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Topic: Miscellaneous

#### WTO admits some trade limits may be necessary to stop climate change

GENEVA (AP) — The World Trade Organization acknowledged Friday that some limits on free trade may be necessary to stop runaway climate change — provided the restrictions aren't a cover for protectionism.

"WTO case law has confirmed that WTO rules do not trump environmental requirements," the global commerce body said.

Import taxes on goods coming from countries that fail to meet environmental standards might be among the measures exceptionally permitted under global free trade laws, WTO said.

#### Oil market oversupplied, demand weak - Kuwait

OPEC is unlikely to raise oil output when its minister meet in September as the oil market is still oversupplied, Kuwait's oil minister said on Wednesday.

"I doubt there will be a further increase in production," Sheikh Ahmad Abdullah al-Sabah told reporters at parliament when asked for comment about similar views by fellow OPEC members about the September meeting. The minister said demand was still less than supply.

# Russia proposes Arctic détente

Russia says it wants to work co-operatively with Canada on the future of the thawing Arctic, and both countries should freeze out non-Arctic Europeans jockeying for a piece of its rich resource "pie."

# ANALYSIS - Flop to some Iraq oil sale may be victory to others

BAGHDAD (Reuters) - To oil executives, Iraq's first auction of energy contracts since

the U.S. invasion was a giant flop. To Iraqis, basking in a renewed sense of sovereignty and nationalism, it may turn out looking like a victory.

#### Nigeria oil company rejects damning Amnesty report

(CNN) -- Nigeria's state oil company rejected criticism from a leading human rights group Wednesday, calling an Amnesty International report "inaccurate."

#### India hikes petrol, diesel prices

NEW DELHI (AFP) – The Indian government Wednesday announced a rise in petrol and diesel fuel prices, saying its hand had been forced by the increase in global crude oil prices.

# Ford US sales drop 10.7 percent in June

DETROIT – Ford Motor Co. on Wednesday called its 10.7 percent drop in U.S. June sales "steady progress," after a year of sharp declines across the industry.

The monthly decline was Ford's smallest since July of last year, a sign that U.S. auto sales may be recovering from the worst slump in 27 years.

# Truck safety advocates push to mandate speed-limiting devices

Stephen Owings, whose 22-year-old son died when his car was rear-ended, is fighting to have the federal government require the use of speed-limiting devices on all big rigs, saying: "We're not against truckers; we're pro-highway safety."

Most often, citizen-crusaders find themselves in lonely, unequal struggles against industry groups and lobbyists. But this time, David and Goliath seem to be on the same side.

#### From bush to bike - a bamboo revolution

On the outskirts of Lusaka, Zambia, next year's crop of bicycles is being watered by Benjamin Banda.

"We planted this bamboo last year," he says, "and now the stems are taller than me. When it's ready we'll cut it, cure it and then turn it into frames."

Mr Banda, is the caretaker for Zambikes, a company set up by two Californians and two

Zambians which aimed to build bikes tough enough to handle the local terrain.

#### NYISO Reviews Impact of Electric Vehicles on Grid [PDF]

The timing and magnitude of potential electric load from PHEVs will be determined by several key factors. These include consumer acceptance of PHEVs, the advancement of battery storage technologies, and the availability/location of PHEV-charging infrastructure. Two studies, one by Oak Ridge National Laboratory (ORNL) and another conducted jointly by the Electric Power Research Institute (EPRI) and the Natural Resources Defense Council (NRDC) concluded that incremental load for PHEVs in New York would be in the range of 7,000-8,000 gigawatt-hours per year (GWH/yr)by 2030.

PHEV load can also migrate and occur intermittently, as PHEV-charging opportunities (as an electric load) expand beyond the owner's home and depend on travel schedules. If charging patterns are managed properly, PHEVs with loads in the range predicted by these studies could be served by the existing New York bulk power system. The migratory nature of this load, however, does require further analysis to fully assess the impact of PHEV load on local electric distribution systems.

If the charging pattern of PHEVs is not managed effectively, loads of this size could require significant additional generation capacity. Rate design to encourage off-peak charging, coupled with time-of-use rates, and Smart Grid/Advanced Metering Initiatives, would facilitate favorable charging behavior. Advanced communication protocols between the recharging location and an evolving Smart Grid could also facilitate effective management of charging patterns.

