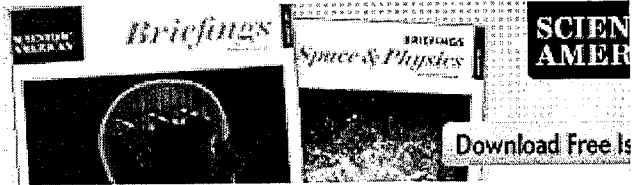


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Net-Zero Energy Buildings Take Hold in U.S.

Buildings that produce as much energy on-site as they consume are becoming more common

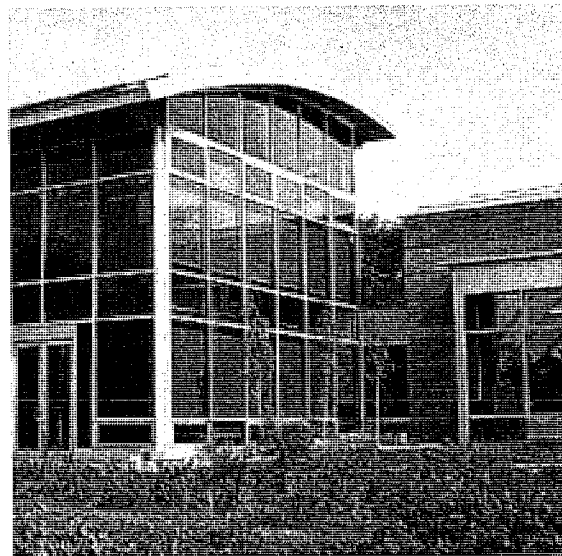
By Lacey Johnson and ClimateWire | March 7, 2012 | 15

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A weak economy and rising energy prices have led to a buzz over building efficiency. Light bulb regulations, LEED and Energy Star ratings for homes and appliances, stricter construction codes, and government incentives are all parts of a national effort to cut energy waste in the building sector.

Nearly 40 percent of the nation's energy is consumed by homes and commercial buildings, which means that making them



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more efficient would not only save money but also drastically reduce carbon emissions.

So a handful of builders are taking the idea one step further: Why construct a building that uses less energy when we can make one that uses no energy at all?

That's the philosophy behind "net-zero" buildings, and they have been springing up all over the country in recent years. By the purest definition, a net-zero building produces all the renewable energy it needs on site, drawing no more power from the grid than it gives back.

Considering that a shack in the woods is technically net zero, the concept isn't exactly new. But advances in technology over the past decade have made it easier to design sophisticated buildings that produce 100 percent of their own energy. At least 21 commercial buildings in the United States meet net-zero standards, according to a study released yesterday by the New Buildings Institute and the Zero Energy Commercial Building Consortium.

They run the gamut from offices to libraries to elementary schools. Researchers identified eight more unverified buildings that may also be net zero and an additional 39 that would classify if they installed more on-site renewable energy systems, plus dozens more under construction.

"We are seeing commercial examples of larger and more complicated buildings, which I think is a positive sign," says Stacey Hobart, the communications director at the New Buildings Institute. "Most of these buildings are smaller buildings, and most of them are early market adopters." Universities and local governments have also been responsible for much of the construction, largely because "they have a charge to say, "This is a net-zero building,"" explains Hobart.

Expanding the possibilities

The first commercial-scale net-zero building was a center for environmental studies, completed at Oberlin College in Ohio in 2000. At that time, the project was largely an experiment in sustainable architecture.

"We intended to create not just a place for classes but rather a building that would help to redefine the relationship between humankind and the environment -- one that

Some new buildings aim to produce as much energy as they consume

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would expand our sense of ecological possibilities," said David Orr, the director of Oberlin's Environmental Studies program, at the center's groundbreaking ceremony in 1999. "We now know that such things are possible -- that buildings can be designed to give more than they take."

Commercial net-zero construction has steadily increased since then, with the number of completed buildings more than doubling since 2008, according to the latest study. Thanks to advances in structural insulation, energy-efficient appliances, new government incentives and the falling price of solar, expensive green-building projects -- like net zero -- are now within reach. And they don't always require a commercial-scale budget.

When Frank Walker first stepped inside a net-zero house in Denver two summers ago, he knew he wanted to try building one himself. As the chief operating officer of a major Colorado homebuilding company, Oakwood Homes, he couldn't believe such a structure was possible.

"It was a 102-degree day in Denver, and the house was 72 degrees with no air conditioning and no cooling systems whatsoever," he remembers. "It's like building a Thermos."

The house was contracted by a local resident who had researched German "passive houses" and wanted to have one of his own. The design was so efficient, says Walker, that "you could heat the house using a hair dryer."

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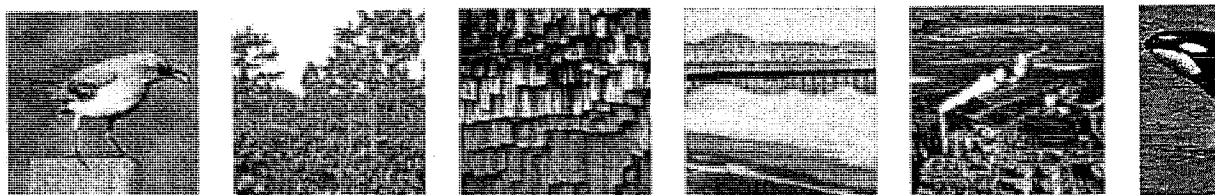
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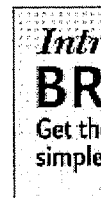
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\$188,000 homes in Colo.

