Minister's Office on the morning of the same day. Prime Minister Yoshihide Suga said, "This is an unavoidable issue in proceeding with decommissioning. We will ensure the safety of treated water and take all measures to dispel rumors."

TEPCO Holdings will release the treated water after obtaining the approval of the plan and discharge equipment from the Nuclear Regulation Authority. The basic policy decided at the Ministerial Meeting stated, "The government requests TEPCO to proceed with preparations by starting in about two years." Tomoaki Kobayakawa, president of TEPCO, expressed his intention to promptly create a response policy for ocean release, and said, "I want to create a policy that can be understood firmly."

The treated water that TEPCO removes the main radioactive substances with a dedicated device and stores in the tank contains tritium, which is a radioactive

substance that cannot be removed by the device. Water containing tritium is also released into the ocean at nuclear power plants in Japan and overseas. According to the basic policy, treated water is diluted 100 times or more with seawater before release, and tritium is reduced to about 1/40 of the national standard value and about 1/7 of the World Health Organization (WHO) drinking water quality guideline. It makes sure that the amount of tritium released in a year is below the standard set at the Fukushima Daiichi nuclear power plant before the accident.

The government and TEPCO will strengthen tritium monitoring at fishing grounds and beaches. Agriculture, forestry and fisheries workers and local government officials will be involved in the collection and inspection of seawater samples. They will also set up a meeting made up of marine environment experts to confirm monitoring and give advice.

The International Atomic Energy Agency (IAEA) has stated that ocean emissions are "scientifically valid and have no environmental impact." However, there is a possibility of reputational damage such as consumers avoiding the surrounding agriculture, forestry and fishery products due to the release. The government and TEPCO will support the fisheries industry in Fukushima and neighboring prefectures to expand their sales channels in major domestic and overseas consumption areas.

In the event of reputational damage, TEPCO's basic policy was to promptly and appropriately provide compensation commensurate with the actual situation of the damage. The government will confirm the impact of the fishing industry after the release to the ocean, and consider necessary measures. Efforts to seek understanding from China and South Korea, which oppose the release, are also needed.

The number of tanks on the premises of the Fukushima Daiichi Nuclear Power Plant exceeded 1,000, and there was a concern that the decommissioning work would be hindered. More than 10 years after the accident, the release to the ocean was decided, which is a step toward full-scale decommissioning. However, Hiroshi Kishi, chairman of the National Federation of Fisheries Cooperatives, said, "The decision is extremely regrettable and unacceptable. It

is an act of trampling the thoughts of fishermen nationwide." In order to dispel anxiety, he asked fishermen to explain, clarify measures against reputational damage, and ensure safety.

Web site of Prime Minister's office:
https://japan.kantei.go.jp/99_suga/statement/202104/_00008.html

Photo from NHK website

Japan's greenhouse gas reduction target raised to "46% reduction in 2030"

At the Climate Summit hosted by the United States, Prime Minister Yoshihide Suga made a speech on April 22, setting Japan's greenhouse gas reduction target for 2030 by "46% reduction from 2013, and continuing to challenge to a height of 50%.

The Government of Japan declared "2050 carbon neutral in October 2020, and set 46% reduction as a consistent and ambitious goal. Prime Minister Suga said, "It will raise the target by more than 70%, and it will not be easy. But as a country that supports manufacturing in the world, we will set top-level ambitious goals suitable for the next growth strategy. Japan wants to take the leadership of decarbonization in the world."

In the future, the government will accelerate the examination to materialize the measures to achieve the target. "We will continue to take on challenges for the

goal of 2030 and 2050.“ Prime Minister said.

In addition, he said that decarbonization of the world is an issue that cannot be achieved by one country alone and that the international community must work together as one. And Japan supports the global decarbonization transition and promote international cooperation to adapt to the impacts of climate change on vulnerable countries. "

Prior to this summit, Prime Minister Suga held a Japan-US summit meeting with President Biden in Washington, DC on April 16 to further strengthen cooperation between Japan and the United States in the field of climate change, and both confirmed to lead the world in decarbonization. He also announced the launch of a "US-Japan Climate Partnership" on decarbonization and clean energy.