## Suburbs refuse to pay public transportation tax

CARMEL – The Putnam County Legislature is thumbing its nose at the MTA, voting Monday night to refuse to pay the new mobility tax to the New York City transportation system.

The State Legislature and the governor approved the payroll tax, which will add a one-third of one percent levy on all payrolls in the Mid-Hudson counties of Dutchess, Orange, Putnam, Rockland and Westchester.

But, Putnam lawmakers said the tax is a job killer and they aren't going to pay it on the county's payroll.

# An Immediate Oil Shortage Is Political Fiction, Not Reality

One anti-drilling argument often invoked by environmentalists is that either America or the world is running out of oil. Neither assertion is true, says columnist Jonah Goldberg.

For example, in the 1970s, the Club of Rome guaranteed that we'd run out of oil by now.

Yet the amount of available oil has expanded greatly since then, says Goldberg.

#### OPEC oil output rises slightly in June: Reuters survey

OPEC oil supply rose in June as higher output from several members of the group offset cutbacks in Nigeria caused by militant attacks, a Reuters survey showed on Wednesday.

Supply from the 11 members of the Organisation of the Petroleum Exporting Countries bound by output targets rose to 26.02 million barrels per day (bpd) from 25.91 million bpd in May, according to the survey of oil firms, OPEC officials and analysts.

#### Ashgabat invites Russia for gas row chat

Turkmen leader Kurbanguly Berdymukhamedov today invited Russian President Dmitry Medvedev to Turkmenistan for the first meeting since the start of a gas row which has halted Turkmen gas shipments to Russia.

Russia, the main buyer of Turkmen gas, halted its imports in April after a pipeline explosion.

#### Poland eves Gulf investment hub role

After striking a long-term gas supply deal with energy-rich Qatar and selling two shipyards to a fund from the Gulf state, Poland is looking to became an EU hub for Mideast investors.

# Ambition turns to anxiety at Iraq oil auction

BAGHDAD (Reuters) - It was for one of the biggest energy auctions in history that well-heeled executives braved the dust and danger of Baghdad this week to jet in and deliver bids for lucrative long-term oilfield contracts.

For months Iraq had hyped Tuesday's auction as a triumph in transparency and a bonanza for global firms, fending off critics at home by promising the multibillion-dollar service deals would mark a turning point for the struggling oil sector.

## Hyundai's latest offer: Cheap gas

A new promotion allows Hyundai buyers to lock-in gas prices at \$1.49 a gallon for a year or take \$1,000 in cash -- most will probably take the cash.

#### US DOE awards \$308 mln to BP-Rio Tinto project

WASHINGTON (Reuters) - The U.S. Energy Department said on Wednesday it will provide up to \$308 million in funding for a clean coal project being developed by Hydrogen Energy International LLC.

# ExxonMobil continuing to fund climate sceptic groups, records show

The world's largest oil company is continuing to fund lobby groups that question the reality of global warming, despite a public pledge to cut support for such climate change denial, a new analysis shows.

Company records show that ExxonMobil handed over hundreds of thousands of pounds to such lobby groups in 2008. These include the National Center for Policy Analysis (NCPA) in Dallas, Texas, which received \$75,000 (£45,500), and the Heritage Foundation in Washington DC, which received \$50,000.

# Why ExxonMobil must be taken to task over climate denial funding

ExxonMobil should keep its promise by ending its financial support for lobby groups that mislead the public about climate change.

#### The least sea ice in 800 years

New research, which reconstructs the extent of ice in the sea between Greenland and Svalbard from the 13th century to the present indicates that there has never been so little sea ice as there is now. The research results from the Niels Bohr Institute, among others, are published in the scientific journal, *Climate Dynamics*.

There are of course neither satellite images nor instrumental records of the climate all the way back to the 13th century, but nature has its own 'archive' of the climate in both ice cores and the annual growth rings of trees and we humans have made records of a great many things over the years - such as observations in the log books of ships and in harbour records. Piece all of the information together and you get a picture of how much sea ice there has been throughout time.

# Irish 'energy for nothing' gizmo fails jury vetting

Based in Dublin's Docklands near the O2 and employing 22 people, Steorn made international headlines almost three years ago when it claimed to have discovered a way to get more energy out of a gizmo than it put in. The excess, they said, could be used to power a mobile phone, run a fridge or make an MP3 player go.