Inspired by what he saw, Walker decided to replicate the building. With the help of students from a University of Denver work-study program, his company was able to complete two experimental net-zero homes -- the second of which recently sold for under \$190,000.

Having perfected its net-zero design, Oakwood plans to start marketing more of the homes in Colorado later this year. Each four-bedroom house will feature rooftop solar panels, a high-efficiency tankless water heater, super-insulated windows and airtight construction.

Foll



With a \$188,000 price tag -- only \$9,000 more than Oakwood's Energy Star version of the same house -- it could soon be the most affordable net-zero home in the country. With about \$750 in energy savings predicted annually, homeowners are expected to see a full return on their investment in less than 12 years.

"We've hit a price point that no one else has been able to fit in our marketplace," says Walker, and "we've gotten a lot of great response."

At least a dozen other U.S. commercial homebuilders have begun to offer net-zero residences. The Los Angeles-based company KB Home recently introduced a net-zero option for its houses in parts of Florida, Texas, Colorado and California. Another company, Nexus EnergyHomes, is building 59 duplex units in Frederick, Md., and 14 additional houses near the Chesapeake Bay. The duplexes are about 1,700 square feet -- the same size as Oakwood's homes -- and sell for \$275,000 and up.

Each commercial and residential building employs a unique blend of renewable energy and architectural design to reach net zero, but there are some characteristics that nearly every structure shares. Most use solar panels to achieve the bulk of their power and have numerous windows to minimize the need for artificial light. Tight insulation and low-energy appliances are also key elements. Paradoxically, most buildings actually receive electricity bills -- though not very many.

This happens because a net-zero building may need to draw electricity from the grid to power its lights at night, for example, then returns that energy the next day, when its solar panels are most efficient. Likewise, residents may have to pay for heating costs in the winter, but in the summer they would receive a check for their overflow of energy.

Transitioning into a net-zero world without electric bills may sound like a no-brainer, but the technology still faces significant obstacles.

Cost and space remain drawbacks

The success of a building depends largely on the people who use it. If occupants aren't committed to reducing their personal energy use by shutting windows and turning off appliances, a net-zero structure can easily lose its status, becoming just another "efficient" building.

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Some areas are also poorly suited for net zero. A building needs enough sunshine to power its solar panels, and that's not always possible in a densely populated city, where tall buildings can cast shadows onto shorter ones. It's also tough to keep structures cool in very hot and humid climates, like in the Southeast, says Hobart. But most experts agree the main barrier is still the price.

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"Most building owners aren't going to add 1 percent to their costs. They are just going to build to code," Hobart says. And retrofitting existing buildings to be net zero becomes even costlier.

"When you put all the pieces together, the payback becomes so great that it doesn't make sense," Walker says of the retrofits. Aside from solar panels, thicker windows, and a new heating and cooling system, buildings often need far more insulation than the walls can hold. That requires shrinking rooms or expanding the exterior, which isn't cheap. Walker believes net-zero upgrades are for people who "are less worried about payback and more concerned to do something good for the environment."



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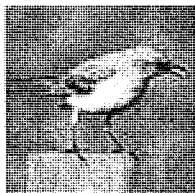
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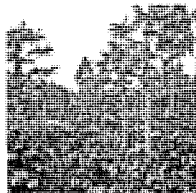
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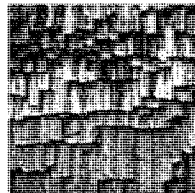
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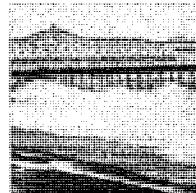
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Buildings that produce as much energy on-site as they consume are becoming more common

By Lacey Johnson and ClimateWire | March 7, 2012 | 15

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Net-zero construction may not be dominating the industry any time soon, but with countless commercial and residential projects in the works, the trend shows no signs of slowing down. Experts say strong government support for building efficiency, coupled with falling costs, means we will likely see more and more net-zero buildings.

"Lofty goals have been set for achieving zero-energy buildings by 2030," says Dave Hewitt, executive director of the New Buildings Institute. "The really good news is extremely energy-efficient buildings are being demonstrated in a multitude of climates and across building types. This is certainly a good sign for the future of zero-energy buildings."

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The New York Times

Green

A Blog About Energy and the Environment

MARCH 7, 2012, 12:32 PM

Canadian Official Defends Oil Sands

By JOHN M. BRODER

Alison M. Redford, the premier of Alberta, said Wednesday that the debate over Canada's oil sands development and the construction of the Keystone XL pipeline was tainted by a campaign of "misleading and false information" from opponents.

Speaking at a breakfast for reporters in Washington, Ms. Redford said that Alberta was sitting atop the third-largest proven oil reserves in the world and said it was in the short- and long-term interests of Canada and the United States to extract it, ship it, refine it and burn it.

Bloomberg News
Alison M. Redford

"This is a resource for which demand is only going to grow," said Ms. Redford, a lawyer and politician who turned 47 on Wednesday. "There is no question there will continue to be demand for it. And there is no question there will continue to be questions about our province's ability to produce it responsibly."

She said that Alberta had some of the toughest environmental regulations in the world and that the land where the heavy oil is mined was being rapidly reclaimed.

