



DrumBeat: May 12, 2009

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Topic: [Miscellaneous](#)

[Oil Prices: Norwegian Supply Falls; Is \\$100 Oil Far Away?](#)

Norway, the world's fourth biggest crude exporter, said Monday that its oil production fell a sizeable 7% in April to 1.99 million barrels a day last month from 2.15 million barrels a day in March.

Though preliminary, the data highlight one of the big underlying supply problems in non-OPEC states that many oil analysts believe is likely to send crude prices back over the \$100 a barrel mark in coming years.

...The Norwegian situation is being replicated in other non-OPEC oil producers, such as Mexico and the U.K. These regions are mature and giving up less oil, meaning that keeping production flat is getting harder and harder.

[Report: Tidewater boats seized by Venezuela](#)

Venezuela's state oil company has seized an undisclosed number of boats belonging to Tidewater Inc., which provides water transportation for the petroleum industry, according to a published report.

[World 2009 oil demand seen lowest since 2004 - EIA](#)

WASHINGTON (Reuters) - Despite rising optimism about the economy, the U.S. Energy Information Administration on Tuesday again slashed its forecast for 2009 world oil demand, lowering its estimate by 420,000 barrels per day to 83.67 million bpd, which would be the lowest level in five years.

The EIA said it expects world oil demand to fall by 1.8 million bpd this year from 2008's levels as consumption remains weak because of the global economic downturn.

Its projection would place global oil consumption at the lowest level since demand was 82.41 million bpd in 2004.

With crude oil prices up to around \$60 a barrel due to some positive economic indicators, many energy analysts and traders were anticipating that the EIA would not

make another major cut in its oil demand forecast.

[Three cheers for higher oil prices!](#)

Kind of. Oil at \$60 is good news if the rise is fueled by stronger demand, not a weak dollar and speculation. But at some point oil prices may become too high.

[Egypt's oil minister warns of oil price spike](#)

Egypt's oil minister is warning that delaying investments in the energy sector because of the global financial crisis could drive oil prices to over \$200 per barrel in the next few years.

[GE Will Build an Advanced-Battery Plant](#)

General Electric (GE) said on May 12 that it would invest \$100 million in a battery manufacturing plant in upstate New York, which will produce sodium-based batteries for hybrid trains and other vehicles. The venture, a new business for the company's GE Transportation unit, should bring in \$500 million by 2015 and \$1 billion a few years later, says Chief Executive Jeffrey Immelt.

[Turning off wind turbines saves bats](#)

Turning off wind turbines during low-wind periods reduces the rate of bat deaths at wind farms by 70 percent, according to a study conducted by Portland-based wind energy developer Iberdrola Renewables.

[Edison's 230-Mile 'Extension Cord' Fuels U.S. Fight](#)

(Bloomberg) -- Arizona regulators didn't embrace Edison International's proposed power line to transport solar electricity across their state to Palm Springs, California, as a triumph for renewable energy.

They called it California's "230-mile extension cord" and tried to pull the plug. The unresolved dispute over the \$774 million project has helped fuel a fight in Washington over whether the federal government should seize more authority from states over the approval of high-voltage power lines.

Fortifying the 211,000 miles of cables that form the core of the U.S. electrical grid raises issues as public as national energy policy and as private as a backyard view. The political fight for control may help determine whether the U.S. fulfills President Barack Obama's goal of doubling renewable energy use in three years.

[Olade Head Says Oil to Average \\$60-\\$65 a Barrel Until Year-End](#)

(Bloomberg) -- Oil will average \$60 to \$65 a barrel for the rest of 2009, said Carlos Florez, executive secretary of the Latin America Energy Association.

Current prices are “not low” and demand for oil will rebound “soon,” Florez said today in an interview in La Jolla, California. His group, known as Olade for its Spanish initials, counts 26 countries in Latin America and the Caribbean as members.

[Assets grab: Venezuela's government takes over more of the oil and gas industry](#)

In the latest episode in its drive to increase its control over Venezuela’s oil and gas industry, the government of President Hugo Chávez has announced its intention to seize the assets of 60 local and foreign oil-services companies. Ultimately, the move could prove self-defeating if it exacerbates the downturn in oil production and export income, and dissuades other private investors and contractors from entering the country.

