



California Water and Infrastructure Report

For March 5, 2020

by Patrick Ruckert

Published weekly since July, 2014

An archive of all these weekly reports can be found at both links below:

<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>

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“At best, one can say that the Corona Virus epidemic is the trigger for the collapse of the biggest financial speculative bubble in human history. The stock market is just one element of this “everything bubble.” Corporate debt, now over \$14 trillion, including a large portion of that being classified as junk bonds for what are referred to as “zombie companies,” companies that do not earn enough to even pay the interest on their debt. Add to that the more than \$1 trillion of student loan debt, and about the same for auto loans.”

A Note To Readers

Following my monologue, below, you will find coverage of:

The developing drought in California (**pages 3-5**)

What has happened on the state's water policy since the visit of President Trump two weeks ago (**pages 5-8**)

Then, wildfires are already begun and the dryness will mean a dangerous fire season (**pages 8-9**)

That leads to a lot of new developments with PG&E (**pages 9-11**)

The **Feature** this week highlights the role of the Army Corp of Engineers and the Bureau of Reclamation role in building and maintaining water infrastructure (**pages 11-16**)

Now for an introduction:

There is no question that the Corona Virus epidemic, and soon to be declared a global pandemic, will have a significant disruptive impact on the supply chain of the real economy of production, the distribution of goods, transportation and travel, and much more.

Will the financial system collapse, even worse than in 2008? Probably, but it will not be due to the Corona Virus. For months now the Federal Reserve has been pumping money into the major banks and hedge funds in the so-called repo market operations. How much? Well on March 2 it was \$120 billion, and since last September it now totals more than \$6 trillion. Banks won't loan to each other over night, so the Fed stepped in, repeating what was done in the crash of the system in 2008.

At best, one can say that the Corona Virus epidemic is the trigger for the collapse of the biggest financial speculative bubble in human history. The stock market is just one element of this "everything bubble." Corporate debt, now over \$14 trillion, including a large portion of that being classified as junk bonds for what are referred to as "zombie companies," companies that do not earn enough to even pay the interest on their debt. Add to that the more than \$1 trillion of student loan debt, and about the same for auto loans.

For a more extended discussion of this: https://larouchepub.com/other/2020/4710-facing_the_economic_blowout.html?fbclid=IwAR1ZbAU6kjWL_xNMA3gkWJeyYtqrF37a_zo4uutwTCXz273085ilh1gPis

Solving the crisis

But, what we are concerned with is not the speculators of Wall Street and London, but solutions. For as the bubble of speculation has stolen credit for real investment in the physical economy, accompanied by austerity for decades now under the policy of neo-liberalism and "share-holder value," the resilience of even our public health system has been hollowed out. More than 20% of rural hospitals have been shut down over the past decade. Thousands of hospital beds have been eliminated. And with outsourcing, more than 90% of our pharmaceuticals are produced in India and China. There is more, but I think that gets the point across.

The solution is not so much "objective" but "subjective." We require new thinking about solving problems, which throws in the garbage ideas like "the private sector will solve it," and the bureaucratic inertia that says "it can't be done."

We must think like we are in a war, because we are-- a war for the future-- if you wish to have one.

Let us begin with the announcement by Health and Human Services Secretary Alex Azar on March 1 that the Trump administration had activated powers under the Defense Production Act to restore power grids and supply food and water in states and territories hard hit by the 2017 hurricane season. Azar said that that act is now being activated to deal with Corona Virus epidemic, to produce and distribute personal protective equipment, masks, gowns, gloves, etc. He said that 300 million N95 respirator masks are needed for the emergency stockpile for health workers. These are necessary, along with production of testing and diagnostic kits on a large scale.

The Defense Production Act

The Defense Production Act is a federal law enacted on September 8, 1950, in response to the start of the Korean War. Since 1950, the Act has been reauthorized over 50 times, and has been periodically amended and remains in force.

The Act contains three major sections. The first authorizes the President to require businesses to sign contracts or fulfill orders deemed necessary for national defense. The second authorizes the President to establish mechanisms (such as regulations, orders or agencies) to allocate materials, services and facilities to promote national defense. The third section authorizes the President to control the civilian

economy so that scarce and/or critical materials necessary to the national defense effort are available for defense needs. The Act also authorizes the President to requisition property, force industry to expand production and the supply of basic resources, impose wage and price controls, settle labor disputes, control consumer and real estate credit, establish contractual priorities, and allocate raw materials towards national defense.

Obviously, the act gives the President the power to not only wage a war, but to be able to respond to a national emergency.

Using the act in a health emergency was debated at hearings in 1953 before the Banking and Currency Committee of the U.S. Senate. Albert Whitehall of the American Hospital Association argued that because of the importance of hospitals, their construction be given the required certificates of necessity so that they could be constructed under the act. One could also, just as appropriately, build new hospitals, and other critical medical structures, under the provisions of the 1946 Hill-Burton Act.

But more is needed. As Zepp-LaRouche emphasized yesterday, we need to implement “the full package” of Lyndon LaRouche’s ideas, with a return to sovereignty by all nations as the touchstone. His Four Laws will end the casino economy. Every country must establish their own nation-serving banking institution. They then can make treaties for mutual investment in long-term infrastructure and other projects, and collaborate on urgent measures such as disease outbreaks.

