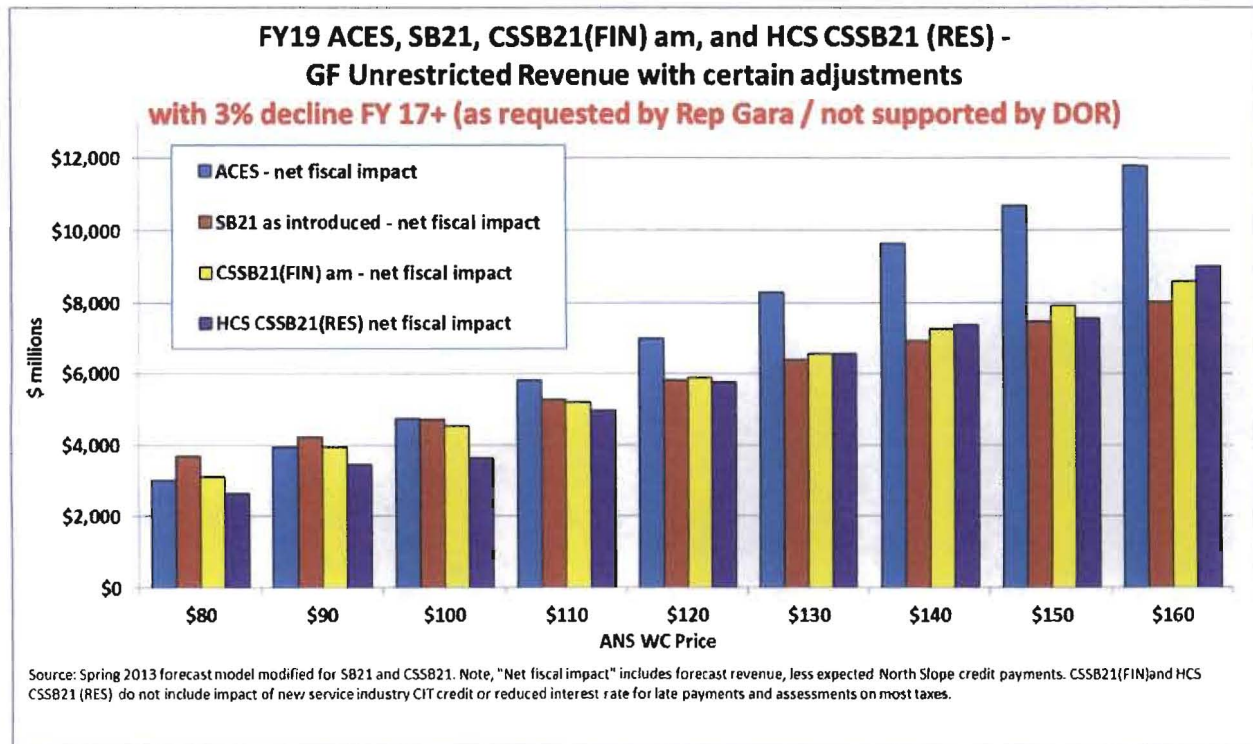
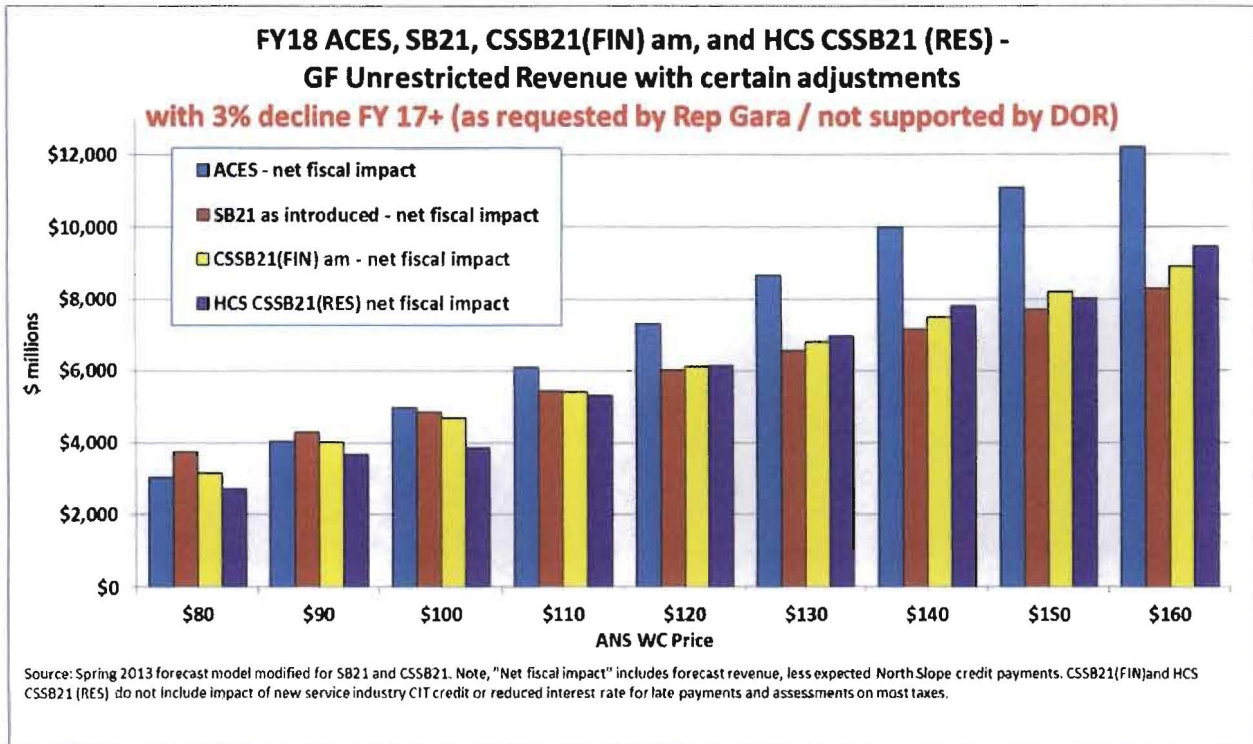