MOFA website: https://www.mofa.go.jp/mofaj/files/100181623.pdf

Photo from website of Prime Minister’s office

Add up to JP¥ 600,000 to Tokyo's "Zero Emission Vehicle" subsidy

On April 23, the Tokyo Metropolitan Government announced that subsidies started for the purchase of zero-emission vehicles (ZEV) for individuals and businesses use introducing electric vehicles (EVs), plug-in hybrid vehicles (PHVs), and fuel cell vehicles (FCVs). It increased the amount from the previous year and started accepting applications. The application period is until

March 31, 2022.

In addition, this time, if the individuals and businesses received a subsidy to introduce ZEV on the "100% renewable energy" implemented by the Ministry of the Environment, the subsidy amount will be further added.

Positioning 2021 as the "first year of non-gasoline conversion"
The Tokyo Metropolitan Government is aiming to make all new passenger cars sold in Tokyo 100% non-gasoline by 2030, with the aim of realizing "Zero Emission Tokyo," an environmentally advanced city that does not emit CO2.

The requirements for ZEVs to be subsidized are:
- Must be the first registered vehicle (excluding used imported vehicles) between April 1, 2020 and February 24, 2023.
- The vehicle must be covered by the Ministry of Economy, Trade and Industry's "Clean Energy Vehicle Introduction Project Cost Subsidy" on the day of initial registration.
- The period from the first registration date to the application acceptance date must be within one year.
- The "location of the base of use" in the automobile inspection certificate is within Tokyo, etc.

This subsidy consists of a project to promote the spread of electric vehicles (EV / PHV vehicles) and fuel cell vehicles (FCV vehicles), and the amount of the subsidy varies depending on the initial registration period. The outline of the subsidy target and the subsidy amount is as follows.

Promotion project for electric vehicles (EV / PHV vehicles)
Grant recipients
- Corporate / sole proprietors with offices / business in Tokyo
- Individuals with an address in Tokyo
- A leasing company that has entered into a leasing contract with a person listed above
- A business or individual who has entered into a leasing contract with a above leasing business

Tokyo Met. website (in Japanese):
https://www.tokyoco2down.jp/subsidy/ev

Outline of subsidies for EV and PHV

First registration year: until March 31, 2021				
	EV		PHV	
Corporate / Individual proprietor	¥250,000		¥200,000	
Individual	¥300,000		¥300,000	
First registration year: from April 1, 2021 to February 24, 2023				
	Normal		With subsidy from the Ministry of the Environment	
	EV	PHV	EV	PHV
Corporate / Individual proprietor	¥375,000	¥300,000	¥500,000	¥400,000
Individual	¥450,000	¥450,000	¥600,000	¥600,000

- Subsidies for FCVs are specified separately
- Data from Tokyo Met. website (in Japanese)

Start of operation of "heat stroke warning alert" announced with a heat index of 33 or higher

From April 28, the Ministry of the Environment and the Japan Meteorological Agency started operation of "Sickness Warning Alert" which calls for "awareness" of the heat when a hot environment with an extremely high risk of heat stroke is predicted, and will effectively encourage the people to take preventive actions against heat stroke.

"Heat stroke warning alert" is a daily maximum heat index 33 at any of the WBGT calculation points in the target area, with the prefectural forecast districts (Hokkaido, Kagoshima prefecture, Okinawa prefecture subdivided) that divide the whole country into 58 units. It is announced when predicting the above. The timing is 5 pm the day before and 5 am on the day.

The information period is from the 4th Wednesday of April to the 4th Wednesday of October every year (2021 is from 5 pm on April 28 to 5:00 am on October 27). The two ministries are calling for preventive actions when issuing alerts, such as refraining from going out and avoiding the heat, calling out to people at high risk of heat stroke.

Alert announcement information and WBGT for each predicted point in the

relevant prefecture will be provided on the Ministry of the Environment's heat stroke prevention site. The site's "heat stroke warning alert mail delivery service" can also be used free of charge (registration required). When a heat stroke warning alert is announced in the registered area, the people will be notified by email twice a day (6:00 am and 5:00 pm).