President Trump could use this power to restore the Glass-Steagall banking law by fiat, by-passing the congress, which will not do it. A good first step.

Handling the Corona Virus epidemic:

As for handling the Corona Virus epidemic, here is an excerpt from a report on the recent World Health Organization mission to China by 25 international experts:

The WHO sent 25 international experts to China and here are their main findings after 9 days

https://www.reddit.com/r/China_Flu/comments/fbt49e/the_who_sent_25_international_experts_to_china/

The World Health Organization sent a team of international experts to China to investigate the situation, including Clifford Lane, Clinical Director at the US National Institutes of Health.

"China's bold approach to contain the rapid spread of this new respiratory pathogen has changed the course of a rapidly escalating and deadly epidemic. In the face of a previously unknown virus, China has rolled out perhaps the most ambitious, agile and aggressive disease containment effort in history. China's uncompromising and rigorous use of non-pharmaceutical measures to contain transmission of the COVID-19 virus in multiple settings provides vital lessons for the global response. This rather unique and unprecedented public health response in China reversed the escalating cases in both Hubei, where there has been widespread community transmission, and in the importation provinces, where family clusters appear to have driven the outbreak."

"Much of the global community is not yet ready, in mindset and materially, to implement the measures that have been employed to contain COVID-19 in China. These are the only measures that are currently proven to interrupt or minimize transmission chains in humans. Fundamental to these measures is extremely proactive surveillance to immediately detect cases, very rapid diagnosis and immediate case isolation, rigorous tracking and quarantine of close contacts, and an exceptionally high degree of population understanding and acceptance of these measures."

The Global Supply Chain

Here is a link to an article that addresses that, noting that by mid-March, due to especially disrupted manufacturing in China, major industry shutdowns will begin in the U.S. and Europe:

How Coronavirus Could Impact the Global Supply Chain by Mid-March

by [Pierre Haren](#) and [David Simchi-Levi](#)

February 28, 2020

<https://hbr.org/2020/02/how-coronavirus-could-impact-the-global-supply-chain-by-mid-march?ab=hero-subleft-1>

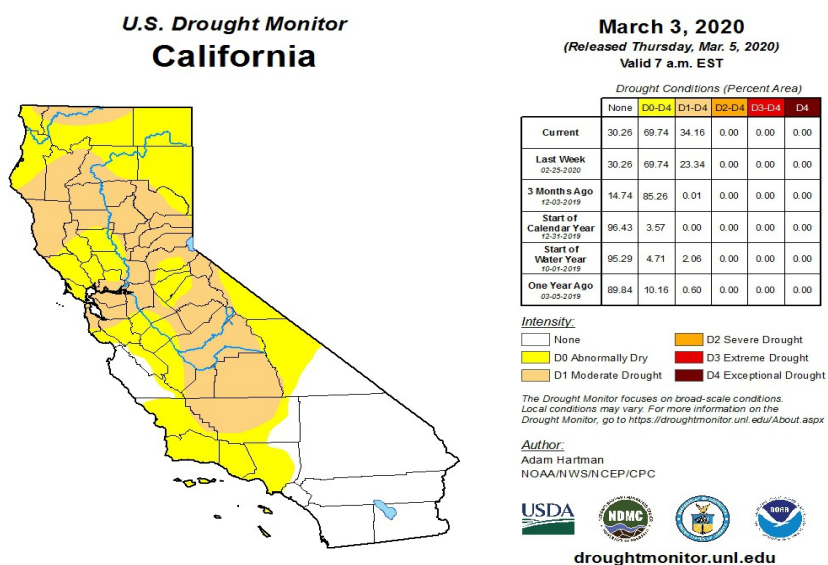
Join in, to be part of the solution: Urgent Appeal to President Trump, President XI, President Putin, Prime Minister Modi and Leaders of Other Countries for the Emergency Implementation of the Four Laws of Lyndon LaRouche

https://action.larouchepac.com/four_laws_global?recruiter_id=139893

Its Back. The Drought That Is

U.S. Drought Monitor

As the *U.S. Drought Monitor* shows this week, the drought intensity continues to increase week by week. While no area of the state has reached the “Severe,” “Extreme,” or “Exceptional Drought” level as of yet, the portion of the state in the “Moderate Drought” category expanded this past week from 23% to 34%.



February ranked among the driest on record across California. Forecasters hopeful for a ‘miracle March’

By [Hannah Fry](#) Staff Writer

March 2, 2020

<https://www.latimes.com/california/story/2020-03-02/february-ranked-among-the-driest-on-record-across-california-forecasters-hopeful-for-a-miracle-march>

After one of the driest Februaries on record across much of California, the first day of March brought

a dash of rain and a dusting of fresh powder to the parched landscape.

The storm, which rolled into Los Angeles County on Sunday afternoon, dropped less than one-tenth of an inch of rain on the coast, while higher elevations saw between one-quarter and an inch of precipitation.

