

STORM WARNINGS

Vol. 3, Issue 3
Oil's Unsustainable Surge



R. Michael Conley
Founder

The *Storm Warnings* newsletter is part of a larger initiative by its founder, R. Michael Conley, to carry the message to others.

"The message is frightfully simple: We are heading into a perfect storm that will forever change our lives, and we need to act on it while there is still time," said Conley.

Under the overall umbrella of his company, Weathering the Storm, LLC, its mission to *awaken, engage and help others weather the storm* is carried out in a number of ways.

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The *perfect storm* clock is ticking. An intertwined array of recent energy and economic events has accelerated the countdown. These events – while confirming the trajectories of the storm – have also led to some faulty conclusions. In this article, R. Michael Conley, the publisher, will talk about how the recent drop in oil prices and rise in shale oil production has sparked an oil supply surge that is unsustainable and, over the long term, potentially harmful.

WTS: Headline news stories today hint that the 20% reduction in oil prices and the shale oil "revolution" in America may be creating a new energy "norm." What's your take on this?

Conley: The topic crops up frequently at presentations I make. Look, I love getting gas for my Prius at under three bucks a gallon and wish it would go on forever, but it won't. Though some see the current glut – or surge – of oil as a new norm, I think of it as oil's unsustainable surge.

The "surge," for the moment, may be a huge shot in the arm for consumers leaving them with more discretionary dollars to spend from savings at the pump, but it's only a temporary fix. In some ways, it's harmful in that it lulls us to sleep – dulling any sense of urgency to address our energy challenges in a more sustainable manner. Indeed, some use the surge as a reason for why we shouldn't "engage in 'job-killing' alternative energy schemes that will only screw up our oil-based *Nirvana*."

WTS: What makes you so sure the oil "surge" is not our new norm?

Conley: The facts, my friend; the facts: A trifecta of events have created a temporary surge in oil supply and lower prices. First, the stagnant global economy has reduced oil *demand*. Second, the shale oil "revolution" in America has created a temporary surge in oil supply, and last, demand in several developed countries has flattened due to *conservation* and *energy efficiency* efforts.

In effect, the stars are all in alignment for this surge, but the fundamentals have remained unchanged. That's hardly a prescription

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"The *Storm Warnings* newsletter, which provides an in-depth quarterly look at a specific topic, is one way we hope to awaken and engage people, but we encourage folks to log in to our web-site for a full menu of offerings and services," Conley said.

(www.weatheringthestorm.net)

The website will provide further details on other initiatives. Among them:

1. Lethal Trajectories – Conley's futurist novel on what it will be like to live through a perfect storm crisis
2. *Weathering the Storm Guide* – A guide on how to prepare for the storm
3. Weathering the Storm Seminars – In-depth seminars that are now available
4. Blog, links, other resources, and the Storm Warnings newsletter.

About the Founder: Mike Conley is the Founder of Weathering the Storm LLC, and currently serves as Chairman and CEO of the Conley Family Foundation. As a former Fortune 500 business executive, author,

for creating a new "norm."

The global oil arena is dynamic; subject to rapid change as evidenced by recent trends. Consumption patterns ebb and flow; shale oil production is limited by geologic and economic constraints, and demand reduction efforts in developed countries can be quickly offset by rising consumption levels in developing countries. In China and India, for example – with eight times our population and a growing appetite for cars – a modest uptick in per capita car ownership could easily change the global demand equation in a heartbeat.

WTS: Could you say more about how geologic and economic constraints can limit future production?

Conley: Geologically, oil is a finite resource that we've been using up at a prodigious rate for well over 75 years. The easy oil – oil we refer to as "*conventional*" oil – has peaked. Though we've managed to maintain *conventional* global supply levels at about 75 mb/d (million barrels per day), we can't seem to increase these levels despite rising oil prices that would make new drilling quite profitable. Against this 75 million barrel supply, we now burn over 92 million barrels daily. That's a daily deficit of over 17 million barrels.

Worse, oil from these existing conventional oil wells is declining at a rate of 5-7% every year – about four million barrels per day – and a loss we must make good on before we can actually increase net new production. No small amount; that's more than Iraq's daily production. We're not finding new oil at the rate we're using up current reserves. In fact, we use about four barrels of conventional oil for every new one we find; drawing down on our oil "savings" account far faster than we can replenish it. Not a good, long term picture.

WTS: Let's back this train up – your numbers don't jibe: How can we produce 75 mb/d of *conventional* oil against a demand of 92 mb/d and still get by?

Conley: Good question. The daily 17 million barrel shortfall of *conventional* oil I've alluded to is made good by the production of "unconventional" oil. Unconventional oil includes fuel stock such as tar sands, heavy oil, shale oil, and deep water oil. Though

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lecturer, and public policy activist, Conley has written and spoken frequently on topics related to the perfect storm. He graduated from the University of Minnesota, after serving in the United States Navy, and later completed a post-graduate program at Stanford University. He is also active on several boards and advisory groups.

recoverable, unconventional oil is far more expensive to extract, process, and deliver. Its net energy value is also lower in that it takes a lot more energy just to extract and commercialize it. Given production costs and other geological factors, there are clearly constraints on future growth rates.