[Sheikh Who Backed Barclays Gets Another Shot With Qatar's Money](#)

(Bloomberg) -- On a March morning in Qatar’s Ras Laffan Industrial City on the Persian Gulf, a red flame shrouded in black smoke shoots into the haze from a 650-foot stack. The burst of fire is burning off excess fuel as workers rush to finish equipment that will help the nation, already the world’s biggest exporter of liquefied natural gas, more than double output in the next two years.

An hour away in Doha, amid the glass and steel skyscrapers turning this desert capital into a modern metropolis, Sheikh Hamad bin Jassim bin Jaber Al-Thani will invest as much as \$20 billion a year from the gas bonanza.

[Greece, Russia to sign gas pipeline deal](#)

Greece said Tuesday it will expand an agreement with Russia to join the Kremlin-supported South Stream project that will pipe Russian gas to Europe.

Development Minister Costis Hatzidakis said the deal, which will increase EU dependence on Russian gas, would be signed later this week.

[Polish gas monopoly PGNiG reaches deal on gas deliveries with Gazprom](#)

WARSAW, Poland (AP) — Poland's gas monopoly PGNiG said Tuesday it had reached a deal with Gazprom to receive 1.024 billion cubic meters (1.34 billion cubic yards) of natural gas from the Russian company through the end of September.

PGNiG, or Polskie Gornictwo Naftowe i Gazownictwo, estimated the value of the agreement at around \$300 million, but said the final value would depend on the world market price of crude oil products.

[Unique solar power factory dedicated in N.M.](#)

ALBUQUERQUE, N.M. - Schott Solar has formally dedicated its flagship U.S. manufacturing plant — the first in the world capable of producing both photovoltaic panels for homes and businesses and thermal receivers for large-scale solar power plants.

The latter are for a growing industry segment: solar thermal farms that use huge parabolic mirrors to harness the sun. The receivers sit at the focal point of the mirrors. Fluid inside the receivers is heated and then flows to a heat exchanger, which creates steam. The steam spins a turbine, creating energy with no carbon emissions.

[Cost of solar energy will match fossil fuels by 2013, claims Solarcentury](#)

Solar energy will fall in price to match the cost of conventional fossil fuel electricity far sooner than previously expected, the UK's largest solar company has claimed in a new report. Solarcentury said British homeowners will see solar achieve "grid parity" — the point where solar electricity rivals or becomes cheaper than conventional nonrenewable electricity — by 2013. Most predictions suggest that technological innovation will not bring the price down far enough until 2020 or later.

The company suggested falling production costs for solar panels and increasing conventional electricity costs have brought parity closer. Prices for solar and grid electricity in residential homes are expected to crossover at around 17p to 18p per unit of electricity (kWh) in 2013, followed by parity for commercial solar electricity in 2018.

[Buy oil. They've stopped making it](#)

Given the world's economy is so dependent on oil, one would expect the oil price to have fallen much further during this economic collapse than it has. The fact that oil is currently range-trading around \$50 per barrel could, at first glance, seem rather unusual.

Is this the natural course of supply and demand? In our view yes, the latest figures from the EIA (Energy Information Administration) suggest demand from China and other emerging markets continues to rise whilst being offset by a fall in demand from

developed markets.

In our view, even a marginal return of global growth is likely to send oil prices higher. Hence, we hold a long-term (12 month) positive view on oil.

From a supply perspective, discoveries of oil reserves have steadily been declining since reserves peaked in 1980. That said, we are far from running out of oil in the near term. Nevertheless, the question is how much more marginal supply there is. In our view, we are getting ever closer to “peak oil” – the point when global productivity of oil reaches its maximum rate.

[In German Suburb, Life Goes On Without Cars](#)

VAUBAN, Germany — Residents of this upscale community are suburban pioneers, going where few soccer moms or commuting executives have ever gone before: they have given up their cars.

Street parking, driveways and home garages are generally forbidden in this experimental new district on the outskirts of Freiburg, near the French and Swiss borders. Vauban's streets are completely “car-free” — except the main thoroughfare, where the tram to downtown Freiburg runs, and a few streets on one edge of the community. Car ownership is allowed, but there are only two places to park — large garages at the edge of the development, where a car-owner buys a space, for \$40,000, along with a home.

[Early road aid leaves out neediest, study finds](#)

NEW YORK - Counties suffering the most from job losses stand to receive the least help from President Barack Obama's plan to spend billions of stimulus dollars on roads and bridges, an Associated Press analysis has found.