Sunday's rain was the most precipitation some areas have seen in at least a month. A high-pressure ridge that's lingered over the eastern Pacific Ocean for much of January and February has rerouted winter storms that typically soak California to the Pacific Northwest.

After a parched January across southwestern California, February did not bring the reprieve forecasters had wanted. Most places received less than 5% of normal rainfall for the month, according to weather service data.

This lack of precipitation rewrote the record books in some areas in California.

The lack of rain also has taken its toll on the Sierra Nevada snowpack, a key source of the state's water supply. As of Thursday, the statewide snowpack measured 46% of average for the time of year. At roughly the same time last year, the snowpack measured 151% of average.

California may need a 'Miracle March' to prevent an early and dangerous wildfire season

By John Roach, AccuWeather staff writer

March 5, 2020

<https://www.accuweather.com/en/severe-weather/california-may-need-a-miracle-march-to-prevent-an-early-and-dangerous-wildfire-season/696152>

A brush fire that grew to 175 acres in Norco, California, on Tuesday was perhaps a preview of what could be an early and dangerous wildfire season in a state that just had its driest February on record.

It was the eighth fire incident in 2020, according to the California Department of Forestry and Fire Protection (CAL FIRE). That already equals the number of fire incidents before April 1 in the last four years combined.

"The combination of a very dry January and an even drier February made for one of the driest first two months of any calendar year on record across much of southwestern California," a statement from the Weather Service's Los Angeles forecast office read

That means the state needs an abundance of rain in March – a so-called "Miracle March" – to prevent an extended and possibly problematic wildfire season statewide.

A second problem that California is encountering is the higher temperatures throughout the state, which also could contribute to a longer wildfire season. Average daily temperatures in Los Angeles are 3.3 degrees Fahrenheit higher than normal through the end of February, with Sacramento (2.6 F) and San Francisco (2.1 F), among others, having similar experiences. Hotter conditions dry out the soil, making moisture less available to plants and creating ideal wildfire conditions.

The California Water Wars-- Part 85

President Trump's visit to Bakersfield two weeks ago has set off and brought back to the front burner several issues in the never ending battles over water in the state. The article below highlights some of that. It is excerpted heavily, so for more I suggest you go to the link provided.

Then I provide a link to an article on raising Shasta Dam.

Finally, a new study by the University of California on how the state's water policy will result in the fallowing of about one million acres of Central Valley farmland, which, in turn, will mean the loss of as many as 85,000 jobs, both directly and indirectly in the agricultural sector. It is a report that all involved in agriculture (and those who do eat) must read. I include below just the first few paragraphs from the "Introduction and Summary of Results:"

What's happened since Trump visited the Valley? Quite a bit.

[Alex Tavlian](#)

March 1, 2020

<http://sjvsun.com/ag/whats-happened-since-trump-visited-the-valley-quite-a-bit/>

President Donald Trump's quick visit to Bakersfield two weeks ago capped a years-long effort to send more water to the region and into Southern California from the Sacramento-San Joaquin Delta.

As written before, the Bakersfield rally and signing also served as a watershed moment in a decade-long push to restore water flow to the state's breadbasket following legal sparring between environmentalists, major water users, and irrigated agriculture.

And, it's important to note, that Trump's visit itself didn't authorize the new environmental rules governing water exports from the Delta. That was done by high-level executives with the U.S. Bureau of Reclamation one day prior.

Instead, Trump came to sign a new memo to kickoff the next phase of action by the Federal government on California water infrastructure.

So what's happened since Trump made his visit to the Valley? More than you can imagine.

Call the lawyers

Minutes before Trump took the stage, the State of California filed a lawsuit seeking to block implementation of the biological opinions – or environmental guidelines – governing the flow of water from the Delta via the Central Valley Project.

The suit followed months of telegraphing by Gov. Gavin Newsom and his administration. Just one day before the suit was filed, Secretary of the Interior David Bernhardt was issuing prebuttals to a lawsuit from the state.

Giving a dam

On Thursday, the U.S. Bureau of Reclamation delivered its own salvo to the Newsom administration – it was pushing forward pre-construction work on raising Shasta Dam.

The Dam, a large piece of storage infrastructure within the Central Valley Project, has been high on the target list for expansion.

A push to raise the dam was made possible by the same law that delivered new biological opinions – the Water Infrastructure Improvements for the Nation (WIIN) Act, approved in the waning days of the Obama administration.

California Attorney General Xavier Becerra sued Westlands to block their environmental impact study, arguing that a study would violate the state's Wild and Scenic Rivers Act.

The Bureau of Reclamation subtly announced its work to move the dam raise project via a tweet: "President Trump told us to improve [#CAwater](#) reliability. Today we're continuing pre-construction work at Shasta Dam to improve water supplies for farms, families, and fish and wildlife. [#RaiseShasta](#),

@USBR”

Officials with the agency cited their renewed push for Shasta Dam was launched by the memo signed during Trump’s bakersfield visit.

Looking at the cup half full

Tuesday, the Bureau of Reclamation announced that Valley farmers would see greatly reduced allocations of water in 2020.

For westside San Joaquin Valley farmers, they would see merely allocations at 15 percent of their contracted amount.