Environmentalists contend that extracting oil from tar sands is an extremely energy-intensive enterprise that significantly worsens global warming. James Hansen, the well-known climate scientist at the National Aeronautics and Space Administration, has said that fully exploiting Canada's oil sands means "game over" for the global climate.

Ms. Redford acknowledged that mining the oil sands creates greenhouse gas emissions. "There's no sugar-coating that," she said, while adding that it adds only one-tenth of 1 percent to total global emissions.

Turning to the controversy over the Keystone XL pipeline, which a Canadian company wants to build to ship the Albertan oil to refineries along the Gulf Coast, Ms. Redford said that the project would provide mutual energy, economic and jobs benefits to Canada and the United States. She said that if the pipeline is evaluated on its merits, it will ultimately be approved.

President Obama first delayed and then rejected the project, saying that more environmental review was necessary. But he encouraged the builder, TransCanada, to

resubmit its permit application and he has given every sign that he will approve the project after the November election.

Ms. Redford is willing to wait. "There is some political concern — I'm not denying that," she said. She added that she was "very optimistic" that the United States would approve the plan, which is critical to Alberta's oil-dependent economy.

"There really is an energy economy in Alberta, and we're going to continue to build that economy," she said. "We're never going to be dress manufacturers in Alberta."

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YAHOO! NEWS

'SimCity' game rebuilt for age of climate cha



By Glenn Chapman | AFP – Thu, Mar 8, 2012

Climate change is coming to SimCity.

A new version of the city-building computer game that factors in real-world consequences has received endorsements from Twitter co-founder Biz Stone and the director of the Academy Award-winning film "An Inconvenient Truth."

"We are updating SimCity with technology of today and introducing it to a new generation of players," game vice president Lucy Bradshaw said at this year's Game Developers Conference in San Francisco.

"It gets under your skin; exposes you to the idea of cause and effect and that choices you make have consequences," she said.

Millions of people have played SimCity since the computer game designed by Will Wright. The original title won a broad, devoted following and led to a successful franchise of "SimCity" games that manipulate worlds and animated characters in simulations of real life.

"Sims 3 Showtime" software, released on Tuesday as an addition to the latest version of the game, offers fantasies of becoming famous singers, acrobats, magicians or DJs.

The \$40 expansion pack adds a host of features, including one allowing players to send their cities to other players via the Internet with a capability called "SimPort."

While the franchise has thrived, it has been nearly a decade since the release of the last major SimCity title for laptop computers. A Maxis team will have a fresh SimCity title ready in 2013, according to game executives.

Along with rich 3-D graphics, the game will have a new simulation engine that enhances the ramifications of urban design decisions past borders to affect neighboring cities.

"In 'SimCity' resources are finite, you struggle with decisions people are struggling with in real life. The decisions you can have a global impact," Bradshaw said.

"Be a polluter and you are ultimately going to affect your friends' cities... Will you have ever or the sludgiest, most yikes-worthy SimCity ever?"

Maxis collaborated on the title with Games For Change, a group devoted to the creation learning about social issues.

"I love the game," said "Inconvenient Truth" director Davis Guggenheim, who played a

"Climate change is the biggest crisis of our time, but there is a disconnect because it is r

"When you play 'SimCity' it is in your face; if you build a coal power plant you feel the c
water table getting dirty, and your people getting angry."

Twitter co-founder Stone is also among the early fans of the new "SimCity," which he sa
initiative to support systems that help make "better humans, a smarter world and a hea

Stone left his day-to-day role at Twitter last year to devote time to Obvious Corporation
Twitter co-founder Evan Williams and Jason Goldman.

"While I'm not a gamer I understand the learning power of play," Stone said.

"Learning the cause and effect and the impact you could have as an individual or a corp
overview puts us in that frame of mind."

Bradshaw noted that 'SimCity' has always blended realism and fantasy, "so you never k
trundle around a corner and blow your buildings down."

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India Balks at Greenhouse Gas Emission Cuts

The developing nation's interpretation of climate change talks in Durban suggests it will not act to curb climate changing emissions

By Lisa Friedman and ClimateWire | Thursday, March 8, 2012 | 12

India appears to be pressing the reset button on its international climate change commitments.

In a submission to the U.N. Framework Convention on Climate Change last week, India declared it would not even consider scaling back more greenhouse gas emissions until after 2020 -- and then would do so only in exchange for Western dollars.

It's an interpretation of the Durban Platform, reached after a hard-fought battle at the U.N. negotiations in Durban, South Africa, last year, that flies in the face of how the United States and Europe view the agreement. But, many note, it's also part of a diplomatic dance countries have long engaged in -- inching forward, then backing away, before inching forward again.

"Parties understood exactly what was going on in the discussions in Durban about this new legal agreement," said Todd Stern, the United States' special envoy for climate change.

The submissions explore ways countries can cut carbon emissions beyond the pledges they made at the 2009 Copenhagen, Denmark, climate summit. But they also represent the first opportunity nations have had to define how they viewed the Durban outcome.

Some, like India, Bolivia, Pakistan and Ecuador, used it to squeeze words that the United States refused to allow to appear in the Durban Platform back into the conversation. Specifically, they maintained, the concept of "common but differentiated responsibilities" remains a core principle of the climate negotiations.

That principle, which embodies the idea that wealthy countries caused climate change and are primarily responsible for curbing emissions, has come to signify a sense of fairness for developing countries. The United States believes developing countries that also are wealthy or major emitters hide behind the phrase to exempt themselves from legally binding mitigation measures.