Although the intent of the money is to put people back to work, AP's review of more than 5,500 planned transportation projects nationwide reveals that states are planning to spend the stimulus in communities where jobless rates are already lower.

[Japan joins Russian push for Pacific gas projects](#)

TOKYO (Reuters) - Russian gas export monopoly Gazprom signed a memorandum of understanding with Japan on Tuesday to explore gas projects in eastern Russia, the company's chief executive said.

Alexei Miller told reporters the memorandum would explore ways to process gas near the Pacific city of Vladivostok for supply to consumers in Russia and the Asia-Pacific region, including Japan. The Agency of Natural Resources and Energy, part of the

Japanese Ministry of Economy, Trade and Industry, as well as Itochu Corp (8001.T) and Japan Petroleum Exploration Co signed up to the memorandum.

[Belarus urges Iran to move ahead with joint oil field project](#)

MINSK (RIA Novosti) - Belarus hopes that a joint Belarusian-Iranian project to develop an oil field in southern Iran will begin work in the near future, Belarusian First Deputy Prime Minister Vladimir Semashko said on Tuesday

[Oil theft barge sunk in Nigeria](#)

A barge laden with thousands of tonnes of stolen oil has sunk off the coast of Nigeria, a military spokesman has said.

The barge was scuttled by its crew who fled before they could be arrested, Lt Col Rabe Abubakar told the BBC.

Crude oil theft, known as "bunkering", costs Nigeria billion of dollars in lost revenue every year.

[Car designer sees China's wheels electric-powered](#)

The UK's top car designer, Peter Stevens, sees China's future on the wheels powered by electricity.

[VC spending for alternative energy tumbles 63 pct](#)

NEW YORK – Venture capitalists reined in spending on renewable energy to begin the year, with funding for research and startup projects falling 63 percent through March, according to an industry report released Monday.

It is the latest indicator of just how badly the global economic downturn has dampened the rush toward alternatives to fossil fuels. Oil and gas companies have also been hurt as overall demand for energy has fallen in the recession.

[Piebalgs warns of looming energy crisis](#)

BRUSSELS (UPI) -- Energy-sector market fundamentals are unchanged despite low prices, setting the stage for an energy crisis once the economy rebounds, European officials said.

[Oil tops \\$60 a barrel as China imports rise, dollar weakens](#)

NEW YORK (MarketWatch) -- Crude-oil futures rose more than 2% Tuesday to the highest level in six months, briefly topping \$60 a barrel as data showed China's crude imports for April jumped nearly 14% from a year ago.

Oil also got a boost from higher U.S. stock futures and a weaker dollar, which tends to push up dollar-denominated commodities prices such as gold and crude. The rally in oil came even after analysts expected another buildup in U.S. inventories.

[Gas prices surge 10%](#)

Prices at the pump are up 20 cents over the last 14 days but analysts say \$4 a gallon is not in the cards.

[Chrysler's sorry state revealed](#)

NEW YORK (Fortune) -- Among the thousands of pages of documents filed in connection with Chrysler's Chapter 11 bankruptcy are affidavits from Chrysler executives that open up a window on the auto business previously closed to outsiders in this intensely competitive business.

They reveal an almost unimaginable complexity in the design, manufacturing, and distribution of new cars.

But what's more revealing is that the affidavits expose Chrysler's inability to successfully compete and the dangers facing the company in a prolonged bankruptcy.

[Little hope of North Korea improving food production](#)

When the Soviet Union collapsed North Korea lost its major ally .. the ally that provided oil and technology and all kinds of things including cheap access to certain kinds of food but more particularly to access a cheap level a whole range of industrial products and those industrial products had ramifications for the agricultural sector. For example, fertiliser much of which is a by-product of petroleum is no longer available in North Korea. There is no fuel oil to drive the tractors and other kinds of machinery and that has had a major impact on North Korean productivity.

[U.S. public health community begins discussing peak oil](#)

On Thursday, March 12, the Johns Hopkins University Bloomberg School of Public

Health in Baltimore hosted the world's first gathering devoted to Peak Oil and Health, with support from the federal Centers for Disease Control and Prevention (CDC) in Atlanta. These are two of the nation's most prestigious institutions in the fields of public health and health education, and about a hundred people attended in person, with a larger number tuning in to the simultaneous web-cast. The audience was offered a wealth of information about the many ways in which today's health care services rely on infrastructure and practices that depend upon petroleum. The most likely impacts of peak oil on public health were discussed, along with opportunities for public health professionals to prepare for the roles they will play in a post-peak oil world.