Despite major changes to the guidelines governing water pumping to the San Joaquin Valley, no policy could serve as an adequate substitute for rainfall. And while 2019 served as a significantly wet year, 2020 has been far less forgiving for farmers and water users.

However, major water users seemed to sing the same tune: despite the lack of rainfall in 2020, wetter years within this new legal environment will translate to far greater access to water.

Water security

Meanwhile, Westlands became the first water district to convert its temporary, short-term contract for water with the U.S. Bureau of Reclamation to a permanent repayment contract. The district signed its agreement with Reclamation on Friday.

U.S. Bureau of Reclamation plans to raise Shasta Dam

The Shasta Dam is a federally owned facility and it is the largest reservoir in California. But soon, the dam could be raised by several feet.

Feb 6, 2020 7:29 PM

By: Ana Marie Torrea

<https://www.actionnewsnow.com/content/news/US-Bureau-of-Reclamation-plans-to-raise-Shasta-Dam-567642761.html>

Blueprint Economic Impact Analysis: Phase One Results

David Sunding and David Roland-Holst UC Berkeley

February 15, 2020

https://waterblueprintca.com/wp-content/uploads/2020/03/Blueprint.EIA_PhaseOne.2.28.pdf

Introduction and Summary of Results

This report describes the results of an economic analysis of water supply restrictions affecting growers in the San Joaquin Valley. The economic analysis considers two types of restrictions: i) limitations on groundwater pumping implemented as part of the Sustainable Groundwater Management Act (SGMA), and ii) future reductions in surface water supplies available to farmers in the San Joaquin Valley resulting from several regulatory processes initiated by the State of California and the federal government.

Based on an analysis of SGMA and other anticipated water supply restrictions, we conclude that up to one million acres may be fallowed in the San Joaquin Valley over a period of 2-3 decades as a result of reduced ground and surface water availability. This amount of fallowing is approximately one-fifth of all acres currently under cultivation in the Valley. The farm revenue loss associated with this fallowing is \$7.2 billion per year.

The changes in water availability considered here will have a dramatic effect on the labor market in the San Joaquin Valley. We calculate that the direct employment losses from SGMA plus anticipated surface water reductions will total 42,000 jobs on average. These employment losses include direct farm employment and agricultural service sector jobs, and are distributed across all employee classes and compensation levels of workers engaged in farming. Direct employee compensation losses (e.g., wages and salaries) total \$1.1 billion annually in the San Joaquin Valley.

Reducing production in San Joaquin Valley agriculture impacts other parts of the California economy in downstream sectors like transportation and food processing (e.g., indirect losses), and more generally as farmers and unemployed workers have less income to spend on household purchases (e.g., induced losses). Counting indirect and induced job losses together with direct losses, the SGMA and future surface water restrictions will result in as many as 85,000 lost jobs and \$2.1 billion in lost employee compensation annually.

The Wildfire Season Has Begun

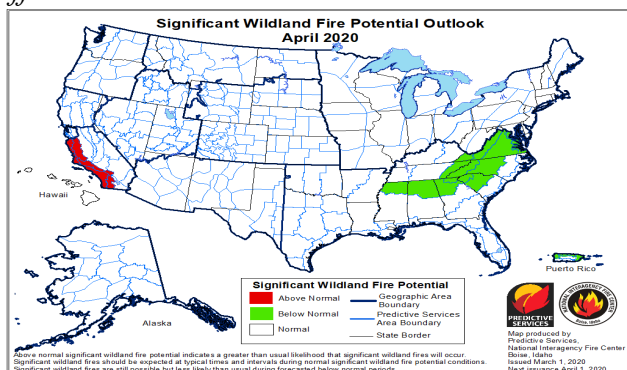
Above average wildfire potential predicted for coastal areas of Central and Southern California

Author [Bill Gabbert](#)

March 2, 2020

<https://wildfiretoday.com/2020/03/02/above-average-wildfire-potential-predicted-for-coastal-areas-of-central-and-southern-california/>

In Southern California] well below average rainfall and above average temperatures are expected to continue through April. Due to the lack of significant rainfall, fine fuels are curing rapidly across the lower elevations and will be completely cured by the middle or end of March. There will be an above average potential for large fires across the lower elevations of the Central Coast and Southern California due to the early curing of fine fuels. A near average amount of offshore wind events will most likely continue to occur through April. These winds will fan any new ignitions and rapid rates of spread and long range spotting will be likely in continuous dead fuel beds. The potential for large fire development will become Normal across all of Central and Southern California May and June as the interior warms up and the offshore wind season comes to an end.



'Fuels are record dry': Weather Service warns of wildfire risk with high winds in forecast

By [Amy Graff](#), SFGATE

Updated 7:07 am PST, Saturday, February 29, 2020

<https://www.sfgate.com/weather/article/Fire-weather-winter-California-Bay-Area-SF-15094781.php>

The end of February typically isn't the time to worry about wildfires in the San Francisco Bay Area, but amid an unusually long dry spell in the middle of winter, the National Weather Service is warning of fire risk Sunday through Monday.

Some parts of California had no rain in February — and are already seeing wildfires

The National Weather Service confirmed that February was the driest on record for San Francisco, Sacramento and other cities around the Northern Sierra foothills.