Old bargaining positions reappear

At the United States' insistence, the Durban Platform doesn't mention the phrase. According to the U.S. interpretation, the Durban agreement calls for all major emitters to, for the first time in history, by 2020 be held to the same legal obligations in the quest to cut carbon.

Stern this week said that despite differences in views outlined by India and some other countries, he believes that idea remains clear.

"The notion that it was going to be applicable to all parties was, I think, understood by people to be a game-changer," he said.

Alden Meyer, director of strategy and policy at the Union of Concerned Scientists, said he suspected the Indian delegation still felt stung by having its top issue of equity shoved from the final Durban text.

"This is a very strongly held principle, and I imagine there's still a little bit of anger," he said. "This is clearly a little bit of a shot across the bow that this discussion is not over. The real question is, can you get the discussion of equity into a more constructive and concrete level? Can you get down to brass tacks and stop talking about whose end of the lifeboat is sinking?"

For now, though, the question at hand is whether the emissions-curbing pledges that the United States, China, India, Brazil and dozens

of other countries made at the 2009 Copenhagen climate summit are robust enough. Climate scientists agree that even if fully enacted -- and some countries, like the United States, are far from even approaching stated goals -- the cuts won't avert catastrophic warming.

New positions begin to take shape

President Obama has pledged to curb America's carbon emissions 17 percent below 2005 levels by 2020. China says it will curb emissions intensity -- the ratio of carbon dioxide output per unit of gross domestic product -- by 40 to 45 percent by 2020, and India has agreed to cut energy intensity by 20 to 25 percent by that time period.

The Durban Platform called on nations to explore ways to beef up those pledges before 2020. India responded to that call by saying it is a question only industrialized countries must answer. Its diplomats noted that the U.N. Intergovernmental Panel on Climate Change's fourth assessment calls for developed countries to curb emissions 25 to 40 percent below 1990 levels by 2020, a goal they will likely miss.

Meanwhile, they argued that since the next version of the IPCC report won't be out until 2015, "the only available time frame for making scientific assessment of the mitigation efforts by all Parties is the post-2020 period."

Meyer called that a "pretty tortured reading of the [Durban] decision."

And a separate part of India's entry noting that its Copenhagen targets will be met "depending on provision of finance, technology and capacity building support by developed country parties" raised Stern's alarm bells. He noted that neither the Copenhagen Accord nor a subsequent agreement in Cancun, Mexico, promised finance in return for meeting 2020 pledges.

"We don't read the Copenhagen Accord or the Cancun Agreements as saying that. We do not think that the firewall was knocked down, but it was chipped away at in Copenhagen in the first instance."

America's submission, meanwhile, doesn't offer any concrete ideas of its own for raising ambition levels. Stern in the past has made clear he does not expect countries that only recently offered up pledges to offer to curb even more emissions by 2020.

Varying degrees of urgency

Instead, it focuses on some potentially practical areas: proposing that the U.N. climate regime come up with ways to support a new U.S.-led initiative aimed at curbing emissions of black soot, methane, hydrofluorocarbons and other so-called short-lived climate pollutants; removing subsidies for fossil fuels, something the Obama administration has long called for; and "addressing aviation and maritime emissions" under the respective agencies that regulate them. The Obama administration, however, is fighting a European law that is now working to reduce airline emissions and could be gearing up for a maritime fight.

On the other end of the spectrum, the European Union, the Alliance of Small Island States and the group of least developed countries, led by Gambia, offered a spectrum of practical ideas for pushing countries to do more. Those three groups formed a key alliance during the Durban conference that forced the United States and major emerging economies like India and China to commit to negotiating a future broad climate deal that binds all big emitters to cut carbon.

All three submissions quoted extensively from a recent U.N. Environment Programme study that exposed a 5-gigaton gap between the emissions countries had pledged to curb and what it will take to avert catastrophic global warming. But the authors also argued that it's technically feasible for countries to deliver almost 60 percent of the reductions needed to keep below a 2-degree-Celsius global temperature rise above preindustrial levels.

"The EU holds firmly to the commonly agreed objective of keeping the global mean temperature increase below 2°C," the bloc's diplomats wrote, calling for "urgent actions" to help countries meet their Copenhagen pledges and close that gap.

Small island nations, meanwhile, called for a series of meetings throughout the year, including a workshop on enhancing mitigation ambition at the United Nations' midyear climate meeting in Bonn, Germany, in May and a ministerial conference on the issue in New York at the U.N. General Assembly in September.

The discussions, they said, should culminate with the adoption of more ambitious economywide emission reduction targets by developed countries and mitigation action plans from developing countries at the next major U.N. climate conference slated for Doha, Qatar, in November.

"They're all sort of taking a pragmatic approach," Meyer said of the E.U., small island nation and least developed country submissions. "They're all sort of saying, 'Let's get an urgency.' Our task is to figure out how to close the existing gap."

Talks likely to continue, but slowly

Japan, meanwhile, focused on ways to curb more emissions by midcentury instead of by 2020; Saudi Arabia, like India, insisted that the burden of doing more to cut emissions falls squarely on the shoulders of industrialized countries -- which, within the world of U.N. climate talks, does not include Saudi Arabia, despite its wealth and vast oil resources; and Qatar, which is hosting the next major climate conference but which has historically played a quiet role in the talks, did not offer a submission.