[RAND says cost of oil supply disruption worst threat](#)

HOUSTON (Reuters) - The greatest threat to the United States from crude oil imports is a long-term disruption of world supply and the higher costs associated with that loss of imports, according to a RAND Corp study issued Monday.

"The fact that the United States imports nearly three-fifths of its oil does not pose a national security threat," said Keith Crane, the study's lead author and senior economist at RAND, a nonprofit research organization.

"There is an integrated world oil market, and embargoes do not work. But a large, extended drop in the global supply of oil would trigger a sharp rise in oil prices and significantly affect the United States, no matter how much or how little oil the United States imports," Crane said in a statement.

The study, commissioned by the U.S. Institute for 21st Century Energy, an affiliate of the U.S. Chamber of Commerce, recommended steps be taken to reduce the vulnerability of the U.S. economy to sudden drops in world oil supplies.

[IEA unlikely to trim demand forecast](#)

The International Energy Agency (IEA) is unlikely to reduce its oil demand forecast in its next report, the agency's executive director. Nobuo Tanaka, said today.

Oil production will fall this year, Tanaka also told reporters in Warsaw.

"According to our forecasts non-Opec supply will be reduced by half a million barrels per day in 2009 and on the whole production will be down 1.7 million barrels per day," Reuters quoted him as saying.

[Why oil supplies could go from peak condition to terminal decline](#)

Peak Oil used to be the Domsday prospect. It means the point at which we cannot develop new oilfields as fast as the old ones tail off.

With demand rising unstoppably, as the poor attempt to follow the rich up the ladder, Peak Oil looked like being the call for Last Orders in the Last Chance Saloon, when it came.

Well, according to some, it has already come – about a year ago.

[Shippers hedging on crude rise, airlines still wary](#)

SINGAPORE (Reuters) - Shippers have hastened their fuel hedging since early April as oil's recent rally worried end users that the price of already tightening marine fuel supply will move further against them.

Airlines have so far resisted the move, after many were burned last year from hedging activities at a time crude was sliding from records, along with fears of lower travel demand due to the recession and from the H1N1 flu virus, traders in Asia said.

Utilities, the third sector that leans heavily on managing fuel costs, have seen relatively steady hedging activity.

[Oil Companies May Wait for Hedges to End to Go Bargain Shopping](#)

(Bloomberg) -- Quantum Energy Partners, the Houston private-equity firm that put together a \$3.5 billion bankroll to go bargain-hunting for acquisitions after oil and natural-gas prices plunged, is waiting for a better time to pounce.

Buyers will accelerate acquisitions late this year and in early 2010 as the hedging contracts that shielded potential takeover targets from tumbling prices expire, said Wil VanLoh, Quantum's chief executive officer.

[Iraqi deal opens way for Kurdish oil to go on sale](#)

Oil from the Kurdish region of Iraq will begin to flow into world markets within a matter of weeks after a landmark agreement between Baghdad and the regional government.

[Iraq still doesn't recognize Kurds' oil deals](#)

BAGHDAD - Iraq's oil minister says the Kurds' controversial oil deals with Western companies are still considered "illegal and illegitimate."

But Hussain al-Shahristani told state TV on Tuesday that oil extracted by these companies will be collected and marketed by his ministry and all revenues will be sent into the federal accounts.

[Nigerian Unions' Oil Sector Protests To Go Ahead](#)

IBADAN, Nigeria -(Dow Jones)- The Nigerian umbrella labor organization will go ahead with its nationwide mass protests against the deregulation of the downstream sector of the country's oil industry despite a government appeal to abandon them, union officials said Tuesday.

A Nigeria Labor Congress official said the first phase of the protest will begin in Lagos, Wednesday, followed by rallies in the southern town of Asaba Friday and the northern cities of Kano and Maiduguri Tuesday and Thursday next week.

[Russia to raise oil export duty to \\$149-152 per ton from June 1](#)

MOSCOW (RIA Novosti) - Russia's oil export duty will rise from the current \$137.7 to \$149-152 per metric ton from June 1, following trends on the global oil markets, a Finance Ministry official said on Tuesday.