Production costs for Bakken shale oil, for example, are higher than that of conventional oil. The horizontal drilling and fracking operation – requiring 2-7 million gallons of water – is expensive, and the fracking enema itself produces an initial oil surge that rapidly declines by as much as 40% a year thereafter. With the high rig count now deployed in the Bakken, the production surge looks great, but it will be a huge challenge to sustain these growth rates in light of the sharp decline rates from existing wells. This is something oil forecasters often neglect to mention.

The costs for deep water drilling are even more staggering. Whereas deep water drilling to a depth of 500-600 feet was the norm not all that long ago, it can now involve drilling down to depths of 10,000 feet or more *before* hitting bedrock, and that's expensive.

Bottom line: We've blown through much of the "easy-to-get" conventional oil, and it will be tougher sledding – and costlier – going forward as we rely more on unconventional oil to meet future demand. We can't escape the immutable laws of geology; laws that dwarf any surges we may see now or in the future.

WTS: Does that mean we'll run out of oil?

Conley: No, but we might eventually run short of "affordable" oil. With a supply of cheaper "conventional" oil that has now peaked – and will soon decline – we are left mainly with costlier unconventional oil to meet future incremental demand. The price point at which this oil becomes "unaffordable" is anyone's guess, but the ripple effect along the way will put a real hurt on the economies of the world.

Parenthetically, the Saudis can produce conventional oil profitably at a fraction of the cost associated with Bakken oil production. A new Bakken oil well requires a market price of something like \$70-80 a barrel to reach ROI targets; a new tar sand well in Canada somewhere north of \$80 per barrel. As our total oil production mix shifts to a higher percentage of unconventional oil, it doesn't take a rocket scientist to figure out future cost implications.

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WTS: How long will the oil prices stay low?

Conley: Not long, I suspect. It's interesting how desensitized we've become to rising oil prices. Pump prices below three bucks a gallon seem like a bargain now, but that price would've seemed unimaginably high even a few years back.

Today's lower oil prices reflect a "surge" based on unsustainable circumstances. Oil prices could either rise gradually or, given the volatility of the global oil arena, sky-rocket overnight. We've seen it before: Trouble in the Middle East; a terrorist attack on a pipeline; change in the petrodollar value, loss of Iraqi oil, or whatever. Case in point: The price of oil rose and fell from \$147 to \$35 dollars per barrel within a few short months preceding and following the 2008 market crash. It can happen that fast.

Despite these uncertainties, we are hardwired to think in the moment. Instead of using the respite from higher prices to prepare for harder times, falling oil prices are more likely to spark the sales of SUVs; slow the growth of renewable energy initiatives, and intensify the clamor that we're on the cusp of energy independence – with an unlimited supply of affordable oil – if we'll only "drill, baby, drill." You can't make this stuff up...

WTS: What about the rest of the world? Who are the winners and losers in the current oil surge and what are the implications?

Conley: The oil-exporting nations – Russia and OPEC, in particular – are the losers, and it's a bonanza for oil-importing nations with limited domestic oil production. The Saudis have opted to cut prices to maintain market share – and, perhaps, weed out marginal competitors – rather than lower their production to boost prices. The ensuing economic impact on Iran and Venezuela has been devastating, and the hurt it puts on the Russian economy will far exceed that of recent sanctions imposed on them.

There's another consideration: While OPEC nations can produce conventional oil cheaper than countries producing unconventional oil, they have a high "social cost" built into their cost structures. Revenue losses from falling oil prices will put their social programs and domestic oil subsidies at risk – a risk that can invite riots, violence and even the overthrow of a government. Panicky nations do panicky things, and the unintended consequences of a sustained period of lower prices could lead to an infinite array of destabilizing events. So, you tell me: Who wins and who loses?

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WTS: In closing, you mentioned we should use our time wisely to get better positioned for a less favorable oil environment. What specifically would you do?

Conley: There are at least three things we can do in the near future:

1. Build up our Strategic Petroleum Reserve (SPR) while oil costs are "low." An enlarged SPR will give us a strategic safety cushion to buttress the inevitable oil crises we'll face in the future,
2. Rationalize our current energy policies: For openers, expand our Enhanced Oil Recovery (EOR) efforts to eke out more oil from existing wells, and come to closure on what our pipeline and rail car transport policy will be for greater predictability going forward, and
3. Forget all this oil surge nonsense and get serious about developing a strategic national energy policy that reduces our carbon footprint and positions us for the future in a sustainable and responsible manner – while there is still time. Please visit our link for more information: "[Energy 101: There is a Better Way](#)".

For more information on how to get engaged and leverage your efforts, please visit our website at:

www.weatheringthestorm.net