March 2, 2020, 1:12 PM PST

By Denise Chow

<https://www.nbcnews.com/science/environment/some-parts-california-had-no-rain-february-are-already-seeing-n1147321>

Which Leads Us to PG&E

There is much news about PG&E over the last couple of weeks. We shall begin with a sort of follow-on to the section above on the early fire season beginning in February. Then we have a related piece that states, “California power regulators slapped Pacific Gas and Electric with a \$2.1 billion fine for igniting a series of deadly wildfires that landed the beleaguered utility in bankruptcy.”

And that is just the beginning of PG&E's troubles. “The California Public Utilities Commission (CPUC) president is suggesting several milestones for PG&E to reach as it emerges from bankruptcy. And she leaves open the possibility of having the state revoke PG&E's license to operate and seize control of the company.” That is a longer article and I have excerpted just the first paragraph for this report.

It gets worse, for PG&E, as one judge in court calls PG&E 'this convicted felon' while ripping them for poor safety record. Again, that is a longer article and I have just included the first paragraph here, as that is a report on the same hearing of the first item below.

Yet, as the next item makes clear, “PG&E (is) banking on big profits after utility leaves bankruptcy.” I will not try to even summarize this article. You can go to the link provided, if you wish.

The final item in this section, “PG&E customers pay twice the national average for power,” perhaps answers the previous item of PG&E's optimism about making a nice profit this year.

PG&E says it can't commit to expanding tree-trimming force

Updated: 8:10 PM PST Mar 2, 2020

<https://www.kcra.com/article/pgande-says-it-cant-commit-to-expanding-tree-trimming-force/31199508>

Lawyers for Pacific Gas & Electric said the utility can't commit to hiring hundreds more tree trimmers in the way that a federal judge wants to cut the risk of starting more catastrophic wildfires in California.

U.S. District Judge William Alsup ordered the utility last month to add at least 1,100 more tree trimmers to help prevent trees and branches from falling onto its power lines and igniting. The judge is overseeing PG&E's criminal probation imposed after its natural gas lines blew up a San Francisco Bay Area neighborhood and killed eight people in 2010. He has taken a strong interest in PG&E's

safety record after the company's power lines started a series of wildfires that killed 130 people and destroyed thousands of homes.

PG&E's filing said the company has about 5,500 tree trimmers and plans to train about 2,800 more next year. But the company wants to use that pool of newly trained workers partly to replace out-of-state contractors who were hired at a premium.

The workforce more than tripled in 2019 when PG&E needed to finish a high amount of trimming in the last few months of the year. The company doesn't think it is necessary or financially wise to retain that level of contractors constantly when it could instead spread the work throughout the year.

California regulators rebuke PG&E with \$2.1 billion fine for wildfires

Feb 27, 2020

By Associated Press

<https://www.marketwatch.com/story/california-regulators-rebuke-pge-with-21-billion-fine-for-wildfires-2020-02-27>

Harsher punishment forces shareholders, not customers, to bear cost

SAN FRANCISCO — California power regulators slapped Pacific Gas and Electric with a \$2.1 billion fine for igniting a series of deadly wildfires that landed the beleaguered utility in bankruptcy.

The record penalty imposed Thursday in an administrative law judge's decision boosts the punishment that had been agreed upon in a \$1.7 billion settlement announced in December. Several consumer groups had protested the settlement as too lenient in light of the destruction that PG&E left behind, and the California Public Utilities Commission agreed, upon further review.

The harsher punishment includes a \$200 million payment to California that will be earmarked for people who lost family members, homes and businesses in catastrophic wildfires caused by PG&E's outdated electrical grid and negligence during 2017 and 2018. The fires killed nearly 130 people and destroyed nearly 28,000 homes and other buildings.

The decision will also prevent PG&E from attempting to recover \$1.82 billion from its customers, forcing its shareholders to bear the cost instead. The settlement previously had prevented PG&E from recovering \$1.63 billion.

Utilities Commissioner Suggests Revoking PG&E's License to Operate

February 19, 2020

<https://sfist.com/2020/02/19/utilities-commissioner-suggests-revoking-pg-es-license-to-operate/>

In a new 16-page proposal that's now under review by the powerful California Public Utilities Commission (CPUC), the commission president is suggesting several milestones for PG&E to reach as it emerges from bankruptcy. And she leaves open the possibility of having the state revoke PG&E's license to operate and seize control of the company.

Judge calls PG&E 'this convicted felon' while ripping them for poor safety record

Michael Liedtke, Ap Business Writer

February 19, 2020

<https://www.sfgate.com/news/us/article/Judge-rips-PG-E-for-ghastly-safety-record-leading-15068342.php>

SAN FRANCISCO (AP) — A U.S. judge ripped into Pacific Gas & Electric on Wednesday, saying its executives have put greed before safety and telling officials from the utility blamed for catastrophic California wildfires to plan to add at least 1,100 more tree trimmers to cut the risk of even more blazes.

