

Scientists say that the California Methane Event Will Affect the Entire World.

- The Methane Leak Will Drift To Ends Of The Planet and Will Affect All Life On The Earth
- It has already reached the Arctic Circle and started shifting the weather
- Cover-up has had bigger effect than most realize

[Accelerating Towards an Arctic Blue Ocean Event](#)

Posted by [xraymike79](#) i

Tags

[Abrupt Climate Change](#), [Antarctic Ice Melt](#), [Anthropogenic Climate Disruption \(ACD\)](#), [Arctic Blue Ocean Event](#), [Arctic Ice Melt](#), [Arctic Methane Emergency Group \(AMEG\)](#), [Capitalism](#), [Climate Change](#), [Collapse of Industrial Civilization](#), [COP-20 UN Climate Change Conference](#), [Environmental Collapse](#), [Extinction of Man](#), [Geoengineering](#), [John Nissen](#), [Mass Die Off](#), [Methane Time Bomb](#), [NASA'S CARVE project \(Carbon in Arctic Reservoirs Vulnerability Experiment\)](#), [Natalia Shakhova](#), [Paul Beckwith](#), [Peter Wadhams](#), [Sea Level Rise](#), [Stuart Scott](#)



“For the last 8,000 years we’ve had [relatively] amazing stability with constant weather temperatures and sea level. This stability has allowed the development of agriculture, civilization, industrialization, and a population of 7 billion and rising. This apparent stability is entirely a fluke. It is by amazing good luck that we are here today looking back on the past.”

~ [John Nissen](#) (12-4-2014), Arctic Methane Emergency Group

On the 4th, 5th, and 6th of December of the year 2014, the Arctic Methane Emergency Group (AMEG) held press briefings at the [COP-20 United Nations Climate Change Conference](#) that is taking place in Lima, Peru. For those unfamiliar with AMEG, here is a [summary](#) about them from their website that illustrates their proven track record of predictions:

AMEG is a group of determined scientists, engineers, communicators and others, dedicated firstly to establishing what really is happening to our planet (especially in the Arctic) using best scientific evidence, secondly to finding effective and affordable means to deal with the situation, and thirdly communicating these matters to authority and the general public.

AMEG aims to position itself in the centre ground – neither overstating nor understating the dangers of climate change. We are only alarmist in the sense that we are drawing attention to the more unpleasant realities of rapid Arctic warming and climate change, which have been downplayed or ignored by IPCC, unwittingly backed up by the media. We are determinedly optimistic as regards promoting an intervention strategy against all the odds, believing that mankind must have the collective intelligence to sort out the mess that mankind has got itself into.

In early 2012, AMEG gave evidence to the UK's Environment Audit Committee in their inquiry on protecting the Arctic. Much of our evidence was dismissed by government advisers, but all our evidence has been borne out by subsequent observations and events, including: the rapid rise in temperature of Arctic ocean and atmosphere; the dramatic decline of sea ice to a record minimum in September 2012 (following the exponential downward trend we had warned the committee about); the exponential increase in release of the potent greenhouse gas, methane, from the Arctic Ocean seabed; the exponential increase in melting of the Greenland Ice Sheet and consequent sea level rise; and the continuing disruption of the jet stream patterns we expected from Arctic warming, with resulting climate change in the form of weather extremes (despite a continuing hiatus in global warming), causing widespread crop failures and increase in the food price index above the crisis level, thus promoting civil conflict in a number of Asian and African countries where food prices have recently escalated, including most notably Syria.

Recent independent research, by scientists in AMEG and elsewhere, puts beyond reasonable doubt our assertion that the Arctic is locked in a vicious cycle of warming and melting, with the sea ice well past its tipping point. The current albedo forcing from snow and sea ice retreat is now estimated at around 0.4 to 0.5 Watts per square meter, averaged globally, amounting to 200 to 250 terawatts heating in the Arctic – more than mankind's total energy consumption. This albedo forcing is liable to double within a few years as the snow and sea ice further retreat. AMEG believes that the vicious cycle of warming and melting can only be broken by rapid intervention to cool the Arctic.

Although AMEG's research has concentrated on the Arctic and its effect on climate change, our study of IPCC's own evidence suggests just how serious are the long-term prospects of climate change due to both CO₂ and methane – far more serious than claimed by IPCC itself. The carbon budget for CO₂ – the allowable amount of CO₂ to avoid dangerous climate change – has already been used up, if one

takes into account the effect of methane and other greenhouse gases. If one also takes into account the climate forcing through albedo loss in the Arctic, then it is clear that the world is heading for extremely dangerous global warming by mid-century, even without Arctic methane. The only way to head off such a disaster is by reducing the level of greenhouse gases in the atmosphere well below their current levels, using a combination of aggressive reduction in both CO₂ and methane emissions but also by removal of CO₂ from the atmosphere.