Nigel Purvis, a former State Department climate negotiator who is now president of Climate Advisers consulting firm, said he wasn't surprised that some countries appeared to be walking back from pledges they made in Durban. He said that some in Europe overhyped the outcome of that conference, and developing countries like India are pushing back to show they didn't give up too much.

"Durban made significant progress, but in no way are the old issues behind us. The U.N. negotiations have been exceptionally slow for decades, and we've got a hard slog ahead."

He also predicted that the United Nations' history of pushing countries to cut more carbon doesn't bode well for diplomats' ability to raise the level of ambition before 2020.

"Every year, the COP [Conference of Parties] takes up the adequacy of commitments. Every year, there is no agreement, and the agenda item is forwarded to the next year," he said.

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Monday, March 19, 2012 Updated 08:30 AM ET

March 8, 2012

In U.S., \$5.30 Gas Would Force Major Life Changes

Most Americans want the president and Congress to take action on gas prices

by Frank Newport

PRINCETON, NJ -- Americans on average say gas prices of \$5.30 to \$5.35 per gallon are the tipping point that would make them cut back on spending in other areas or make significant changes in the way they live their lives.

Suppose the price of gas keeps rising. At what price per gallon would it get so high that you and your family would be forced to make significant (changes in the way you live your life/cutbacks in your spending in other areas)?

| | Forced to make significant changes in the way you live your life | Forced to make significant cutbacks in your spending in other areas |
|-----------------|---|--|
| | % | % |
| Under \$4.00 | 14 | 17 |
| \$4.00-\$4.99 | 28 | 28 |
| \$5.00-\$5.99 | 30 | 31 |
| \$6.00-\$6.99 | 8 | 8 |
| \$7.00-\$9.99 | 6 | 5 |
| \$10.00 or more | 4 | 5 |
| Mean | \$5.35 | \$5.30 |
| Median | \$5.00 | \$5.00 |

March 5-6, 2012

GALLUP

These responses are based on questions included in Gallup interviewing conducted March 5-6. The price of a gallon of regular gas has jumped over the last several months to an average of \$3.76 on March 8 from an average below \$3.35 in November, according to the AAA Daily Fuel Gauge report.

The two questions about the implications of the rising price of gas on spending and lifestyle changes were asked of two separate random split samples of about 500 respondents each.

Americans appear to make little distinction about the impact of gas prices, whether the question is

worded as "significant cutbacks in your spending in other areas" or "significant changes in the way you live your life."

The responses varied widely, with 14% to 17% of Americans saying a price of less than \$4 per gallon would be high enough to cause them to change their lifestyle or cut back on spending elsewhere. Another 28% each say a price point in the \$4 range would cause these changes. The overall average "tipping point" price of roughly \$5.30, however, suggests there is room for a considerably greater increase in gas prices before Americans say prices will begin to have widespread, serious consequences on their spending and lifestyle patterns.

Americans Want President and Congress to Take Action on Gas Prices

Despite the finding that the price of gas is apparently not yet causing significant disruptions in Americans' lives, most Americans still want their elected representatives in Washington to address the issue. Eighty-five percent say the president and Congress should "take immediate actions to try to control the rising price of gas."

Do you think the president and Congress should or should not take immediate actions to try to control the rising price of gas?

| | Yes, should | No, should not |
|---------------------|-------------|----------------|
| | % | % |
| National adults | 85 | 13 |
| Republicans/Leaners | 90 | 8 |
| Democrats/Leaners | 81 | 18 |

March 5-6, 2012

GALLUP

Large majorities of both Republicans and Democrats say the president and Congress should take such actions, with Republicans and Republican-leaning independents slightly more inclined in that direction than Democrats and Democratic-leaning independents.

At the same time, a somewhat lower 65% of Americans believe that the president and Congress can in fact take actions that would control the rising price of gas, while 31% say the rising price of gas is largely beyond politicians' control.

Do you think the president and Congress can take actions that will control the rising price of gas, or is the rising price of gas largely beyond their control?

| | Can do things to keep price of gas from rising | Price is largely beyond their control |
|---------------------|--|--|
| | % | % |
| National adults | 65 | 31 |
| Republicans/Leaners | 74 | 23 |
| Democrats/Leaners | 62 | 34 |

March 5-6, 2012

GALLUP

Here again, Republicans are slightly more likely than Democrats to say politicians in Washington can do something about the price of gas.

President Obama may have been cognizant of these attitudes when, in his March 6 press conference, he listed a number of initiatives his administration has taken to attempt to curb gas prices, including doubling fuel efficiency standards for cars, developing clean energy technologies, and addressing potential speculation in the oil markets.

Republican presidential candidates are also sensitive to Americans' call for Washington to do something about the price of gas. One GOP candidate -- Newt Gingrich -- has gone so far as to proclaim that if elected president, he would bring gas prices back down to \$2.50 a gallon.

Implications

The price of gas has yet to reach a level at which average Americans say they would have to change their lifestyles significantly or cut back on spending in other areas. It appears that a price of roughly \$5.30 a gallon would be the tipping point at which the cost of gas would begin to have more widespread impact on consumer behavior.

Gas is far below \$5 a gallon now, on average, across America, but there are reports that \$5-per-gallon prices in many locations would not be out of the question by summer. If so, and if prices stay high, that could present problems for President Obama's re-election chances, which -- as is the case for all incumbents -- are significantly correlated with voter perceptions of the economy.