PG&E banking on big profits after utility leaves bankruptcy

MICHAEL LIEDTKE

Associated Press • February 18, 2020

<https://www.yahoo.com/news/pg-e-banking-big-profits-211423378.html>

SAN FRANCISCO (AP) — Pacific Gas and Electric says it expects to become more profitable than ever after it emerges from bankruptcy and pays off more than \$25 billion in losses sustained in catastrophic wildfires ignited by its outdated equipment.

The nation's largest utility shared its rosy outlook on Tuesday, along with its sobering results for 2019.

PG&E wound up losing nearly \$7.7 billion last year, widening from its previous record loss of \$6.8 billion in 2018.

Besides accounting for its past, PG&E also provided a glimpse at the road ahead. The outlook comes as PG&E tried to counter intensifying pressure from California Gov. Gavin Newsom to come up with a plan that gives it the financial muscle to make badly needed improvements in its decaying electrical grid to reduce wildfire risks.

PG&E customers pay twice the national average for power

By Brandon Rittiman, ABC10

Tuesday, February 18th 2020

<https://krcrtv.com/news/local/pg-e-customers-pay-twice-the-national-average-for-power>

Power is expensive in California.

On average, families and businesses in the state pay 1.6 times the [national average](#) price for a unit of electricity, according to the latest annual data (2018) from the U.S. Energy Information Administration.

In PG&E's monopoly, which covers 40% of California's population, the price is double the national average and rising.

But there's one factor that tends to make a bigger difference than all of those things: what kind of utility you have.

"There's different kinds of utilities: investor-owned utilities and municipal electric utilities," said Barry Moline, who runs the California Municipal Utilities Association. "Generally municipal utilities are 15% to 20% lower than investor-owned utilities, in terms of their costs."

Both kinds of utilities have to pay for two main costs: generation (the cost of making electricity) and delivery (the cost of building and maintaining the lines that bring it to you).

But investor-owned utilities have one more thing they have to pay: profit to shareholders.

Generally, they're allowed to take 10% to 12% as profit.

Feature: Infrastructure

Early in the Trump presidency, the administration put forward a policy that it wanted to make happen--rebuilding America's infrastructure. President Trump announced he wanted to see \$1 trillion invested in that rebuilding program over ten years. While that amount over that length of time does not even maintain existing infrastructure, and the repair and upgrade actually requires about \$3 trillion over five years, even the administration's modest proposal has gone nowhere.

The Feature this week begins with a couple of reports on the economy and where potential legislation stands.

A 13 minute newer video highlights some of the complexity and the problems now characterizing the nation's state of its infrastructure.

Then the main item follows, which is titled, "Your Water Infrastructure: It All Depends Upon the Federal Government." It is a report on the role of the U.S. Army Corps of Engineers and the Bureau of Recreation in building and managing the nation's water infrastructure.

Trump Economic Report: 2020 Growth Depends on Infrastructure Deal

Feb. 21, 2020 (EIRNS)—The annual Economic Report to the President issued Feb. 20 by his Council of Economic Advisors (chief: Larry Kudlow) says that U.S. economic growth in 2020 is likely to be well below 3% unless the President and Congress can enact major infrastructure legislation, as well as another tax cut with a minimum corporate tax floor. Other possibilities are mentioned, such as a phase-two trade agreement with China, but these are the main factors according to the CEA, with an infrastructure agreement being paramount.

The admission that new economic infrastructure is in fact the only real source of new physical-economic demand, is notable; however the CEA rightly considers this extraordinarily unlikely between now and an election. Consequently, it forecasts 2020 economic growth of only 2.4% of GDP — after 2.3% growth in 2019 — a real defeat for a Kudlow who has so often bragged of 4% Trumpian annual economic growth just around the corner.

The President must now consider and act on a situation in which not only manufacturing output and employment, but industrial production including electric and other utilities, fell in the second half and last quarter of 2019, respectively. The various forms of freight shipment — shipping, railroad loadings, truck traffic and orders for new trucks — also showed negative indices in the second half. At this point, with the automobile and electronics industries more or less deeply depressed in Asia and Europe, interest rates on U.S. Treasury securities have again plunged as a signal of financial distress and "safe haven" capital flows. The Treasury's 30-year bond yield fell to an all-time low of 1.89% on Friday.

Thus the one avenue for Trump to turn around physical economic decline is an agreement worked out, not with the Congress, but with the other leading heads of state for the most productive infrastructure investments in the Americas and worldwide, along the lines of the China's Belt and Road Initiative, and for joint space exploration. Nothing would be more important than cooperation to build and export advanced nuclear reactors, including small modular reactors for worldwide use by both developing and industrial countries. If this were done, U.S. credit vehicles are available but much too small, and would have to be scaled up dramatically.

Trump Budget Has New Infrastructure, But Won't Work with Congress

Feb. 22 (EIRNS) — Contrary to previous reports on the White House budget proposal, it takes a very small step toward actual infrastructure investment, in addition to the large leap already reported on funding of NASA's Moon-Mars mission.

The budget proposal does not repeat the 2017 Gary Cohn formula of \$200 billion federal funding over

a decade, with states and cities to provide or get private sources to provide \$800 billion. Rather it proposes \$1 trillion infrastructure spending by the Federal government in a decade, essentially in a bigger-than-usual surface transportation bill. About \$200 billion of that is supposedly for “megaprojects,” but none is named.