SUMMARY OF AMEG PRESS BRIEFINGS:

- The tipping point for the collapse of Arctic glaciers has been breached and a runaway meltdown of the North Pole ice cap is currently unfolding. Arctic ice is decaying exponentially. (For a better visualization, picture [an area of ice the size of the state of Maine being lost every year since 1979](#)):

Highly reflective snow and ice is being replaced by dark sea water which is much more [absorbent] of solar energy causing the Arctic to warm much, much faster than the rest of the planet. This is destabilizing the atmospheric air circulation and ocean circulation. It is reducing the temperature gradient or difference between the equator and the pole which slows down the jet stream making it wavier with higher ridges and troughs. The jet stream has also become prone to stagnating in the same region. Very warm, humid southerly air can go to much higher latitudes than before, and cold arctic air can go to much southerly latitudes than before. This in itself is representing an enormous positive reinforcing feedback (not positive for humans) which is carrying more and more heat up into the Arctic and more and more coldness from the Arctic further south. What this will do is fracture the jet streams, leading us to a very different world, a less predictable climatic world where weather extremes such as torrential rains and extended droughts and floods come to dominate the weather system. The frequency, severity, and duration of these events all increase. These events also occur in regions where we did not have this before. For example, we get [80cm\(32 inches\) of snow in the Atacama Desert](#) which is the driest region of the planet – an unprecedented event. We get torrential rains where we had desert before. We get desert where we had moderate temperatures before. This is already happening now with just 0.85 °C of warming that the world has experienced since the start of the industrial revolution. This situation is very dependent on the conditions in the Arctic. As the Arctic continues to exponentially decline in snow and sea ice cover, these extremes will undoubtedly have to increase. The physics of the system says so. Because we now live in a warmer planet, there is more evaporation of the oceans leading to more water vapor in the atmosphere which fuels stronger storms. (The atmosphere can hold 7% moisture for every 1°C increase in average temp. Since we have increased the average temp by ~0.8°C from pre-industrial times, we have 6% more water vapor in the atmosphere). Because we have changed the chemistry of the atmosphere, we have changed the planet's weather and climate.

- Once we reach a point of no Arctic sea ice, perhaps as early as September 2015, this will create a “blue ocean event” in which all the heat from the sun will be able to penetrate Arctic waters, vastly accelerating the rate at which the Arctic is warming. Consequently, massive disruption of atmospheric circulation and ocean currents will ensue, thus locking the Arctic into an ice-free state. Global sea levels will rapidly rise and climate chaos will ramp up.
- The East Siberian Arctic Shelf, containing hundreds to thousands of times more heat trapping gases

than what are presently in the atmosphere, is in the process of releasing a catastrophic amount of greenhouse gases.

- Climate models do not take into account fractures, imperfections in the sea floor, regions of unfrozen subsea methane and other weak points in methane deposits. The models simply treat these areas as uniform slabs that will act in a predictable and symmetrical manner.
- Historical ice core and sediment records show numerous instances of the Earth having undergone abrupt climate change of 5-6°C or greater within a very short time period, one or two decades.
- The initial heat-trapping strength of methane(CH₄) is up to several hundred times more powerful than CO₂ during the first couple decades of its release into the atmosphere before degrading into CO₂.
- Collapse of Civilization is assured at a 4°C rise in global temperature.

Scientists consider a global warming of 6°C to be a threat to the survival of humanity, and anything beyond an increase of 2°C to be intolerable (as recorded at the Asia-Europe Summit by Khor, September 2006). – [Link](#)

- Even conservative IPCC projections of BAU predict a 4°C rise in global temperature by the end of the century and this estimate does not include the methane release from the Arctic seabed, permafrost and tundra. No where in its reports does the IPCC state that a 4°C would be catastrophic to civilization and life on Earth.
- Simply attempting to “adapt” to anthropogenic climate change is not a realistic option.
- The meme of money and profit holds sway over all of society.
- The operating system of global civilization, i.e. neoclassical economics, is fatally flawed and it will kill us.
- The consequences of predicted drought from global warming will make food production impossible in most of the world...

The Biggest Environmental Disaster In the History Of The West Coast Could Be Turned Into The Greenest Energy Solution

By Dean Lester

These headlines are shocking millions of people across the nation:

[California Declares State Of Emergency Over L.A. Methane Leak](#) (link) California Declares State Of Emergency Over L.A. Methane Leak ... of the most devastating environmental disasters in the history of California," Los ... from his community about pressing the governor to declare an emergency.

[Erin Brockovich: California Methane Gas Leak is Worst U.S. ...](#) (link) In the nation's biggest environmental disaster since the BP oil spill, ... for one- quarter of all California's methane emissions in just one month.

[State of Emergency Declared for Aliso Canyon, California, Because ...](#)(link) An Environmental Disaster Unfolding in CA ... California Gov. Jerry Brown declared a state of emergency Wednesday for a methane leak that ...

[Americas - California governor declares methane gas leak ...](#)(link) California Governor Jerry Brown declared a natural gas leak in a ... Screengrab, Environmental Defense Fund | Infrared footage ... a disaster," said Kelly Huston, deputy director of the governor's Office of Emergency Services.

[California governor declares emergency over Porter ... - CNN.com](#) ... (link) California governor declares emergency over Porter Ranch gas leak ... Southern California Gas Company's actions to stop the leak, track methane ... prior commitment to mitigate the environmental impact of the actual amount ...

[After At Least 2,300 Home Evacuations, Big Methane Leak Causes](#)(link) The area has been suffering from the effects of a methane gas leak at the ... The Environmental Defense Fund, which released a shocking infrared ... Others, though, criticized the governor for failing to address California's systemic ... was a disaster waiting to happen, but officials mostly ignored those risks.”.

Massive volumes of Methane gas are leaking into the air from the Porter Ranch disaster. Additionally, it is not California's only methane leak. It sounds like a sci-fi disaster film but it is a real event and it is happening now. Innovative technology companies have solutions at hand, which can turn the disaster into an upside.