The president in a recent press conference spoke at length about his administration's efforts to control the price of gas, even though he admitted that he held no "silver bullet" that would do so in short order. These types of pre-emptive public statements are well advised, based on the finding

that most Americans want the president and Congress to take action to control the price of gas, and that a majority feel there are things these elected officials can do to accomplish this.

Survey Methods

Results for the questions included in this Gallup poll analysis are based on telephone interviews conducted March 5-6, 2012, on the Gallup Daily tracking survey, with random samples of approximately 500 adults each, aged 18 and older, living in all 50 U.S. states and the District of Columbia.

For results based on these random samples of national adults, one can say with 95% confidence that the maximum margin of sampling error is ± 5 percentage points.

Interviews are conducted with respondents on landline telephones and cellular phones, with interviews conducted in Spanish for respondents who are primarily Spanish-speaking. Each sample includes a minimum quota of 400 cell phone respondents and 600 landline respondents per 1,000 national adults, with additional minimum quotas among landline respondents by region. Landline telephone numbers are chosen at random among listed telephone numbers. Cell phone numbers are selected using random-digit-dial methods. Landline respondents are chosen at random within each household on the basis of which member had the most recent birthday.

Samples are weighted by gender, age, race, Hispanic ethnicity, education, region, adults in the household, and phone status (cell phone only/landline only/both, cell phone mostly, and having an unlisted landline number). Demographic weighting targets are based on the March 2011 Current Population Survey figures for the aged 18 and older non-institutionalized population living in U.S. telephone households. All reported margins of sampling error include the computed design effects for weighting and sample design.

[View methodology, full question results, and trend data.](#)

In addition to sampling error, question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of public opinion polls.

For more details on Gallup's polling methodology, visit www.gallup.com.

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YOU'RE REALLY INVITED TO GREAT BRITAIN IN 2012.

Pacific nation may move entire population to Fiji

The Associated Press

Updated 3/9/2012 8:06 PM

21



Vid

Fearing that climate change could wipe out their entire Pacific archipelago, the leaders of Kiribati are considering an unusual backup plan: moving the populace to Fiji.

St. P:
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Kiribati President Anote Tong told the Associated Press on Friday that his Cabinet this week endorsed a plan to buy nearly 6,000 acres on Fiji's main island, Viti Levu. He said the fertile land, being sold by a church group for about \$9.6 million, could be insurance for Kiribati's entire population of 103,000, though he hopes it will never be necessary for everyone to leave.

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By Richard Vogel, 2004 AP photo

A man fishes on a bridge on Tarawa atoll, Kiribati.

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"We would hope not to put everyone on one piece of land, but if it became absolutely necessary, yes, we could do it," Tong said. "It wouldn't be for me, personally, but would apply more to a younger generation. For them, moving won't be a matter of choice. It's basically going to be a matter of survival."

Kiribati, which straddles the equator near the international date line, has found itself at the leading edge of the debate on climate change because many of its atolls rise just a few feet above sea level.

Tong said some villages have already moved and there have been increasing instances of sea water contaminating the island's underground fresh water, which remains vital for trees and crops. He said changing rainfall, tidal and storm patterns pose as least as much threat as ocean levels, which so far have risen only

slightly.

Some scientists have estimated the current level of sea rise in the Pacific at about 2 millimeters (0.1 inches) per year. Many scientists expect that rate to accelerate due to climate change.

Fiji, home to about 850,000 people, is about 1,400 miles south of Kiribati. But just what people there think about potentially providing a home for thousands of their neighbors remains unclear. Tong said he's awaiting full parliamentary approval for the land

purchase, which he expects in April, before discussing the plan formally with Fijian officials.

Sharon Smith-Johns, a spokeswoman for the Fijian government, said several agencies are studying Kiribati's plans and the government will release a formal statement next week.

Kiribati, which was known as the Gilbert Islands when it was a British colony, has been an independent nation since 1979.

Tong has been considering other unusual options to combat climate change, including shoring up some Kiribati islands with sea walls and even building a floating island. He said this week that the latter option would likely prove too expensive, but that he hopes reinforcing some islands will ensure that Kiribati continues to exist in some form even in a worst-case scenario.

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"We're trying to secure the future of our people," he said. "The international community needs to be addressing this problem more."

Tong said he hopes that the Fiji land will represent just one of several options for relocating people. He pointed out that the land is three times larger than the atoll of Tarawa, currently home to more than half of Kiribati's population.

Although like much of the Pacific, Kiribati is poor — its annual GDP per person is just \$1,600 — Tong said the country has plenty of foreign reserves to draw from for the land purchase. The money, he said, comes from phosphate mining on the archipelago in the 1970s.

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YAHOO! NEWS

Greenland icesheet more vulnerable than thought



AFP – Sun, Mar 11, 2012

The Greenland icesheet is more sensitive to global warming than thought, for just a relatively small temperature rise would melt it completely, according to a study published on Sunday.

Previous research has suggested it would need warming of at least 3.1 degrees Celsius (5.6 degrees Fahrenheit) at industrial levels, in a range of 1.9-5.1 C (3.4-9.1 F), to totally melt the icesheet.

But new estimates, published in the journal *Nature Climate Change*, put the threshold at 1.4-5.8 C (2.5-10.4 F), although this would have to be sustained for tens of thousands of years.

Greenland is second to Antarctica as the biggest source of locked-up water on land.