[Petrobras's Barbassa Says Cost 'Overhang' Hurt Quarterly Profit](#)

(Bloomberg) -- Petroleo Brasileiro SA Chief Financial Officer Almir Barbassa said the cost 'overhang' for oilfield equipment contracted when crude was higher, rising debt payments and falling oil prices led quarterly profit to slump.

[Exxon Won't Confirm or Deny Australian Filling Stations Sale](#)

(Bloomberg) -- Exxon Mobil Corp., the world's biggest publicly traded oil company, declined to confirm or deny a report it may sell its 800 Australian fuel outlets for A\$500 million (\$379 million).

[INTERVIEW-China's thirst for LNG unquenched -Qatar](#)

MILFORD HAVEN, Wales (Reuters) - China's and India's thirst for liquefied natural gas (LNG) is compensating for lower demand elsewhere during the economic crisis and China is the new centre of the global market, Qatari Energy Minister Abdullah al-Attiyah said on Tuesday.

The energy minister of the world's largest LNG producer said rising demand from China in particular was making up for lower consumption from established big LNG consumers Japan and Korea.

[Obama Keeps Options Over Offshore Drilling](#)

He isn't chanting "drill, baby, drill," but President Obama is quietly keeping his options open on offshore oil projects.

He told Democratic lawmakers last week that his administration may consider more drilling in the Outer Continental Shelf.

[Mexico Slides Toward Downgrade After 'Very Complacent' Decade](#)

(Bloomberg) -- Mexico's credit rating may be cut as soon as the third quarter as the global recession exposes the government's failure to raise taxes and ease its dependence on oil income, according to Credit Suisse Group AG and UBS AG.

"Mexico was very complacent over the past decade," Alonso Cervera, a Latin America economist at Credit Suisse, said in an interview from New York. The country "didn't really move in a meaningful way to accomplish the reforms that it needed," he said.

[Q&A: How the 'cash-for-clunker' plan would work](#)

House Democrats and the Obama administration have agreed on a compromise for a so-called cash-for-clunkers bill.

Similar to European programs, the legislation — also called "fleet modernization" or "scrappage" — would provide federal vouchers of up to \$4,500 for people to trade in their vehicles for new ones that get better mileage.

[Bigger penalties key to tackling 'dirty oil': study](#)

Governments will have to dramatically increase the penalties for emitting greenhouse gases before Canada's oil sands producers have a financial incentive to invest in carbon capture and storage, says a new study by the Canadian Energy Research Institute.

In a report released yesterday, the Calgary-based institute's research director David McColl offered "plausible" scenarios under which projects now known for producing "dirty oil" would yield "green bitumen," with less greenhouse gas emissions than conventional oil production.

"Going green is a challenge that can be met," Mr. McColl said, citing both carbon capture and nuclear power as alternative technologies.

[Japan nuke plant restarts two years after quake](#)

TOKYO (AFP) – The world's largest nuclear power plant resumed part of its operations on Saturday, two years after it was shut down following a strong earthquake off the Japanese coast, the operator said.

One of seven reactors at the Kashiwazaki-Kariwa plant, located 300 kilometres (185 miles) northwest of Tokyo, started test operations, said operator Tokyo Electric Power Co. (TEPCO).

[Russia to sign nuclear pact with Japan: reports](#)

TOKYO (AFP) – Russian Prime Minister Vladimir Putin has told Japanese media his country expects to sign a nuclear power pact with Japan during his visit here this week, reports said Sunday.

In an interview with Japanese media in Moscow, Putin said he would also present a list of economic cooperation projects during his three-day visit beginning on Monday.

[Centrica, EDF to sign deal on nuclear power](#)

PARIS (AFP) – France's state-owned EDF and Britain's Centrica announced on Monday a long-awaited joint venture aimed at relaunching nuclear energy in Britain.

EDF, the world's biggest nuclear energy producer, also said it would buy 51 percent of the Belgian electricity company SPE from Centrica for 1.3 billion euros (1.8 billion dollars), the companies said in a joint statement.

[Activists: Palm oil co's grabbing land in Asia](#)

Scores of communities in Malaysia and Indonesia are being uprooted by rapidly expanding palm oil plantations as companies try to meet the expected demand for biofuels, environmentalists alleged Tuesday.