Methane is a chemical. **Methane** ([/ˈmɛθən/](#) or [/ˈmiːθən/](#)) is a [chemical compound](#) with the [chemical formula](#) CH₄ (one atom of [carbon](#) and four atoms of [hydrogen](#)). It is the simplest [alkane](#) and the main component of [natural gas](#). The relative abundance of methane on [Earth](#) makes it an attractive [fuel](#), though capturing and storing it poses challenges due to its [gaseous](#) state found at [standard conditions for temperature and pressure](#).

In its natural state, methane is found both below ground and under the [sea floor](#), where it often finds its way to the surface and the [atmosphere](#) where it is known as [atmospheric methane](#).^[5] The Earth's atmospheric methane concentration has increased by about 150% since 1750, and it accounts for 20% of the total [radiative forcing](#) from all of the long-lived and globally mixed greenhouse gases (these gases don't include water vapor which is by far the largest component of the greenhouse effect).^[6] Methane [breaks down](#) in the atmosphere and creates [CH₃](#) with water vapor.

This is a “disaster”. That means that it is a very large scale event that affects a broad area and a large number of citizens.

Usually, in a disaster, bureaucrats hold press conferences and town halls but little gets done to solve the disaster. The California methane leak(s) have been going on for awhile, and have been getting worse. The problem comes from half of the State officials running around trying to implement solutions that are not routine, in a bureaucratic world entirely operated by routine. The first half of the officials are sincerely trying to solve the problem, but they are totally outside of their skill-set and not used to dealing in speed and over-night turnarounds. They are dedicated, devoted and sincere but they are stymied at every turn by the other half of the officials.

The other half of the State officials have kick-back payola deals with contractors who either caused the disaster or can help provide services for the disaster. They also get campaign financing, from those suppliers for their bosses. They also have promises of lucrative jobs, called “revolving doors”, after they leave their State jobs from those very same suppliers, as payola. When the first group of good guy “Try Hard” State officials runs into the second group of bad guy corrupt State officials, in the course of trying to solve the problem, the second bunch tells the first bunch: “No, No, you can only use my friends to do this”. Then the brick walls go up and nothing ever gets done. While those kinds of half decade long delays may be OK for State prison food service contracts or asphalt contractor decisions, it gets people sick, homeless, or dead in a disaster. The second half, if their guys were involved in creating the disaster, will stall help, in order to avoid being caught “with their pants down” being associated with malfeasance that may have caused the Disaster. These kinds of malfeasance/corruption discoveries eventually lead to citizen class-action lawsuits in the billions of dollars.

What is needed is an outside HOT SHOT SWAT Team of non bureaucratic experts to come in and just get it done. These outsiders show up 48 hours after the disaster, take over an abandoned aircraft hanger, or warehouse. Build a “War Room”, overnight and get to work. For tens of millions of dollars, a Hot Shot team can save the State hundreds of billions of dollars in lawsuits and losses.

Hot Shot teams of scientists have now proposed that the State Of California let them solve the problem by turning the Methane into clean energy fuel.

Energy production from fossil fuels without emissions of climate-affecting carbon dioxide -- this vision might come true through the research program "Combustion of Methane without CO₂ Emissions." Since late 2012, KIT has been partner in the program that is part of the Earth, Energy, and Environment (E3) Cluster of the Institute for Advanced Sustainability Studies (IASS), Potsdam. "This is the truly pioneering experiment with the ambition of using fossils without CO₂ emissions," said the scientific director of IASS and physics Nobel Prize laureate Professor Carlo Rubbia when visiting KIT today.

Hydrogen represents a promising medium for the storage and transport of energy in the future. However, it is bound in water (H₂O) or hydrocarbons, such as petroleum, natural gas or coal. Consequently, the hydrogen has to be separated first. In the course of conventional separation processes, the climate-affecting greenhouse gas carbon dioxide is formed. Today's worldwide hydrogen production causes about 5% of the global CO₂ emissions.

CO₂-free hydrogen production at KIT will be achieved by thermal decomposition of methane in a high-temperature bubble column reactor. KIT researchers enter entirely new ground. "With this project, we have the opportunity to participate in the development of fundamentals for a completely new energy technology," explains the head of KALLA, Professor Thomas Wetzel. "If feasibility can be confirmed, sustainable production and use of hydrogen from fossil sources that would have affected the climate if they were used conventionally will be possible."

The liquid-metal bubble column reactor to be built up at KALLA in the next months is a vertical column of about half a meter in height and a few centimeters in diameter. The column is filled with liquid metal that is heated up to 1000°C. Fine methane bubbles enter the column through a porous filling at the bottom. These bubbles rise up to the surface. "At such high temperatures, the ascending methane bubbles are increasingly decomposed into hydrogen and carbon," explains Professor Thomas Wetzel. "We will study how much hydrogen can be produced by a smart process conduct."

The KIT liquid-metal bubble column reactor is based on previous work of Professor Carlo Rubbia and Professor Alberto Abánades from IASS. They studied thermal decomposition of methane in a gas-phase reactor. During this gas-phase reaction, however, the carbon formed deposited on the reactor walls. As a result, gas channels were plugged after a short time and no continuous process was possible. "In the reactor planned to be built in cooperation with the IASS colleagues, the shell of the bubbles assumes the role of the wall," explains Thomas Wetzel. "Only when the bubbles burst at the surface of the liquid metal, is carbon released. The reactor wall is constantly renewed." A similar approach was described by researchers in the team of Manuela Serban from the Argonne National Lab, USA, about ten years ago. Since then, however, this process has not been developed any further.