If it melted completely, this would drive up sea levels by 7.2 metres (23.6 feet), swamping coastal cities.

If global warming were limited to 2 C (3.6 F), a target enshrined in the UN climate-change treaty, it would happen on a timescale of 50,000 years, according to the study.

Current carbon emissions, though, place warming far beyond this objective. If they were to continue, the icesheet would melt within 500 years and all would be gone within 2,000 years, the study says.

The probe is authored by scientists from the Potsdam Institute for Climate Impact Research and the Complutense de Madrid.

They say that the risk of total loss may seem remote, given the immense timescale.


But they also warn that their findings challenge many assumptions about the icesheet's stability under warming.

Earth's atmosphere has already warmed by 0.8 C (1.4 F) since the start of the Industrial Revolution, and carbon dioxide (CO₂) that is being emitted today will linger for centuries to come.

The icesheet is vulnerable to a kind of vicious circle, also known as a positive feedback loop, in which melting leads to more warming, which leads to more melting, and so on, as detailed in the paper.

YAHOO! NEWS

First Solar to build new solar plant for NRG

 REUTERS Reuters – Mon, Mar 12, 2012

(Reuters) - First Solar Inc will build a 26-megawatt solar power plant for power production, the latest deal between two of the biggest players in the U.S. renewable energy sector.

NRG is the majority owner of the 290-megawatt Agua Caliente plant that First Solar is building. The two companies previously teamed up on a 21-MW plant in Blythe, California, in 2009 and a 200-MW plant in New Mexico last year.

The new plant, the Avra Valley solar project, will be built by First Solar and use the U.S. technology of solar panels mounted on a tracker that tilts the panels to follow the sun's arc, the companies said on Monday.

Financial details of the deal were not released.

It is expected to be completed by the end of 2012, and will sell its output to UniSource Energy Services under a 20-year contract.

Shares in First Solar rose 1.7 percent in premarket trading to \$27.96 per share.

(Reporting By Matt Daily; Editing by Gerald E. McCormick)

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Energy Exchange

Financing Energy Efficiency Upgrades In Commercial Properties

By [BRAD COPITHORNE](#) | Published: MARCH 14, 2012



An Update

Last September, I wrote about some of the barriers that commercial building owners face when they want to finance energy efficiency upgrades for their properties. The post also discussed an innovative new strategy called an Energy Services Agreement (ESA) that removes several of these barriers. Since that time, several of the companies mentioned in that post have continued to innovate and make great progress. I thought it would be useful to provide an update on some of their key accomplishments.

Transcend Equity

Yesterday, Transcend Equity (Transcend) announced that they are being acquired by SCIenergy, a leading energy management solutions company. This acquisition should provide Transcend with access to additional technology, customers, capital and marketing resources. EDF is excited to see what the combined company can accomplish.

Transcend recently made a commitment to fund \$100 million of energy efficiency (EE) projects as part of the Better Buildings Challenge and broke ground on an ESA transaction in New York City. Transcend is partnered with Mitsui to provide equity capital for their projects.

Abundant Power

Abundant Power is a diversified EE finance firm that works on a variety of products including Property Assessed Clean Energy (PACE), On-Bill Finance and revolving loan funds in addition to the ESA structure. Recently, they have helped Alabama establish a \$60 million revolving loan fund and Washington, DC establish a commercial PACE program that could finance up to \$250 million of EE upgrades. Abundant Power has also committed \$100 million of financing as part of the Better Buildings Challenge.

Green Campus Partners

Green Campus Partners (GCP) has arranged over \$350 million in EE financings for public sector properties and completed two ESA transactions in 2011 for private universities. GCP committed to Better Buildings Challenge \$100 million of EE financings in 2011 and another \$200 million in 2012. The firm exceeded its target in 2011 and expects to do the same in 2012.

GCP has also worked with EDF on the Clean Heat NYC campaign and recently signed a major development agreement with St. Barnabas Hospital to finance their conversion away from dirty heating oil.

Groom Energy

Groom is a Boston based EE project developer that offers ESA-style financings for customers. To date they have been most active in the commercial and industrial space. Groom is also a thought leader in the Enterprise Smart Grid which uses advanced technology to monitor and reduce energy usage behind the meter. This morning, Groom published a comprehensive report on the topic.

Metrus Energy

Metrus Energy (Metrus) has had a very productive start to 2012 including a recent high-profile ESA project selection and a pipeline of advanced stage projects that totals \$50 million. Metrus has broadened the geographic diversity of its pipeline which now spreads across the commercial, industrial and institutional markets, with active projects under development in the financial institutions, media and entertainment, telecommunications, hospital, higher education and non-profit sectors. Metrus is on-pace to exceed its \$75 million investment commitment under the Better Buildings Challenge program. On the project implementation front, Metrus is actively advancing its existing ESA program with BAE systems with the addition of several multi-million dollar projects at new BAE sites. BAE Systems is a global company engaged in the development, delivery and support of advanced defense, security and aerospace systems. Metrus has also expanded its base of Energy Services Companies (ESCOs), contractors and energy utility channels by adding 25 new partners.

Carbon Lighthouse

Since launch in 2010, Carbon Lighthouse (CL) has completed projects at 70+ office towers, schools, community centers and industrial facilities in California and Oregon. CL achieves its mission by combining energy efficiency, retro-commissioning, demand response, solar and competition for pollution permits into one simple package for customers. CL primarily provides projects on a deferred compensation basis similar to an ESA, and can also provide customers with third party direct ESAs or utility On-Bill Finance and Repayment programs.