The heat index (WBGT) is an index proposed in the United States in 1954 for the purpose of preventing heat stroke. The unit is expressed in degrees Celsius (° C), which is the same as the temperature, but the value is different from the temperature. Focusing on the heat exchange (heat balance) between the human body and the outside air, it is an index that incorporates the three factors that have a large effect on the heat balance of the human body: humidity, the surrounding thermal environment such as solar radiation and temperature.

In recent years, since the number of heat stroke carriers has been increasing remarkably, a method of transmitting information that leads to effective preventive actions by the people has become an issue.

In the "Action Plan for Heat Stroke Countermeasures" formulated on March 25, 2021, the government has turned to a remarkable declining trend, aiming for zero deaths due to heat stroke at an early stage.

MOE website: http://www.env.go.jp/en/headline/2512.html

Image from Kankyo Business on line

Survey and Business Data

Estimated food loss in FY 2018, about 6 million tons, down about 120,000 tons from the previous year

On April 27, the Ministry of the Environment announced the estimation results of the amount of food waste and food loss generated in FY2018. The amount of food waste generated is about 25.31 million tons (down about 190,000 tons from the previous year), of which about 6 million tons (down about 120,000 tons) of "food loss" is discarded even though it is originally eaten. Although food loss is declining, 6 million tons is equivalent to the annual rice production in Japan, and further improvement is desired.

This estimated value is based on reports from businesses based on the Food Recycling Law for business food waste, and based on fact-finding surveys of municipalities for household food waste. The Ministry of the Environment, the Consumer Affairs Agency, and the Ministry of Agriculture, Forestry and Fisheries are planning to further promote efforts to reduce food loss in cooperation with related ministries, local governments, and businesses.

In Japan, efforts are being made by the national government, local governments, businesses, etc. based on the Food Recycling Law to promote recycling of food waste and loss. Especially for food loss, efforts as a national movement are being promoted.

With regard to food loss, one of the targets of the Sustainable Development Goals (SDGs) is to halve per capita food waste worldwide by 2030. In Japan, according to the 4th Basic Plan for Promotion of Recycling Society (Cabinet decision on June 19, 2018) and the basic policy of the Food Recycling Law, food loss for households and businesses will be reduced to be halved by 2030 compared that of 2000.

MOE website (in Japanese): https://www.env.go.jp/press/109519.html

Estimated results of food waste and food loss FY 2018

	Food waste			Food loss		
	Total	Classification		Total	Classification	
		Business	Home		Business	Home
FY 2018	25,310	17,650	7,660	6,000	3,240	2,760
FY 2017	25,500	17,670	7,830	6,120	3,280	2,840
FY 2016	27,590	19,700	7,890	6,430	3,520	2,910
FY 2015	28,420	20,100	8,320	6,460	3,570	2,890
FY 2014	27,750	19,530	8,220	6,210	3,390	2,820
FY 2013	27,970	19,270	8,700	6,320	3,300	3,020
FY 2012	28,010	19,160	8,850	6,420	3,310	3,120

Unit: thousand tons

Company & Organization News

Japan Agency for Marine-Earth Science and Technology (JAMSTEC) discovered a large amount of plastic waste off the Boso Peninsula of Chiba pref. at a depth of 6,000 m

Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has revealed for the first time that a large amount of plastic waste is accumulated in the deep sea plain about 500 km off the Boso Peninsula and at a depth of about 6,000 m.

The organization conducted a survey on the seabed of the "Kuroshio follow-on / recirculation area" off the Boso Peninsula, one of the sea areas expected to be a collection site for deep-sea waste. The abundance of plastic waste per unit area was calculated based on the images visually observed and photographed by the manned submersible research vehicle "Shinkai 6500".

As a result, the density of plastic waste spreading in the deep sea plain of the "Kuroshio follow-up / recirculation area" (average 4,561 km2) was two orders of magnitude higher than the previously recorded plastic waste in the deep sea plain. In addition, the value was higher than that of depressions such as trenches and submarine canyons, where dust is likely to collect.