Scientists doubted the claims and, when the company resisted calls to release precise details of how Orbo worked, it asked an international panel of experts to adjudicate on the device.

Steorn organised a panel of 22 independent scientists and engineers from Europe and North America chaired by Ian MacDonald, emeritus professor of electrical engineering at the University of Alberta.

"The situation was we had engaged them in February 2007 and went through a process with them," Mr McCarthy said. Two years have passed however and the jury clearly decided that enough was enough.

It posted an announcement on its website http://stjury.ning.com that it was disbanding.

"The unanimous verdict of the jury is that Steorn's attempts to demonstrate the claim have not shown the production of energy," it stated. "The jury is therefore ceasing work."

# Commentary: Interview with Charles T. Maxwell (Part 2 of 2)

ASPO: So here's the deal—we'll make you the Energy Czar tomorrow. Your focus is on the year 2015. Where would you put your investments, either private or public incentives? Where would you put your chips? Where would you double down?

Maxwell: We're not going to have to help the oil industry. They already have all the help they need. I wouldn't take away what they have but I wouldn't add to it.

It's a little difficult to answer because there are two different kinds of money we're talking about: what will industry spend and where should government spend? Because if the industry is going to spend money on shale gas, which it is, then the government doesn't have to spend any money there. Shale gas is a natural answer to the near-term energy problem; it's one of the big answers we've got.

# New Technology May Help Pre-Salt Oil Surveys, Bernstein Says

(Bloomberg) -- New technology may help companies exploring for oil in the so-called pre-salt area offshore Brazil, home to the largest crude find in the Americas in three decades, Sanford C. Bernstein & Co said.

Most seismic imaging bounces off salt because of its different properties, "meaning that geophysicists are effectively working blind below salt," Neil McMahon, a London-based analyst at Bernstein, said in a report today. "Oil companies and seismic acquisition

companies have started to develop a host of techniques to improve the situation."

# The other Gulf of Mexico: Pemex sees potential in Mexican sector

Pemex is accelerating its exploration and production strategy in the Mexican sector of the deepwater Gulf of Mexico with the objective of reversing Mexico's declining crude oil production, explains Carlos Morales Gil, general director of Pemex E&P.

#### Iraqi oil licensing round runs into trouble

"It's been nearly 40 years now that Iraq has failed to live up to its oil potential," said Daniel Yergin, a Pulitzer Prize winning author and chairman of IHS CERA, an energy consultancy. "It's not a foregone conclusion that these arrangements will, in themselves, do what needs to be done. It's only a beginning, and it's an uncertain beginning."

# Power crisis looms large in Karnataka

BANGALORE: Bangalore city and several cities and town in Karnataka have been facing severe shortage of power on account of inadequate rainfall in June this year. The load shedding varied from one hour to seven hours while the load shedding in other cities and towns in the state was worse. With the below normal monsoon, the state is likely to face another drought during the kharif season.

...Karnataka is also not getting its central share of about 50 MW due to the stopping of generation by an unit at the Kaiga nuclear generating station on account of shortage of nuclear fuel, the minister said.

#### India: Water, power woes could see diesel demand spin out of control

Mumbai/New Delhi - The power and water shortage across the country is not the best of news to oil refiners who are worried that this could lead to excessive diesel consumption at a time when they are already making losses on sale of the fuel.

# ANALYSIS - New Shell CEO has toughest task in European business

LONDON (Reuters) - The new chief executive of Royal Dutch Shell Plc faces the tallest order in European business -- to make his company the continent's top earner this year, next year, and well into the next decade.

DEARBORN, Mich. — Ford is boosting its third-quarter production schedule after seeing more demand for its cars and trucks in June, the company said Monday.

Ford plans to increase production by 16% compared with the third quarter of 2008. The automaker had said it would increase production 10%, but is adding another 25,000 vehicles because it's seen some stabilization in June auto sales, to be reported Wednesday.

# Honda's new hybrid disappoints

NEW YORK (CNNMoney.com) -- Honda's new hybrid-only Insight, touted as a low-cost competitor to the Toyota Prius was dealt a major blow Monday after it failed to get a thumbs up from the influential magazine *Consumer Reports*.

"The Insight is the most disappointing Honda *Consumer Reports* has tested in a long time," said David Champion, director of the magazine's auto test center.