Following the setup of the test reactor, KIT scientists will study various parameters influencing process conduct and potential hydrogen yield this year. Work at KIT will also focus on fundamental scientific aspects, for example, on the identification of reaction paths influencing the composition of the product gas flow and on possibilities of removing carbon from the reactor. In parallel, the scientists will select materials for potential future industrial reactors, study filter technology, and develop probes for a later continuous process conduct.

Karlsruhe Institute of Technology (KIT) is one of Europe's leading energy research establishments. Research, education, and innovation at KIT foster the energy turnaround and reorganization of the energy system in Germany. KIT links excellent competences in engineering and science with know-how in economics, the humanities, and social science as well as law. The activities of the KIT Energy Center are organized in seven topics: Energy conversion, renewable energies, energy storage and distribution, efficient energy use, fusion technology, nuclear power and safety, and energy systems analysis. Clear priorities lie in the areas of energy efficiency and renewable energies, energy storage technologies and grids, electromobility, and enhanced international cooperation in research.

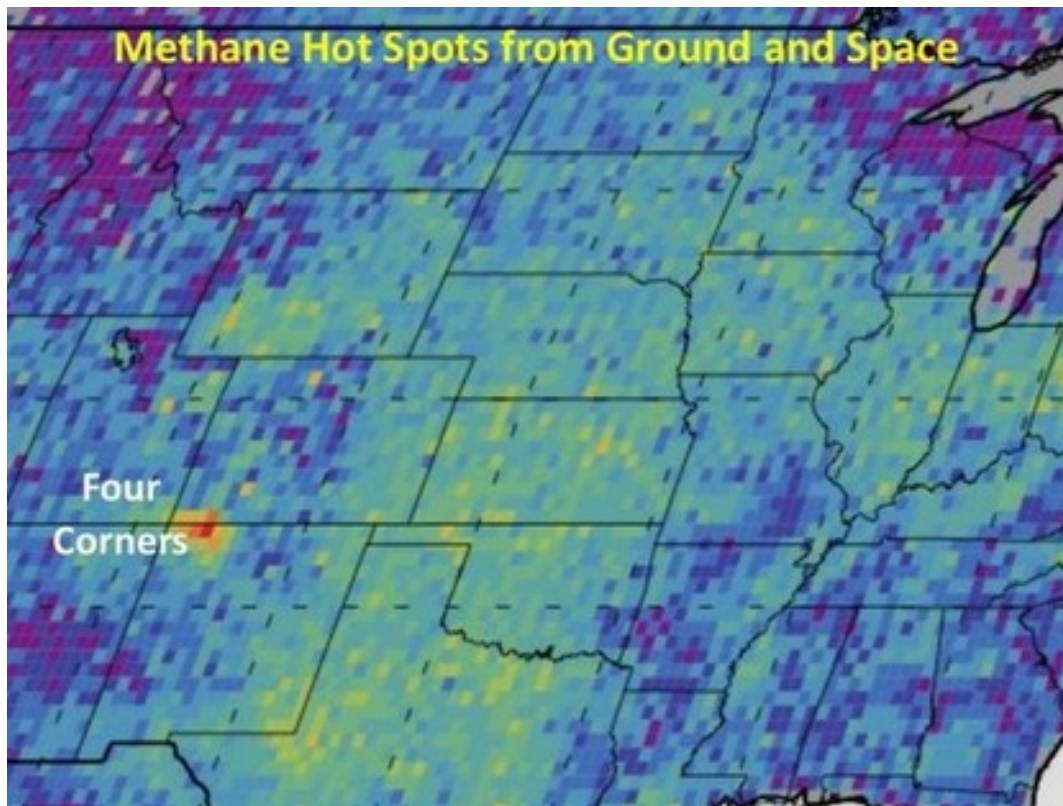
Karlsruhe Institute of Technology (KIT) is a public corporation according to the legislation of the state of Baden-Württemberg. It fulfills the mission of a university and the mission of a national research center of the Helmholtz Association. KIT focuses on a knowledge triangle that links the tasks of research, teaching, and innovation.

A California company: THE POWER, (<https://fcpower.biz>) wants to convert the methane to Hydrogen for Toyota's, Kia's and Hyundai's fuel cell vehicles using tubular plasma converters or steam reforming and has asked the State of California for funding to help deploy it's patented, government sponsored technology. So far, KIT, THE POWER, U.C. Berkeley Grad students, Erin Brokovitch and others, have not had much luck winding their way through California's administrative log-jams

How Satellites Helped Bust the Methane Leakers and Covert Blow-off sites

Scientists study methane 'hot spot' sources

James Fenton, jfenton@daily-times.com



(Photo: Image courtesy of Manvendra Dubey)

LYBROOK — As scientists continue their work tracking sources of atmospheric methane in the Four Corners region, the federal government continues to formulate new rules intended to reduce oil and gas industry emissions.

The U.S. Environmental Protection Agency — which is proposing [new rules](#) to better regulate methane

emissions — projects emissions from the oil and gas industry will increase as technology that includes horizontal drilling and multi-stage hydraulic fracturing makes marginal operations like some of those in the San Juan Basin's Mancos shale play economically feasible. The Bureau of Land Management is also working on a methane waste rule.

In an effort to address the problem of climate change, the Obama administration proposed cutting methane emissions from all U.S. oil and gas production by nearly half over the next decade. The federal effort seeks to reduce methane emissions from oil and gas operations by 40 to 45 percent by 2025, compared to 2012 levels. Natural gas is 90 percent methane, a climate-warming pollutant 80 times more potent than carbon dioxide over a 20-year time period.