The Federal gas tax is named as the funding source but would fall \$450 billion short over the decade, unless substantially increased to more than 30 cents/gallon from 18 cents. Elaine Chao, questioned by Stars & Stripes, suggested “infrastructure bonds” would fill that gap, it reported Feb. 21. The well-known Eno Center on Transportation, through a spokesman, said, “This year it’s actually \$1 trillion in honest-to-God spending by the United States Treasury Department.”

Obstacles are enormous, though. First, the actual investment for a fundamental technological upgrade of U.S. economic infrastructure is five times that level. Second, Congressional committee leaders have noticed; GOP Rep. Sam Graves said, “The Republican House version of the bill won’t be a trillion dollars, I can tell you that right now. It will be a lot further south.” And chair Rep. Peter DeFazio objected that the proposal isn’t green, no “innovative solutions that would tackle carbon pollution.”

Third, the White House now has no infrastructure official who plans and investigates major potential projects that would actually make a difference. Without former Energy Secretary Rick Perry, even its pro-nuclear policy is now non-specific. Again, Trump needs to discuss real transformative projects with leaders of other nations; and needs to do it from the working basis of Lyndon LaRouche’s June 2014 “Four New Laws To Save the Nation.”

America's Infrastructure Is Crumbling

Feb 17, 2020

A 13 minute video.

https://www.youtube.com/watch?v=EdvJSGc14xA&fbclid=IwAR1QcT_36ariFa2mKYfdVKP84GTrH9m1q6Sa0Jta7829pxWaAO6rX8ic8O8

America’s infrastructure is in desperate need of more than \$4 trillion in upgrades and improvements. President Trump campaigned heavily on overhauling the country's crumbling infrastructure and promised to invest big to fix it. VICE correspondent Thomas Morton explores the most vital bridges, tunnels, and waterways in the U.S. to see how much the situation has deteriorated and to find out if the Trump Administration's promise is being kept.

Your Water Infrastructure: It All Depends Upon the Federal Government

The Federal governments two great institutions for building, managing and ensuring that the U.S. population and the economy are provided with the water we need, are protected from flooding, produce electricity and provide recreation facilities-- The U.S. Army Corps of Engineers and the Bureau of Recreation-- are indispensable. A report published this month highlights this reality.

U.S. Army Corps of Engineers and Bureau of Reclamation: A Joint Commitment to the Nation’s Water Infrastructure

U.S. Army Corps of Engineers and Bureau of Reclamation

Published Feb. 3, 2020

<https://www.nwd.usace.army.mil/Media/News-Releases/Article/2072892/us-army-corps-of-engineers->

[and-bureau-of-reclamation-a-joint-commitment-to-the/](#)

WASHINGTON, D.C. --

The U.S. Army Corps of Engineers and the Bureau of Reclamation recently released *The State of the Infrastructure: A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers*. The two agencies have a long history of collaboration to construct, operate and maintain the nation's crucial water-related infrastructure.



The Folsom Dam Auxiliary Spillway project is an approximately \$900-million cooperative effort between the U.S. Army Corps of Engineers and the U.S. Department of the Interior, Bureau of Reclamation.

National water-related infrastructure provides water supply, hydroelectric power generation, navigation, flood control, recreation and other benefits. Combined, the Army Corps and Reclamation oversee and manage more than 1,200 dams, 153 hydroelectric power plants, over 5,000 recreation areas, 25,000 miles of navigable waterways and tens of thousands of miles of canals and other water conveyance infrastructure. Those facilities provide enough water for 130 million people and irrigation for 10 million acres of farmland. And, combined hydroelectric power plants generate renewable electricity for 10 million homes.

The partnership between the Army Corps and Reclamation brings together a wide array of resources that serve to enrich public services as well as water resource management and environmental protection. The agencies regularly assess the health, safety and sufficiency of existing infrastructure and continually work to upgrade aging infrastructure and construct new projects to meet the needs of families, farms and communities.

Affordable power production, reliable water supply, navigation, flood risk reduction, and recreation have a positive impact on the Nation's economy and are a daily way of life for countless Americans. The rigorous and systematic maintenance programs both agencies use ensure these precious water-related resources will be available for years to come.

[Read *The State of the Infrastructure: A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers*](#)

Excerpts from the Report:

State of the Infrastructure: A Joint Report by the Bureau of Reclamation and the U.S. Army Corps of Engineers

<https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/EP%2025-1-117.pdf?ver=2020-02-03-104720-787>

Water-Related Infrastructure

Decades of Federal investment have yielded a robust national portfolio of water-related infrastructure, which represents a diverse and vast inventory of mission-critical, legacy, and strategically-developed assets for the benefit of the American people.

This enormous physical infrastructure is one of our Nation's most valuable assets, providing ongoing power generation, water supply, navigation, flood risk reduction, recreation, and other benefits. The importance, extent, and impacts of water-related infrastructure managed and maintained by the Army Corps and Reclamation are large and broad, impacting the Nation's economy daily.