Conclusion

EDF has worked with each of these five firms and we are encouraged by their energy, focus and innovation. Each firm has a somewhat different business strategy and mix of products, but the EE market should be large enough to support a variety of business models. We look forward to continuing to work with these firms and others as this critical market grows in the coming years.

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Plug-and-Play Solar Panels Might Finally Be Here

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by Beth Buczynski

In today's high-tech world, consumers have come to expect things to be ready for use right out of the box. We don't like long instruction booklets or installation times for our gadgets, and the same is true for our solar panels. Homeowners who have hesitated to invest in a rooftop solar system because it seems to complicated to install will be glad to hear that Westinghouse Solar has launched what it calls the industry's first plug-and-play system.

The Instant Connect solar panel system eliminates cumbersome panel-to-panel wiring for both residential AC systems and commercial DC systems. Instead, Westinghouse incorporated a set of patented electrical connectors that are integrated directly into the sides of each solar panel—allowing the solar panels to automatically plug together when they are mounted on the roof.



Ordinary Solar

image via Westinghouse

As you can see from the image above, installing normal solar panels means navigating through hundreds of easy-to-lose parts that must be sourced, carried to the roof and manually assembled. According to Westinghouse, the problem is that manufacturers never viewed a rooftop solar installation as a single complete system. Instead, multiple manufacturers supplied their own components to installers who, until now, have had no other choice but to assemble all of these parts themselves.

Another disadvantage of the traditional solar system: because of its complexity, it has required a trained solar technician in order to be sure the installation was done correctly. Westinghouse claims that one of the main benefits of Instant Connect panels is that electricians, HVAC contractors and skilled Do-It-Yourselfers can install a system. Moreover, they can start small—with just one or two panels—and easily add onto the system. If my experience with assemble-it-yourself furniture is any indication, homeowners and contractors everywhere will welcome the smaller, simpler plug-and-play system.

Posted on March 21st, 2012

Tags rooftop solar, solar panels, Solar Power, Westinghouse Solar

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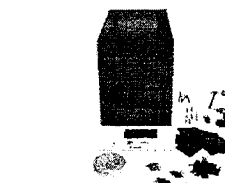
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178,000 Old Energy Hogs Unplugged In California

by [Kristly Hessman](#)

Tweet: 8 0

Thousands of Californians now have at least one new, energy-saving appliance in their home, thanks to the state's Cash for Appliances rebate program that recently drew to a close. The program, which started two years ago and ended last month, resulted in 178,000 household appliances, water heaters and cooling systems being recycled and replaced with high-efficiency models, the state said.

Funding to assist people in swapping out their old energy hogs came from the State Energy Efficient Appliance Rebate Program, part of the American Recovery and Reinvestment Act of 2009. Funds were awarded proportionate to population, so California received more than any other state, \$35.2 million, all of which went to consumers save for the \$1.7 million it took to administer the program.

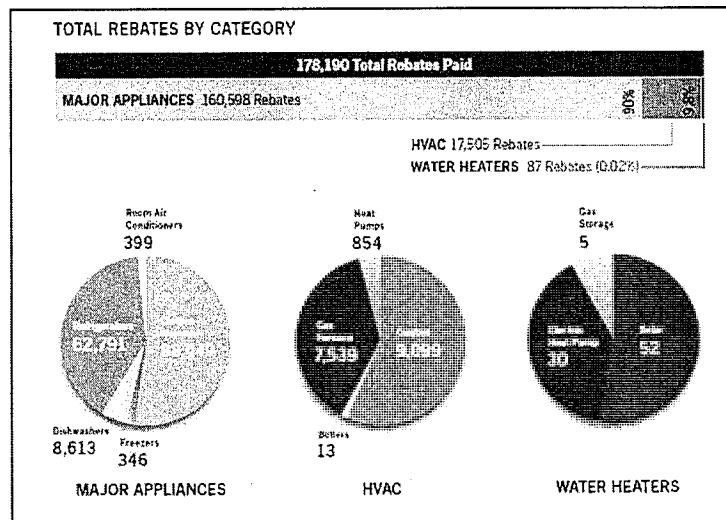


Image via California Energy Commission

"Strong demand in this first-ever program resulted in our ability to ensure that every dollar from the federal government got into the pockets of Californians and into our statewide economy," California Energy Commissioner Karen Douglas said in a statement. "When consumers replace their old, tired appliances with new energy efficient models, they will see savings on their utility bill almost instantly."

A total of 182 California retailers, businesses and utilities partnered with the Energy Commission to provide more than \$5.5 million for in-kind services to promote the program. Ninety percent of the rebates resulted in purchases of major appliances including: refrigerators, clothes washers, room air conditioners, freezers and dishwashers. Heating ventilation and cooling systems (HVAC) received nearly 10 percent of the program's share and less than 1 percent went toward water heaters.

The state said that compared to non-Energy Star models, the new ones consumers bought are saving more than 6 million kilowatt-hours per year, about the amount of power that 1,000 homes use annually. Clothes washers were the most popular home appliance to be recycled and replaced. More than 88,000 were purchased through the program.

Rebate amounts were up to \$50 for room air conditioners, \$50 for freezers, \$100 for clothes washers and dishwashers, \$200 for refrigerators and \$300 to \$750 for water heaters. HVAC

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