After a 2014 report by NASA and the University of Michigan using European satellite imagery captured between 2003 and 2009 showing a large "hot spot" of atmospheric methane over the Four Corners, scientists started a project to better define the cloud's sources. The San Juan Basin has for many years been the largest producer of natural gas in New Mexico, which is the second leading producer of natural gas in the U.S.

Scientists from the University of Colorado, the University of Michigan, the National Oceanic and Atmospheric Administration and NASA conducted research in April using aircraft and two vans outfitted with monitors and other technical equipment to record methane levels in the region with the goal of getting more detailed data.



Jason Libersky Quantigy's Chief executive officer talks pm Dec. 14 at an oil and gas site near Lynbrook about technology that can capture methane emissions. (Photo: Jon Austria/The Daily Times)

Colm Sweeney, lead scientist for the NOAA Earth System Research Lab Aircraft Program, led the air campaign that involved sending five planes over the Four Corners region to conduct atmospheric measurements to track methane and other greenhouse gases.

Sweeney said the study's focus has been to pinpoint sources of atmospheric methane, but that data will not be released until next year.

Sweeney attended the fall meeting of the [American Geophysical Union](#) in San Francisco and said there were "a few talks that showed some of the results of the work that we did." He said the point of the meeting was to generate feedback from scientific peers, "not to broadcast the papers to the wider public."

"We have not been surprised by anything we have found," Sweeney said in an email responding to questions on the new study. "The multi-scale approach that we have taken will not only allow us to quantify methane on regional scales but hopefully point to specific processes responsible for the emissions. We hope to have more results to share by May."

Katy Human — spokeswoman for the Cooperative Institute for Research in Environmental Sciences, or CIRES, at the University of Colorado at Boulder — said the air and ground study begun in April will produce a final study on atmospheric methane sources in the Four Corners region early next year. The report will be announced at an event yet to be scheduled in Durango, Colo., Human said.

Meanwhile, oil and gas operators in the San Juan Basin are pushing back against the proposed federal rules along with the implication that the industry is largely to blame for the high levels of atmospheric methane over the Four Corners region due to venting, flaring, leaks and other emissions sources.

Wally Drangmeister of the New Mexico Oil and Gas Association said that the methane sources in the area are too numerous to lay blame squarely on oil and natural gas production.

Drangmeister listed area coal mines, gas refineries, landfills, naturally occurring coal bearing outcroppings, and agricultural operations like feedlots as a sampling of some of the many contributing sources to atmospheric methane.

"There are natural sources, certain natural coal bed outcroppings on the edges of the basin, that certainly will play a role," Drangmeister said. "A great deal of agriculture, coal mining and oil and gas production do play a part. It's a very dynamic issue."

Drangmeister said the industry is working to remedy any loss of methane into the air with technology such as green completion retrofits that include low- or no-bleed pneumatic devices.

"We've been reporting methane emissions to the EPA on a regular basis," he said. "When you look at the actual releases the industry has done a really good job. The amount is not as high as what they are saying. The industry is actually trending down with the amount of methane that is being vented or flared even as natural gas and oil production is going up. We're in the business of capturing methane. If there are issues, we want to know about it."

One technological advance that may help operators better capture methane from leaky storage tanks at

well facilities is being produced by an Albuquerque-based company called Quantigy Engineering.

Jason Libersky, Quantigy's CEO and co-founder, put his data analysis and computational physics skills together and designed a vapor recovery unit, manufactured by Twin Stars Ltd. in Bloomfield. Libersky also created cloud-based software that oil and gas companies can use to monitor and analyze the amount of gas leaking or venting from the oil and gas equipment. Libersky said that while the basin's more than 25,000 wells are "leaking just a little bit," his product can significantly reduce methane releases and help operators make more money at the same time.



Jason Libersky, left, whose company is producing equipment to capture fugitive methane, and Cody Boyd, a field technician for WPX Energy, talk on Dec. 14 near an oil and gas site in Lynbrook. (Photo: Jon Austria/The Daily Times)

"With the regulatory component around (the issue), you're killing two birds with one stone," Libersky said as he showed a nearly completed WPX Energy oil well pad near Lybrook that had installed two twin VRU systems. "A lot of the wells in the San Juan (Basin) have been operating for 20, 30 or 50 years. Each well could have leaked millions of dollars over its lifetime."

Libersky is currently testing a VRU for a single well pad. He said there are about 400 of his large VRU systems in operation in the Permian Basin and 40 to 50 in the San Juan Basin.

WPX, a Tulsa-based oil and gas company that has increased its presence in the San Juan Basin in recent years, has sought to reduce venting and flaring times with new technologies designed to capture fugitive releases of methane.

Nica Hoshijo, a WPX senior environmental specialist, said that the the VRU systems the company uses achieve capture rates of 95 percent on average. That rate spells profits the company would otherwise allow to escape into the open air.

Hoshijo said that the company employs a full-time staff person to monitor leaks at well sites. Armed with a \$100,000 FLIR, or forward looking infrared, camera, the employee visits well pads and uses the camera imaging to detect leaks from thief hatches, loose valves or other sources to signal repair work when needed.

Based in Durango, Colo., Pete Dronkers of Earthworks said he has spent the majority of the year shooting video with his organization's FLIR Camera to document the amount of methane released into the air from oil and gas operations in the San Juan Basin.