This data suggests the large amount of waste carried by the Kuroshio has subsided and is deposited on the deep sea floor of the waters around Japan, and the deep sea floor of the "Kuroshio continuation / recirculation area" is the main collection point for plastic waste.

In addition, most of the garbage found (more than 80%) was "disposable plastic" such as plastic bags and food packaging. It was also found that the deterioration of plastics is extremely difficult to progress in the deep sea where the water temperature is low, such as the fact that food packaging manufactured in 1984 was found almost intact. "It has become clear that the pollution of plastic waste is spreading even on the deep seabed near a depth of 6,000 m."

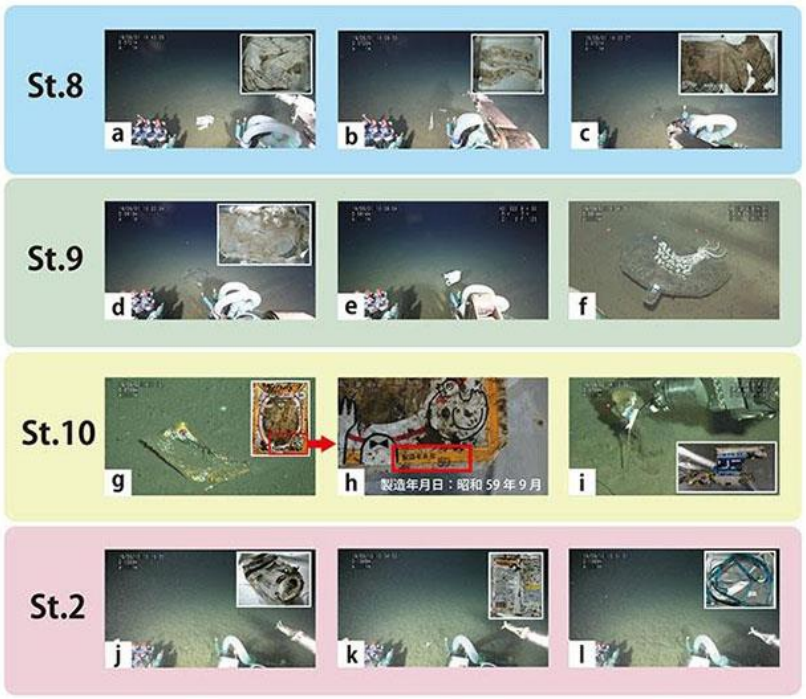
The amount of plastic waste that flows into the ocean every year is estimated to exceed about 10 million tons, but observations show that the total amount of plastic waste floating on the surface of the sea is only 440,000 tons, and most of it is said to be missing. The deep sea floor is considered to be the final accumulation area for plastic waste, but the actual situation is not well understood. In particular, information on plastic waste on the deep seabed is extremely scarce even in the world, and there is an urgent need to clarify the actual situation.

About half of the huge amount of plastic waste that flows into the ocean every year leaks from East and Southeast Asian countries. Some of the garbage leaked from these large-scale discharge areas rides on the Kuroshio Current and moves northward in the waters near Japan.

In addition to the seabed of the "Kuroshio follow-up / recirculation area" off the Boso Peninsula, which was the subject of this survey, the "Kuroshio / recirculation area" off the coast of Shikoku is also expected to be a huge collection site for deep-sea waste. The organization is going to conduct a survey on the seabed of the "Kuroshio / Recirculation Area" off Shikoku, which has not been clarified.

JAMSTEC website: http://www.jamstec.go.jp/e/about/press_release/20210330/

Example of photos of the found garbage
St.8: (a) Plastic bag, (b) Plastic bag, (c) Synthetic clothing and synthetic net.
St.9: (d) Plastic bag, (e) Plastic bag, (f) Aluminum vapor deposition type balloon. Aluminum is corroded and the inner plastic film remains.
St.10 (g) Chicken hamburger bag, (h) The date of manufacture is printed as September 1984, (i) Toothpaste. Estimated 14-15 years ago from the package design.
St.2: (j) Beer cans, (k) Instant noodle bags, (l) Packing strings.