# \$32M available for hyropower projects

WASHINGTON (UPI) -- U.S. hydroelectric plants will get \$32 million in stimulus funds for efficiency improvements and modernization, Energy Secretary Steven Chu said Tuesday.

# Agriculture and Food in Crisis

"Could Food Shortages Bring Down Civilization?," asks the title of an article by Lester Brown in *Scientific American* (May 2009). Just a few years ago, such a question would have seemed almost laughable. Few will be surprised by it today.

In 2008 people woke up to a tsunami of hunger sweeping the world. Although the prospect of rising hunger has loomed on the horizon for years, the present crisis seemed to come out of the blue without warning. Food riots spread through many countries in the global South as people tried to obtain a portion of what appeared to be a rapidly shrinking supply of food, and many governments were destabilized.

# Another perspective on peak oil

While we will be increasing [production], it's going to be at a much higher cost. That cost, depending on what the project is and what kind of time frame you're looking at, maybe's \$70-\$80 a barrel is effectively the full development cost to be able to do it. So what you are seeing in Canada, in terms of very high cost [to] increase production, you are seeing

in different parts of the world. Most obviously in places like offshore Brazil, deep water Gulf of Mexico, where the economic cost for bringing on new barrels is not far off from what it costs bringing on new barrels in the oil sands; meaning these are very expensive projects. So the marginal costs of these new barrels are extremely, extremely high.

So while you may have the ability to build an increase in production, it's going to be increasing production at a much different price environment than we've seen in the past. So, it's a long way of saying, I would generally speaking agree with the theory behind peak oil in that the cheap barrels have largely been found and the new barrels are going to come from much more expensive sources. If you look at marginal supply economics, the world's going to have to get used to

#### Gas demand set for first fall in 50 years

Global demand for gas is expected to fall in 2009 marking the first annual decline since the Fifties, a new report warns.

The International Energy Agency's (IEA) annual Natural Gas Market Review said: '[We] project that for the first time in 50 years, the world will witness a drop in global gas demand.'

It says that after a 1% increase in gas consumption in 2008, gas demand among OECD countries fell by 4% during the first quarter of 2009 - January to March - and is expected to decline further this year.

# Qatar minister: Tough year ahead for oil and gas

DOHA (AFP) – Qatari Oil Minister Abdullah bin Hamad al-Attiyah warned on Tuesday that the global economic downturn will continue to hit the Gulf state's vital energy exports.

"The fallout from the economic crisis does not only hit financial institutions but other sectors, such as oil and gas," Attiyah told the fledgling Gas Exporting Countries Forum.

"The last quarter of 2008 was difficult for the energy industry and all the indicators show that this year it will witness a tough period as well."

#### Few Bidders to Develop Iraqi Oil and Natural Gas Fields

BAGHDAD — The Iraqi government stumbled once again on Tuesday in its frequently delayed effort to award development rights to its most valuable oil fields. In a public auction it largely failed to attract the lucrative offers it sought from dozens of international oil companies invited to the bidding.

After the daylong event, which was broadcast live on national television, the government came away with just a single deal struck from among the six giant oil fields and two gas fields it had put up for bid.

# Iraq reviews oil tenders after foreign snub

BAGHDAD (AFP) – Iraq's cabinet was reviewing on Wednesday new bids from foreign energy firms to develop the country's oil and gas reserves, a day after being widely snubbed by companies unhappy over the terms on offer.

"Ministers are meeting and discussing the issue," an official in Prime Minister Nuri al-Maliki's office said after a deal was struck on Tuesday to develop only one of six oil fields up for tender.

#### Anxious Oil Giants Pass on Iraq

BAGHDAD -- Iraq's effort to woo foreign energy companies to help resurrect its ailing oil fields fell flat Tuesday, as most companies balked at the financial terms offered by the government despite the lure of the country's vast reserves.

# No need for Iraq to sell its future cheap

The good news for Iraq is that big oil needs it more than vice versa. BP, for example, the successful bidder in one of the auctions yesterday, agreed to accept a fee of just \$2 a barrel in return for the right to help develop the Rumaila field.

Iraq needs to hold its nerve. In a world where proven resources are dwindling and new oil finds are becoming scarcer – and tougher to exploit – it can afford to play hardball with companies moaning about the terms on offer. Big oil will eventually come back to the table.