Eric Kort, speaks to attendees at a Four Corners Public Science Forum on Methane at San Juan College on April 17. (Photo: Daily Times file photo)

Capturing what is otherwise invisible to the naked eye and carries no odor when emitted, Dronkers admits an exact scientific breakdown of the sources of atmospheric methane in the region is "still up in the air." But he said recent events like the largest gas leak in U.S. history that erupted from Southern California Gas' Aliso Canyon natural gas storage facility in October make the documentation of the issue with new technology essential to help raise awareness.

"It's hard for us to say just who the culprit is," Dronkers said. "Oil and gas processing facilities, leaks in the gathering systems, the (hydraulic fracturing) drilling process. It's definitely related in some way to oil and gas development."

With new BLM and the EPA regulations imminent, operators like Dugan Production Corp. stand to lose money and will be forced to plug low-producing, older wells, according to John Alexander, the company's vice president.

Alexander said he awaits the results of the air and ground study, but is frustrated with what he terms an overzealous regulatory environment created by the federal government that makes the struggle Dugan Production and other industry operators face even harder.

"We're all in this together and that's the way we're going to look at it," Alexander said. "We're not going to get sympathy ... so we're not going to look for it. I've worked in this basin for 43 years. I have raised a family here. We live here and not one time have I got up and said I'm going to do something stupid and hurt the environment. That's morally bankrupt."

Alexander said that the looming regulations double the pain the industry was already experiencing when oil prices tumbled last fall and natural gas prices dropped to a 13-year low.

"This is an energy intensive country. God gave us the directive to use the resources we have here on Earth and take care of them. But many times it appears people want to give up our standard of living," he said. "When you drive your gasoline-powered automobile and you leave from your natural gas-heated home on an asphalt-coated highway to go to your office, heated by natural gas, and you turn on your light switch and have your room flooded by electricity and you're nice and warm in your clothing made from hydrocarbon products and drinking out of a bottle made from ethane, and you're really mad at oil and gas companies and upset about whatever the industry has done and you use the products and you carry your (protest) sign, I have only one thing to say to you — you're welcome."

James Fenton is the business editor of The Daily Times. He can be reached at 505-564-4621.

California Methane Leak Disaster Is Costing American Taxpayers A “MILLION DOLLARS PER MINUTE” for every minute it leaks into atmosphere!

Invisible disaster drives people from upscale LA community

By BRIAN MELLEY

Associated Press

LOS ANGELES (AP) -- Laura Gideon and her family endured the sickening stench from an out-of-control natural gas leak for about a month before they could no longer tolerate the nausea, headaches and nosebleeds.

After she went to the emergency room in November vomiting and with a severe migraine, Gideon, her husband and their two children abandoned the only home they'd ever known together in the upscale

Los Angeles suburb of Porter Ranch.

They moved in with her parents about 10 miles away to await a fix that could still be months away.

"We're in mourning now," she said. "We didn't ever want to leave. We were in a nice gated community. We were safe, you know, supposedly good schools. This wasn't our plan."

Thousands of her neighbors have voluntarily followed suit in an exodus from an invisible threat that wafts occasionally and doesn't sicken everyone in its path, though it continues to spew enormous amounts of climate-changing methane.

The leak has cost the utility \$50 million so far and is expected to balloon as the company tries a tricky fix to plug a well deep underground, while also shelling out compensation for exasperated residents and fighting dozens of lawsuits.

Gov. Jerry Brown declared an emergency last week for the prolonged blowout that requires the utility to cover the costs and instructs state regulators to protect ratepayers.

The well is one of 115 in the Santa Susana Mountains where Southern California Gas Co., a division of San Diego-based Sempra Energy, stores natural gas in a vacant oil field about a mile and a half underground. It is the largest natural gas storage facility west of the Mississippi River and can provide energy to all of Southern California for a month.

It has been gushing the equivalent of about a quarter of the state's daily output of methane, along with other gases, since it was reported Oct. 23. It is also blamed for depositing tiny oil droplets on cars and houses that are about a mile away.

The hillside Porter Ranch community of about 30,000 people in mostly single-family homes has grown considerably in the three decades since scenes in the movie "E.T. The Extraterrestrial" were filmed here.

Public health officials said most of the gas is dissipating and not causing long-term problems, but foul-smelling additives that make highly flammable gas detectable has been blamed for maladies including irritated throats, coughs and respiratory problems.

"It's like being in a disaster area, but it's not a disaster you can see," said Sue Hammarlund, who has seen her share of national disasters as a Red Cross volunteer and has suffered from headaches and nosebleeds recently. "I think this is more debilitating mentally."

Two local schools closed before the end of the year and nearly 1,900 students will start the year at different schools Monday.

While more than 4,500 families have either left or are on the move, many have stayed behind - either because they're not bothered by the smell, aren't worried or don't want to hassle with moving.

Bob Casselman has lived near the entrance to the gas facility 43 years. His wife, Pat, has only noticed the smell a few times and had very few symptoms. The retirees are concerned about the impact on property values, but they're not moving.

"I can't understand all these people," Bob Casselman said. "Everybody wants a freebie ... Unless something's really bad, we don't complain."

The company has apologized for failing to disclose the leak after residents began complaining about the smell and for reacting slowly to their concerns.

The incident is unprecedented for a utility and it is "forging new ground," said Gillian Wright, a SoCalGas vice president.

Under orders from the county health department to relocate people who want to leave, SoCalGas has offered to pay up to \$250 a night for hotels, plus \$45 per person per day for food, or up to up to \$7,500 a month for rental homes. The leak is expected to be stopped in March, but the company has agreed to house people through April.