Mitsubishi Chemical's biodegradable material decomposes about 90% in the ocean in one year

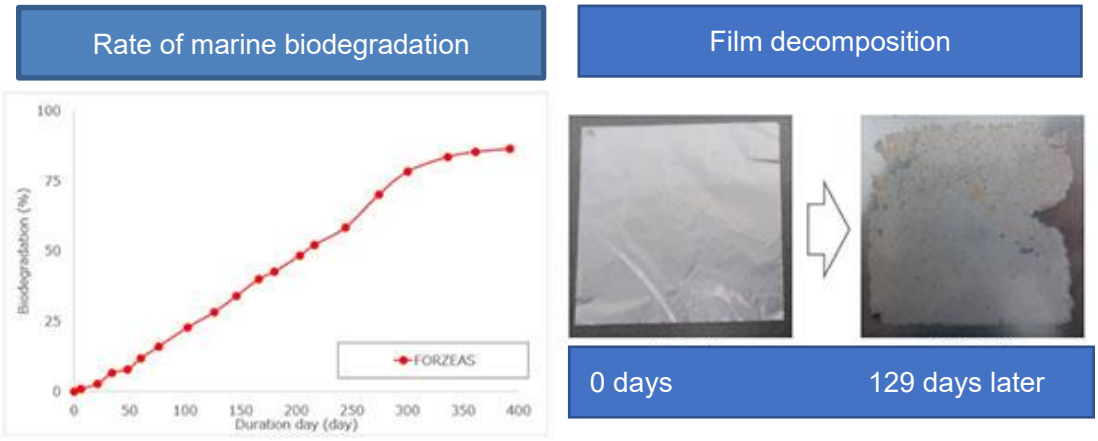
Mitsubishi Chemical announced on April 12 that a film using a plant-derived biodegradable resin compound "FORZEASTM" decomposed by about 90% in one year in a marine biodegradability test. In addition, a plastic shopping bag using the same grade was adopted by the NPO Nakatsu Town Development Council (Nakatsu City, Oita Prefecture) for the first time.

A test conforming to the international standard ISO was conducted by a third-party organization. The test target is a 25-micron thick film (sample provided by Kirax) formed with FORZEAS (resin compound using BioPBSTM). About 90%

decomposition was confirmed in one year.

As the demand for environmental consideration for plastics increases, the company will continue to handle plastic shopping bags, garbage bags, and other food packaging materials based on the results of this test.

Mitsubishi Chemical Corporation website:
https://www.m-chemical.co.jp/en/news/2021/__icsFiles/afieldfile/2021/04/09/forzeaseng_1.pdf



More than 200 companies request the Japanese government to "challenge to reduce greenhouse gases by 50% for 30 years"

On April 19, the Climate Change Initiative (JCI) issued a message calling on the Government of Japan for an ambitious 2030 target to realize the Paris Agreement, setting Japan's greenhouse gas reduction target (NDC) from "current 26%"(Note: This figure is before the climate summit by the USA on Apr. 22). JCI asked the Japanese government to strengthen it to an ambitious level suitable for its role and responsibility as a developed country, which is comparable to Europe and the United States, which aims to reduce the amount by at least 45%, 50% and 55%. "

JCI also announced 291 supporting organizations. The breakdown is 208 companies, 22 local governments and 61 other organizations and NGOs. Companies include Asahi Group Holdings, NEC, Sumitomo Mitsui Construction, Dentsu, etc. In a wide range of fields such as IT, materials, chemicals,

machinery, steel, pharmaceuticals, telecommunications, shipping, food, retail, housing / construction, civil engineering, urban development, finance / insurance, etc. The small and medium-sized enterprises that support it are listed. In addition, 22 local governments from Hokkaido to Kyushu such as Tokyo, Nagano, Tokushima, Sapporo, Yokohama, Kyoto, Osaka and Kitakyushu, consumer groups such as the Japan Life Cooperative Association, and religions 61 organzations including groups, universities / research institutes, and NGOs agreed.