# ANALYSIS - Iraq oil auction dashes majors' bonanza hopes

For Western oil majors which have struggled to add new reserves in recent years - as the biggest reserves holders like Saudi Arabia and Russia keep their biggest fields for their state oil companies to develop - Tuesday's auction offered an unrivalled opportunity.

Investors feared the companies might even have been prepared to agree to loss-making deals simply to gain a foothold in such a prolific area.

But in the end, the two sides differed wildly on the value of the opportunity on offer and

largely stuck to their guns.

#### Oil Rises Before Report Forecast to Show U.S. Supplies Shrank

Bloomberg) -- Oil advanced before the release of a report predicted to show that U.S. crude supplies contracted for a fourth week, stoking optimism that fuel demand will recover as the recession abates.

The Energy Department will probably report today that crude-oil stockpiles dropped 2 million barrels last week, according to a Bloomberg survey. Yesterday the industry-funded American Petroleum Institute said crude supplies fell by 6.8 million barrels. Oil was also boosted by rising European equities.

"It was an extremely huge stock draw," said Hannes Loacker, a Raiffeisen Zentralbank Oesterreich analyst in Vienna. "If we get confirmation of that data in the Energy Department, that will help prices."

# China's latest fuel price rise triggers public debate

BEIJING (Xinhua) -- China's latest fuel prices hike, which is intended to reflect rising international crude cost, sparked widespread debate as consumers grumbled that the record domestic prices were even higher than those in the United States, the world's biggest oil consumer.

The 9-10 percent state-set price rise in gasoline and diesel as of June 30, the second in a month, forced the Chinese motorists to pay more than 3 U.S. dollars a gallon, compared to an average of 2.69 U.S. dollars a gallon in the United States last week.

# China oil flow up on new Kazakh pipe

China secured access to vast oil deposits in western Kazakhstan today after the energy-rich Central Asian nation said it had completed the expansion of a major oil pipeline to its eastern neighbour.

A Kazakh company in charge of the project said the first test shipment of oil had been successfully completed through the newly built Kenkiyak-Kumkol pipeline.

#### 10 arrested in oil, gas thefts at Texas companies

ODESSA, Texas – Ten people have been arrested in the theft of about \$2 million worth of oil and gas condensate from oil companies and producers in West Texas.

The arrests Tuesday came following a seven-month investigation by a regional oil theft task force.

#### Busted: Russia casinos forced to close down

MOSCOW - Nearly two decades after the Soviet collapse set Russia's roulette wheels spinning again, Prime Minister Vladimir Putin is calling in the chips on the gambling industry — a symbol of the glitz and excess of Russia's oil-fueled boom.

#### NDP insists it won't neglect peak oil

On June 27, Horgan told the *Straight* at the Empire Landmark Hotel that it "troubles" him that people think the NDP has let the public down on this issue. "Peak oil is going to have a profound impact on how our social and economic policies evolve in British Columbia," Horgan stated. "I have said that repeatedly, but it may not have made its way to the streets of Vancouver."

#### Peak cottaging?

Like it or not, when we come out of this recession we are going to be paying a whole lot more for energy. That simple fact will change life in Haliburton County in ways that are difficult to imagine.

If Canadian economist Jeff Rubin is correct, and he has a history of being correct, the price at the gas pumps will go up to \$2 a litre when the recession ends and keep right on going up from there.

That \$2 price, like the \$1.30 we paid last summer, will not be the result of some sinister right-wing conspiracy. It will be set by the law of supply and demand.

Maine: Fox Islands celebrate wind power groundbreaking



Speakers throughout the morning, including Conkling, Fox Islands Electric Cooperative President Elliot Brown, Diversified Communications Chairman Horace A. Hildreth, Cianbro Corporation Chairman Peter Vigue and EOS Ventures, LLC President Tyler Fairbank, all had high praise for George Baker, the chief executive officer of Fox Islands Wind.

Baker is a professor of business administration at the Harvard University Business School who lives on Frenchboro.

"I was impressed at how he spoke with a vision for this community," said Vigue, who met Baker at the Vinalhaven home of energy expert Matthew Simmons last year.

# Wind + water = untapped energy: An abundance of power exists above Earth's oceans, study finds

(PhysOrg.com) -- Wind energy over the planet's oceans is a vastly underutilized renewable resource, according to UC Irvine researchers.

At 80 meters above the ocean - the typical wind turbine height - more than 50 percent more power is available than at 10 meters, the height important to the shipping industry upon which previous wind estimates were made.