Some residents have complained about not getting help calls returned and not finding relocation services helpful.

Cheri Derohanian said representatives she spoke with in Chicago and Colorado were useless because they didn't know the lay of the land. One found her a downtown Los Angeles condo that was 30 miles away and better suited for urban hipsters than her family of four.

"We're not a bunch of hicks. We're like Porter Ranch, it's like, you know, the Beverly Hills of the valley," Derohanian said. "We're like BMW people and you're giving us Pinto service."

Many have set out on their own only to lose bidding wars to neighbors or encounter sky-high rents when landlords realize they're gas leak refugees.

Megan Zahedi said she hasn't been helped by the gas company and when she sought housing she found rents doubled to \$9,000 a month and houses were snapped up immediately.

"We're not looking for a vacation provided by the gas company," said the single mother, who fears paying a mortgage and additional rent. She feels like a bad parent as her two children suffer from rashes, nausea and headaches, and have been abandoned by their friends.

Down the street in the 1,100-home Porter Ranch Estates, Gideon entered a dark and cold home to pick up a few things Wednesday. She moved here with her college sweetheart 17 years ago. It's where her children took their first steps. The heights of the two are penciled on a wall in the garage.

Everything in the two-story stucco-and-brick house was as they left it seven weeks ago. Portraits and family vacation photos lined walls and shelves. Her husband's UCLA football jersey was framed on the family room wall. Toys and dolls were scattered on her daughter's bedroom floor.

A neighbor who is among those who fear a crime spike in vacant houses called to make sure it was Gideon in the house.

The stench was gone that day. Her 11-year-old daughter, Faith, didn't get a headache and said it felt good to be home - even briefly. Gideon isn't sure what the future holds, but she doesn't plan to return

permanently.

"The American dream turned into a bit of disaster for us," she said. "We're not coming back. In my opinion, it would be negligent."

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California's Methane "Blow Off Crisis" nightmare will affect most of USA. Enviro-Crisis bigger than BP Gulf Spill

- Utility companies in California have "blown off" hundreds of pipeline and drilling bubbles of Methane and released historical metric tons of methane to the public
- "COVER-UP!" Charged!!!
- Alviso Canyon not the only leaker! There are many more, leaking extensively
- Bakersfield, California "blow-offs" use revving bull dozer engines to hide the sound of escaping methane gas from other large gas conduit projects
- Methane, being "blown off" could be used to power millions of fuel cell cars for hundreds of years but California gives utility companies no incentive to harvest the methane. "Green California" does not make utilities process the methane into hydrogen for fuel cell electric cars. ***"It is cheaper and easier to just do the blow off"***, says PG&E utility supervisor.
- The largest natural gas pipelines in California, covertly pump methane into the air at night under the cover of heavy equipment sounds, stinking up California central valley regions for miles and miles. When PG&E closes off all old California large diameter gas lines, they secretly blow-off hundreds of metric tons of methane into atmosphere
- People already being sent to hospitals in Blow Off Zones
- Satellites, and PC computer-based mobile sensors, now able to see the hidden leaks
- Epic weather shifts could be caused by massive methane clouds stuck in atmosphere
- PG&E whistle-blowers threatened. Utility monitoring insiders reported the leaks to California representative Jackie Spear's office over 8 years ago, but nothing happened
- PG&E already caught bribing officials and running email rigging in Brisbane investigation
- Regulatory, and elected officials, own PG&E stock, get jobs and campaign funds from PG&E

It was dark, foggy, and way after-hours in the dimly lit field 5 miles south of Bakersfield, a flat, low-key, sub-blue-collar farming town in Central California. The field supervisor was excited to be collecting the over-time. He had sent most of the regular crew home at five pm, but he, and his five man line operator crew had stayed on for a special job.

The job was called "a bitch job", because the process they were going to use was, informally, and very unofficially, called "cracking the bitch".

All of the metal parts on the site gleamed, with a dull wet shine, the foggy evening moisture condensed onto everything in this Tule Fog blanket that covered the area. Central Valley fog was thick as soup, but the bitch job crew liked it that way. It covered dark deeds, quite effectively.

The Supe yelled: "Clear" and the torque-man began to reduce the tension on the last bolts that held the steel capping system on the manifold. At the same time, the man on the biggest bulldozer put the big

yellow dozer in “neutral” and idly let his foot drop to the accelerator to the flow, the monstrous rumble of the big yellow beast became deafening as the men checked the seals of their ear protection cups over their ears. Even though some of the bitch crew were only yards from the bull dozer, they could plainly hear another sound rising above the bull dozer roar.

It was the mad rush of a thousand screaming devils, bursting out of the gates of hell. It was the blast of methane, escaping into the night sky across all of California.

This was not a unique event. This was not “an accident”. This was done as a convenience because there is no profit, for PG&E, in doing the right thing.

Methane can power everything, in California, that solar cannot. In the last 15 years, California utility companies have “blown off” so much of it, though, that it has un-done all most all of the offsets from Governor Jerry Brown's entire “cleantech” green initiatives program. Brown probably now wishes he had not received so much campaign funding from PG&E.

Let us dive deeper into the biggest environmental crisis in California's history; one of it's own making:

Unprecedented' gas leak in California is the climate disaster version of BP's oil spill



[By Andrew Freedman](#)

A massive natural gas leak in Aliso Canyon, California, about 25 miles north of Los Angeles, has been spewing about 62 million standard cubic feet of methane per day into the air since a well casing mysteriously suffered damage on Oct. 23 of this year.