The message calls on the Japanese government to strengthen its greenhouse gas reduction targets (NDC) to at least 45%, and to ambitious levels of 50% and 55% reductions. It also called for the achievement of this reduction target by expanding renewable energy to 40-50% in 2030 and reducing dependence on fossil fuels such as coal-fired power.

The IPCC reports that emission reductions of about 45% are required by 2030 to achieve the 1.5 ° C target, but 45% is a global reduction target, so higher reductions for developed countries are necessary. According to JCI, "The faces of companies and organizations that support this time are a microcosm of Japanese society, and it is no exaggeration to say that they are the true voices that represent Japan."

JCI website: https://japanclimate.org/english/news-topics/jci-message-calling-for-raising-japans-2030-reduction-target-was-published-on-newspapers-and-an-article/

JCI member companies had a meeting
with Minister of the Environment Koizumi on Dec. 11, 2020
Photo from JCI website

Succeeded in the world's most efficient artificial photosynthesis, recycling CO2 with sunlight and water

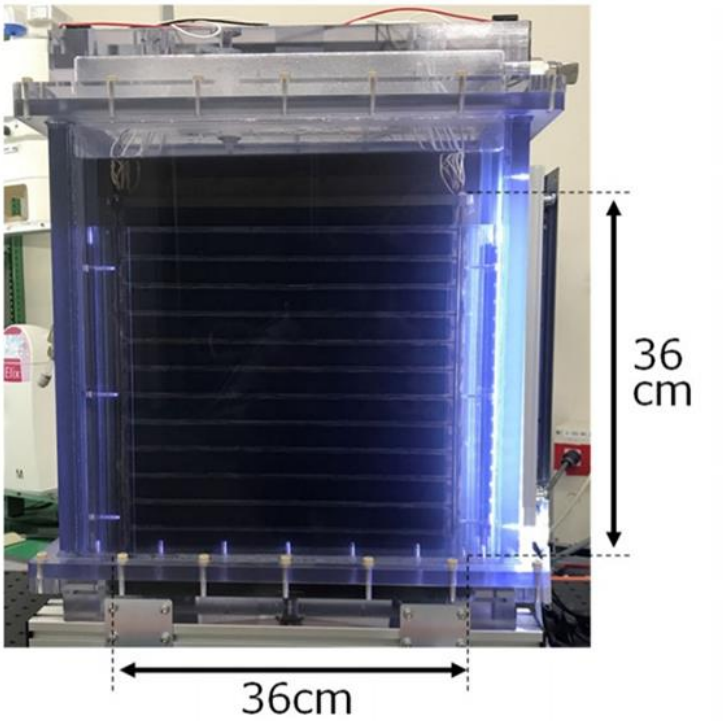
Toyota Central R & D Labs. announced on April 21 that it succeeded in "artificial photosynthesis", which uses the energy of sunlight to synthesize useful substances (formic acid) only from CO2 and water, with the size of a practical solar cell (36 cm square size). It achieved the world's highest solar conversion efficiency of 7.2% in this class.

"Artificial photosynthesis," which synthesizes chemicals using solar energy and CO2, is expected as a technology for recycling CO2. The new cell structure adopted this time can be applied to larger sizes. In the future, the institute is aiming to realize a system that collects CO2 emitted from factories and recycles it by this artificial photosynthesis.

In 2011, the institute succeeded in demonstrating artificial photosynthesis that directly synthesizes organic matter (formic acid) from only CO2 and water using sunlight. At the time of the world's first demonstration of the principle in 2011, the solar conversion efficiency was 0.04%, but in 2015, the conversion efficiency was 4.6% (the highest in the world at that time), which is much higher than that of plants with a 1 cm square size.

For social implementation, it is necessary to expand the conversion efficiency of the artificial photosynthesis cell to a practical size without lowering it, but it has been technically difficult. While keeping the basic principle, they devised a new cell structure and electrodes that can be used for formic acid synthesis without leaving a large amount of electrons generated by sunlight.
Formic acid (HCO2H) is expected to be used as a "hydrogen carrier" that can efficiently store and transport hydrogen.