Speaking at a two-day seminar on palm oil, the Borneo Resources Institute of Malaysia and the World Wildlife Fund in Indonesia said land disputes were emerging as one of the biggest problems associated with palm oil.

[EPA to oversee cleanup of TVA coal ash spill](#)

KNOXVILLE, Tenn. – The U.S. Environmental Protection Agency will oversee the

cleanup of a massive coal ash spill in Tennessee that brought national attention to the environmental risks of storing the power plant byproduct.

New EPA Administrator Lisa Jackson said Monday the federal agency is taking charge and "bringing to bear its resources and expertise" under the federal Superfund law.

[Climate change sparks electricity change](#)

Australia is to change the way it makes electricity, with huge new solar power plants and cleaner coal facilities to be built.

The federal government will spend billions "greening up" electricity and says it wants to lead the world in the field.

[Waxman to huddle with House Dems today in preparation for climate bill markup](#)

Rep. Henry Waxman (D-Calif.) is expected to outline details of a major global warming and energy bill later today during a closed-door meeting with his fellow Democrats on the Energy and Commerce Committee.

[Canada can influence U.S. climate change legislation](#)

CALGARY -- Canada has a lot at stake in the proposed climate change legislation being debated in Washington, but is also in a unique position to influence the outcome, the former U.S. Ambassador to Canada said yesterday.

As the largest supplier of energy to the United States and the largest trading partner, Canada is "getting front and centre and more limelight, and you are getting discussed more than usual," David Wilkins said in an interview in Calgary, where he was meeting with energy sector representatives.

[Cleaner air from reduced emissions could save millions of lives, says report](#)

Tackling climate change by cutting greenhouse gas emissions could save millions of lives because of the cleaner air that would result, according to a recent study.

Researchers predict that, by 2050, about 100 million premature deaths caused by respiratory health problems linked to air pollution could be avoided through measures such as low emission cars. The economic benefits of saving those lives in developing countries such as China and India could also strengthen the negotiating hand of the UK and Europe at a crucial UN climate summit in Copenhagen this December.

[Changes In The Sun Are Not Causing Global Warming, New Study Shows](#)

ScienceDaily (May 12, 2009) — With the U.S. Congress beginning to consider regulations on greenhouse gases, a troubling hypothesis about how the sun may impact global warming is finally laid to rest.

Carnegie Mellon University's Peter Adams along with Jeff Pierce from Dalhousie University in Halifax, Canada, have developed a model to test a controversial hypothesis that says changes in the sun are causing global warming.

[CME ready for green derivatives push](#)

CHICAGO (Reuters) - CME Group, the world's largest derivatives exchange, is gearing up for a U.S. cap-and-trade carbon policy that could mean a boom in "green" futures and options trade, a top CME official said on Monday.

"We're positioned to take advantage of that should the energy policy and energy legislation go in the way of a tradable emissions and credit market," CME Chief Executive Craig Donohue told the Reuters Exchanges and Trading Summit in New York in a telephone interview.

[THE INFLUENCE GAME: Firms exact climate price](#)

WASHINGTON – Utilities, steelmakers and oil industry lobbyists have tried to ease the pain of President Barack Obama's push to curb global warming, and they've gotten an early return on the millions of dollars they've spent influencing Congress.

Lawmakers determined to get a deal on climate change are going along with valuable concessions to polluters. It's part of the political trading necessary when powerful industries are involved.

[Floods in Brazil point to climate change: Lula](#)

BRASILIA (AFP) – Flooding that has left 44 dead in northern Brazil and the worst drought in eight decades in the south of the country are signs of climate change, Brazilian President Luiz Inacio Lula da Silva said Monday.

"Brazil is feeling climate changes that are happening in the world, when there is a deep drought in a place where there's never been one, when it rains in places where it never rains," he said in his weekly radio program.

[Disaster looms with rising sea levels: islands](#)

MANADO, Indonesia (AFP) – Rising sea levels that could wipe whole nations off the map and displace scores of millions of people are being overlooked in global climate change talks, island countries said Tuesday.

Major emitters are pushing for greenhouse gas emissions cuts that are too low to prevent devastating sea rises, representatives said at the World Ocean Conference in Indonesia's Manado city.

"Dealing with environmental refugees will have a much more serious impact on the global economy and global security in fact than what wars have ever done to this planet," said Rolph Payet, a presidential adviser from the African island nation of the Seychelles.



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