The U.S. Army Corps of Engineers' & the Bureau of Reclamation's Combined have built and manage:

1,200 Dams

5000 Recreation Areas

153 Hydroelectric Powerplants powering 10 million homes

150 Million acre-feet of water provided to 130 million people and irrigating 10 million acres

Tens of Thousands of Miles of Canals

25,000 Miles of Navigable Waterways

Dams

Dams are major components of a comprehensive strategy to address water resource challenges posed by drought, flooding, depleted aquifers, environmental needs, energy demands, and population increase and movement in the United States. The Army Corps and Reclamation evaluate the condition of dams, dikes, and levees, and monitor the performance of facilities to manage the risks posed to the public due to these facilities. This is done through common Federal public protection guidelines which provide a framework for managing risk for life loss, economic, cultural, and environmental consequences. The guidelines also help maintain the ability of dams and related facilities to provide reliable water, power, and flood risk management benefits.

One of the Army Corps' primary missions is flood risk management and reducing risk from flood events. Reclamation's dams also provide flood control benefits in many cases, but the agency's mission is focused on water storage to irrigate farms and ranches, supply drinking water, enhance fish and wildlife habitats, and create public recreational opportunities. Dams managed by both the Army Corps and Reclamation provide water for generating a major portion of the United States' hydroelectric power.

Hydropower Facilities

The Army Corps is the largest producer of hydroelectric power in the United States and owns 75 hydropower facilities with a total generating capacity of approximately 24,000 megawatts. Reclamation is the second largest producer of hydroelectric power in the Nation and owns 78 facilities; Reclamation directly operates and maintains 53 of these facilities, which have a total generating capacity of approximately 15,000 megawatts. Reclamation and Army Corps facilities generate more than 100 million megawatt-hours of electricity each year, the equivalent annual demand of more than 10 million U.S. homes.

Navigation – Ports, Locks, and Dredging

The Army Corps' primary navigation responsibility is to provide safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems for the movement of commerce, national security needs, and recreation. The Army Corps operates and maintains 25,000 miles of navigable waterways, channels and harbors, including 239 lock chambers at 193 sites and 1,067 coastal, Great Lakes, and inland harbors that directly serve 40 states. Coastal channels and inland and intracoastal waterways maintained by the Army Corps support the Nation's economy and security and contribute to state and local government economic development.

Canals and Pipelines

Reclamation water conveyance facilities include approximately 8,000 miles of main line canals. Most are open channel and many are lined. Additionally, Reclamation owns inverted siphons and pressurized

pipelines used for the conveyance of irrigation water to irrigation districts or water districts for direct delivery. Reclamation's water conveyance systems range in age from over 100 years old to newly-constructed.

Recreation Facilities

The range of recreation infrastructure includes boat launches, marinas, campground facilities, roads, parking lots, and numerous buildings and structures that require routine inspection, maintenance, repairs, and replacements. These assets provide safe access to recreation for hundreds of millions of visitors without impacting the dynamic multiple missions of the agencies' water-related infrastructure.

The Army Corps is one of the leading Federal providers of outdoor recreation with 270 million visits at more than 400 lake and river projects in 42 states. The Army Corps and non-Federal entities manage 4,865 developed recreation areas on more than 12 million acres.

Reclamation manages almost 8 million acres of land and water, most of which is available for public outdoor recreation. More than 240 developed recreation areas are managed by Reclamation or its non-Federal recreation partners.

Bridges and Roads

Transportation infrastructure is critical for supporting the range of missions associated with water-related infrastructure, including flood control, hydropower production, navigation, water supply, recreation and environmental protection. Public roads and bridges are key to allowing safe public access to Federal lands for recreation and for providing critical transportation corridors across or along the projects. Both the Army Corps and Reclamation have a significant quantity of bridge and road assets and participate in the Federal Land Transportation program under the Federal Lands Highways Office.

Levees

Levees are typically earthen embankments or concrete floodwalls, designed and constructed to contain, control, or divert the flow of water to reduce the risk of temporary flooding.

The Army Corps'levee portfolio includes about 2,220 levee systems totaling 14,287 miles in length. Levee sponsors operate and maintain over 2,000 levee systems that make up roughly 70 percent of the length contained in the entire portfolio; the remaining systems are operated and maintained by the Army Corps.

Protecting Investments and Planning for the Future

Reliable performance of the Nation's water resources infrastructure is essential to the asset portfolio's ability to deliver safe and dependable service. The Army Corps and Reclamation operate, maintain, and manage more than \$232 billion and \$111 billion of the Nation's water-related infrastructure assets, respectively. From navigation locks and hydropower plants to dams and recreation areas, these assets are a vital part of the Nation's economy, safety, and security, and must be managed in an accountable and responsible manner.

Water Supply

Army Corps and Reclamation facilities store water to provide municipal and industrial and irrigation water which supports the health of communities, food supplies, and industry. Reclamation supplies water to 10 million acres of farmland and over 140,000 farmers in the western U.S.

The Army Corps has 136 multiple purpose projects that contain storage for water supply in 26 states. These projects provide nearly 10 million acre-feet of water supply storage for municipal and industrial use, sufficient to meet indoor household needs of 101 million people.