Joule website:
https://www.cell.com/joule/fulltext/S2542-4351(21)00002-7?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2542435121000027%3Fshowall%3Dtrue



36 cm square artificial photosynthesis cell
From Toyota Central R&D Labs. website

Toyota to develop "hydrogen engine" installed in competition vehicle, put into 24-hour endurance race

Toyota Motor Corporation announced on April 22 that it will work on the technological development of "hydrogen engine". A hydrogen engine will be installed in a competition vehicle based on the Corolla Sport, and it will participate in the 24-hour endurance race held at Fuji Speedway (Shizuoka Prefecture) from May 21 to 23.

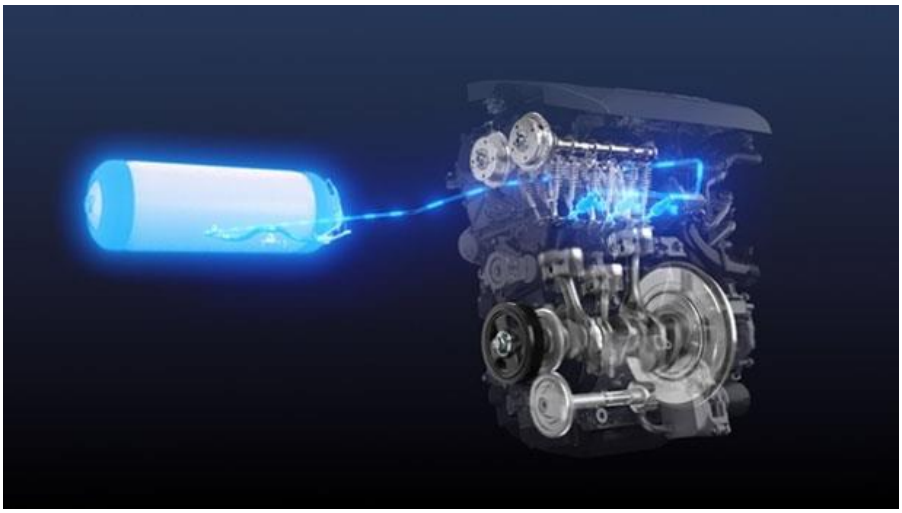
The fuel cell (FC) used in Toyota's "MIRAI" etc. chemically reacts hydrogen with oxygen in the air to generate electricity and drive the motor, while the hydrogen engine is a fuel supply system from a gasoline engine. Power is generated by changing the injection system and burning hydrogen. Except for a very small amount of engine oil burned, no CO2 is generated during driving.

For this hydrogen engine, they also made use of the technology that have trained in motor sports, such as the GR Yaris, which went on sale in September 2020. Regarding safety, the company will utilize the accumulated technology

and know-how through the development of fuel cell vehicles and the sale of MIRAI. The engine has a total displacement of 1618cc and is an in-line 3-cylinder intercooler turbo.

During the competition, hydrogen produced at the "Fukushima Hydrogen Energy Research Field (FH2R)" in Namie Town, Fukushima Prefecture will be used. Along with aiming to expand infrastructure by promoting the utilization of hydrogen, they will also promote efforts for economic recovery and regional revitalization together with related parties. The company has been strengthening its efforts to promote the utilization of hydrogen by popularizing not only fuel cell vehicles (FCVs) but also many FC products toward the realization of carbon neutrality. In the future, it aims to realize a better hydrogen society by further training hydrogen engine technology in motor sports.

Toyota website:
https://global.toyota/en/newsroom/corporate/35209996.html?padid=ag478_from_pickup



Hydrogen engine newly developed by Toyota Motor Corporation
from Toyota website

JAMA Chairman Akio Toyoda says, "Our goal is carbon neutral, and there is more than one way."

Akio Toyoda, Chairman of the Japan Automobile Manufacturers Association (JAMA) and President of Toyota Motor Corporation said that it is necessary to

deal with existing vehicles in order to achieve the goal of virtually zero greenhouse gas emissions (carbon neutral). He said that it would not be possible to achieve this simply by banning the sale of new gasoline-powered vehicles.