# Federal court upholds Calif. ship regulations

SACRAMENTO, Calif. – A federal court judge in Sacramento has upheld California regulations that require oceangoing ships using the state's ports to use cleaner fuel in order to reduce harmful emissions.

# Dependence on Big Oil, Dirty Coal Could Cost U.S. \$30 Trillion By 2030

The High Cost of Fossil Fuels: Why America Can't Afford to Depend on Dirty Energy found that our national bill for fossil fuels in 2008 exceeded \$1 trillion for the first time ever – more than was spent on education or the military. And by 2030, we could spend as much as \$1.7 trillion per year on fossil fuels – an additional \$1,500 for every man, woman, and child nationwide. The report also includes state-by-state data.

"The high fossil fuel prices we paid in 2007 and 2008, which crushed our economy, will soon become the new normal, unless we kick our dependence on fossil fuels," said Tony Dutzik, senior policy analyst for the Frontier Group and a co-author of the report.

#### G8 summit to seek 80% emissions cut by 2050

TOKYO (AFP) – The Group of Eight rich nations summit in Italy next week is likely to call on industrialised countries to cut greenhouse gas emissions by 80 percent by 2050, a report said Wednesday.

The reduction target is in the draft of a declaration to be issued at the end of the July 8-10 summit in L'Aquila, Italy, the Nikkei economic daily said, without naming its source.

#### Climate in the Senate

The House's approval last week of a bill capping greenhouse gases was a remarkable achievement, almost unthinkable six months ago. Yet all of the hard work — the hearings, the negotiating, the arm-twisting — will add up to zero if the Senate cannot be persuaded to do the same, and preferably better. The country would be left with an outdated energy policy and the planet would be stuck with steadily rising emissions.

The Senate will not be an easy sell. It has rejected less ambitious climate bills before. While 60 filibuster-proof votes are needed, only 45 Senators mostly Democrats, can be counted as yes or probably yes. There are 23 fence-sitters and very little Republican support.

# Voinovich Says 'Crap' in Climate Bill Will Stall U.S. Passage

(Bloomberg) -- A House-passed bill favored by President Barack Obama to curtail global warming contains "a lot of crap" that will probably delay approval of the measure this year, Ohio Republican Senator George Voinovich said.

It would take a "miracle" for the legislation to pass the Senate before United Nations climate talks in Copenhagen in December, Voinovich said. "You've got a bill that is 1,200 pages, and there is just a lot of crap in there," he said.

## China unhappy with US climate bill

The United States set the bar too low and offered the world a poor example when it passed its climate change bill on Friday, according to a senior Chinese climate change official.

# Canada, Russia Considered Climate 'Bad Boys' Among G8 Nations

(Bloomberg) -- Canada and Russia, both northern and oil-rich, are making the least progress in cutting carbon- dioxide emissions among the major economies, a new study shows.

Canada is furthest from its reduction target for the greenhouse gas under a global treaty and has made little progress compared with other Group of Eight members, according to the report commissioned by German insurer Allianz SE. Output of CO2, released by burning fossil fuels such as oil and coal, is the second-highest on a per-capita basis after the U.S., which is writing its first legislation to curb carbon emissions.

#### We Can Solve the Climate Crisis

The report found that eight of the nine technologies -- the exception was plug-in hybrids -- could feasibly reach gigaton scale in a bit more than a decade. Paul's report is significant, in part, because it reflects the thinking of a many in a hurry -- other studies, particularly the very good McKinsey study on how to avoid climate disaster, look out 20 or 40 years.

"For investors, those time frames just don't make any sense," Paul told me. "By 2030 or 2050, we'll either be retired or dead. So we needed something immediate, so we can be held accountable, so we can see the results in a a time frame that matters for investors and entrepreneurs and business leaders -- 10 years."

#### Arctic Permafrost Carbon 'Underestimated,' Poses Climate Threat

(Bloomberg) -- Arctic permafrost, the frozen soil beneath polar snow and ice, contains twice as much carbon as previously estimated and may spark a further increase in temperatures should global warming continue.

A study by the Commonwealth Scientific and Industrial Research Organization, or CSIRO, showed a 10 percent reduction of permafrost through warming could add 80 parts per million more of atmospheric CO2, corresponding to a temperature gain of about 0.7 degrees Celsius (3.4 degrees Fahrenheit).

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