The leak is unlikely to be squelched for another three to four months, according to SoCalGas, as crews have to drill about 8,500 underground to intersect with the base of the leaking pipe.

Already, more than 1,000 people in Porter Ranch and Northridge, California have temporarily relocated due to health complaints related to the fumes from the leak. In addition, the Los Angeles Unified School District's Board of Education decided on Dec. 17 to temporarily relocate two schools for the rest of the 2015-16 school year.

See also: [Historic climate agreement adopted in Paris](#)

The Aliso Canyon leak demonstrates a potential blind spot in the nascent regulatory system for

overseeing the country's growing natural gas infrastructure. Companies are being pushed to contain leaks in their natural gas pipelines and at facilities that burn natural gas, but underground storage areas, of which there are more than 300 nationwide, aren't subjected to specific standards that might have prevented this leak.



Visible image and infrared image revealing the natural gas leak from Aliso Canyon, California.

Image: EDF

California has been monitoring the air quality in the Porter Ranch community, which is closest to the leak and where many people have complained about health issues. They have found that, so far, the level of pollutants in the air, including benzene, which can be extremely hazardous when present in particularly high levels, has remained below the threshold where they would be considered dangerous.

However, natural gas odorants can cause adverse physical symptoms, including nausea and headaches, despite the lack of long-term health risk. A spokesman for SoCalGas told *Mashable* that the company "recognizes the impact this incident is having on the environment," but said it's unsure exactly how much gas has escaped so far.

According to the state,

the source of the leak appears to be a damaged well casing about 500 feet underground.

the source of the leak appears to be a damaged well casing about 500 feet underground. It's unclear what caused the damage, according to the California Division of Oil, Gas, and Geothermal Resources. The well passed an annual mechanical integrity test last year.

However, seven routine attempts to kill the well (that is, stop the flow of gas through that well casing) failed, so workers are now drilling a so-called "relief" well to intersect the leaking well at a depth of 8,500 feet below the source of the leak. This is because heavy mud and brine has to be delivered near the origin of the gas in order to cut off the flow of gas toward the surface.

According to the Division of Oil, Gas and Geothermal Resources, the drilling has to be done from at least 1,000 feet away from the well, due to the risk of igniting the escaping gas. The relief well drilling began on Dec. 4 and is now at 3,800 feet of the 8,500 feet they are drilling down to, per an email from

SoCalGas.

"So the contractor must complete several thousands of feet of drilling — both from a distance at the surface and underground — and hit the casing of another well, a relatively small target," the division said in a list of bullet points sent to *Mashable* via email.

Equivalent to "8 or 9 coal plants"

The climate implications of this particular leak are significant, especially since the leak is in California, which has some of the most stringent greenhouse gas emissions reduction plans in the world.

The main component of natural gas is methane, which can have up to 80 times the warming power of carbon dioxide for the first 20 years after it is released, before it begins to be removed from the atmosphere through natural processes.



Screenshot from aerial footage of the Aliso Canyon natural gas leak.

Video: YouTube, [Screenshot; YouTube, Environmental Defense Fund](#)

According to Dave Clegern, the spokesman for California's Air Resources Board, which regulates the state's greenhouse gas emissions sources, it's unclear exactly how much methane has escaped into the atmosphere so far, but it appears that the leak rate is slowing down.

"This is a major leak, but beyond that we really won't be able to reach any conclusions until after the leak is sealed,"

"This is a major leak, but beyond that we really won't be able to reach any conclusions until after the leak is sealed," he told *Mashable*.

The leak has increased the state's greenhouse gas emissions from methane by 25%, but methane only constitutes about 9% of total greenhouse gas emissions in California. Other greenhouse gases emitted in California include carbon dioxide and nitrogen oxide, for example.

The environmental group Environmental Defense Fund, which emphasizes the need to eliminate methane leaks in order to reduce the climate impact of natural gas, says that the Aliso Canyon leak has amounted to about 62 million standard cubic feet of methane per day.

"That's the same short-term greenhouse gas impact as the emissions from 7 million cars," the group [says on its website](#).

Timothy O'Connor, who directs EDF's oil and gas program in California, said the Aliso Canyon leak is of a size and scope that is "unprecedented for California."

It's about equal to the emissions from eight or nine coal-fired power plants

It's about equal to the emissions from eight or nine coal-fired power plants, he said in an interview.

As utilities have increasingly turned to natural gas as the country's main source of fuel for generating electricity, displacing coal, they often tout its climate benefits as a cleaner burning fuel. However, research shows that if leaks of methane, which is a more potent but shorter-acting climate pollutant compared to carbon dioxide, are not curtailed, the climate benefits of natural gas can be dramatically lessened or negated entirely.

O'Connor, from EDF, said this single leak is "undermining years of progress" in containing methane leaks throughout California oil and gas facilities. The amount of emissions from this one leak, for example, are now bigger than the combined annual emissions from California's oil and gas infrastructure, including oil refineries.

O'Connor said the state has brought in an array of experts to try to help put a stop to the leak, including people from national energy laboratories and those with experience fighting the BP Deepwater Horizon disaster in the Gulf of Mexico in 2010.

The leak should spur national action to ensure that safety measures are in place at all natural gas storage facilities in order to prevent another similar event, O'Connor added.

"This story... about Aliso Canyon is one that is specific to California, but
this canyon represents a bigger problem.

this canyon represents a bigger problem. This event is the sort of embodiment of... why we need comprehensive methane regulations from oil and gas infrastructure," he said.

"You can prevent these kinds of things from happening."

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