Mr. Toyoda explained at an online press conference on April 22 that while the ratio of electric vehicles such as hybrid vehicles in Japan is increasing to 35% in new vehicle sales, it is less than 10% on an owned basis. He said that “Unless we do something, we can't achieve carbon neutrality as a nation, because the car holding period is increasing.

He also pointed out that carbon-neutral fuels such as carbon dioxide (CO2) and hydrogen synthetic liquid fuel "Efuel" can be used in gasoline-powered vehicles, so the technology cultivated in Japan can be utilized. He expressed his expectation that CO2 reduction is possible even in areas where the charging infrastructure for electric vehicles (EV) is not developed.

Mr. Toyoda emphasized, "It's not about EV and FCV sales promotion, gasoline car ban, but carbon neutrality is the goal, and rather than restricting existing technology, but it is the first step to expand all paths and options to carbon neutrality."

With the global decarbonization trend accelerating, the Suga administration is aiming for virtually zero greenhouse gas emissions by 2050. Although the automobile industry has also indicated a direction such as a ban on the sale of gasoline-powered vehicles, Mr. Toyoda has been complaining to the government about decarbonization efforts in the energy field from the standpoint of the chairman of JAMA.

About a synthetic fuel, the major issue in the future is cost reduction. According to a study group of the Ministry of Economy, Trade and Industry, it is estimated that synthetic fuel will cost about JP¥ 300 to 700 per liter, and even if the price of hydrogen drops in the future, it will be about JP¥ 200. The government's "Green Growth Strategy" announced in December last year set the goal of reducing the cost of synthetic fuels to below the gasoline price in 2050. At present, the national average price of gasoline in Japan is about JP¥ 150. The

study group of METI has expressed the view that the cost of synthetic fuels will need to take into account the environmental value of decarbonization in the future, and it is not appropriate to make a simple comparison with existing fuels.

JAMA website（in Japanese/YouTube）: https://blog.jama.or.jp/?p=230

Akio Toyoda, JAMA Chairman

Other Topics

After the COVID-19, it's better not to have a drinking party at work

Due to the influence of the COVID-19, the company's welcome and farewell party and year-end party have been canceled, and drinking parties are being held online. But how many people want a real drinking party at work after the COVID-19? Alcoholic beverage maker Kirin Holdings (HD) conducted a questionnaire survey of 1,000 men and women in their 20s to 50s nationwide who drink alcohol at least once a month. When asked about the drinking party that they would like to revive after the COVID-19 has converged, the first place was "cherry blossom viewing" (43.9%), the second place was "year-end party" (41.9%) and the third place was "birthday party" (40.5%).

On the other hand, when asked about drinking parties that they thought "it is better to leave them" even after the COVID-19, the first place was "entertainment with business partners" (64.8%) and the second place was "company regular drinking parties" (61.9%), followed by "New Year's party" (49.5%). With more than 60% of the respondents in both 1st and 2nd place, the

Kirin says, "It can be seen that there are quite a lot of people who want to avoid work-related drinking parties even after the COVID-19"

From those who answered "entertainment with business partners" pointed out, "because it is hard to care" (25-year-old woman), "I don't need it originally (41-year-old man), "we can build a relationship without doing it" (52-year-old woman) and "Because it's not the drinking party we want and we get tired" (26-year-old man). Those who answered "company regular drinking party" said "because we can prevent various harassments such as forced drinking" (37-year-old man) and "company drinking party is an extension of business" (43-year -old woman), etc.

When asked that "Please answer all your anxieties and stresses, the answerer replied "I feel stressed about being sent to a drinking party that I don't want to go" (36.0%), followed by "I can't go home when I want to" (31.7%) and "I'm worried about my physical condition because it's been a while" (23.0%). In addition, 12.1% of the respondents answered that they may be exposed to alcohol harassment. When asked about harassment, the first place is "sexual harassment after getting drunk" (30.5%), the second place is "forced drinking" (16.7%), and the third place is "to be threatened" (15.2%). It seems that there are many people who want to participate in private drinking parties after the COVID-19, but want to disappear at work-related drinking parties.

PRTIMES website (in Japanese):
https://prtimes.jp/main/html/rd/p/000000007.000045047.html

Image from Kirin Holdings website