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Sending AK tech abroad

ConocoPhillips is using technology to increase production in Alaska, Outside

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For Petroleum News

ConocoPhillips plans to spend some \$2.5 billion in Alaska over the next five years using a collection of drilling technologies to mitigate declining production on the North Slope.

The largest producer in Alaska believes it can get some 35,000 barrels per day of incremental production from its three legacy North Slope oil fields by using 4-D seismic, coiled-tubing drilling and casing drilling to lower development costs and access additional resources, but as with any discussion of investments, the company insists it could do more if Alaska policymakers would make the fiscal regime more “competitive.”

The 35,000 barrels per day would stem production declines in Alaska to some 3 percent per year by 2017, ConocoPhillips' Executive Vice President of Exploration and Production **Matthew Fox** said during the company's annual analyst day on Feb. 28. And, Fox noted, if ConocoPhillips brings the Alpine West/CD-5 satellite into production as scheduled in the 2015-16 timeframe, the annual decline could drop to some 2 percent.

The goal of the \$2.5 billion program is to use newly perfected techniques to suck additional oil out of Prudhoe Bay, Kuparuk River and Alpine, but with tax changes “we can see additional opportunities that we could take advantage of to grow production in Alaska and to grow production through the Trans-Alaska Pipeline System,” Fox said.

A pair of techniques

The program involves two techniques “honed” in Alaska.

The first brings down the cost of developing smaller oil pockets. In it, ConocoPhillips uses time-lapse 3-D seismic (or “4-D” seismic) to “illuminate pockets of oil that are in separate fault blocks or for whatever reason are not producing into an existing well bore,” according to Executive Vice President of Technology and Projects Alan Hirshberg. “We could access these pockets using conventional drilling, but it’s just not economic.”

With a small tool at the end of coiled tubing equipment, ConocoPhillips can “twist and turn through the rock.” This tool can turn more than 60 degrees over a 100-foot stretch of well, which “allows us to go right to these pockets that we found with the 4-D,” he said.

Using this technique, ConocoPhillips recently drilled an “octolateral” well at the Kuparuk River unit. The well is a vertical hole with eight horizontal wells snaking out in different directions to target bypassed deposits. “We’ve actually found eight different zones near this well bore that we could go and hook up using coil-tubing drilling. ... That’s a very cost effective way to get at those zones that weren’t producing before,” Hirshberg said.

The second technique allows ConocoPhillips to access deposits once thought impossible to reach. Using “steerable drilling liners,” the company can drill through unstable reservoirs or low-pressure formations to reach deeper targets. “Normally when you have these well bore instabilities, if you try to drill and then come back and run casing, you can’t do it fast enough because the well bore collapses. So here, we’re actually using the casing to drill,” Hirshberg said. “And so the casings are already in place as we drill the hole. That gives us a mechanical method to be able to still access those resources.

Base development

It’s unclear whether the investment is any different than normal fieldwork.

Earlier this year, ConocoPhillips said it planned to spend “about \$1 billion” in Alaska in 2013, a slight increase over its 2012 budget meant to accommodate CD-5 development.

“When you look at the base development speed and pace in the legacy fields, it’s the same (budget) as 2006,” ConocoPhillips Alaska President Trond-Erik Johansen said.

Between 2005 and 2011, ConocoPhillips spent \$733 million per year in Alaska, on average, with a low of \$666 million in 2007 and a high of \$1.4 billion in 2008. At \$2.5 billion, the new five-year announced plan would break down to \$500 million per year, in addition to other activities in the portfolio, such as CD-5 and Chukchi Sea exploration.

ConocoPhillips believes legacy fields are the “key” to stemming declines, but has said it cannot make the necessary investments under the existing tax system and it believes the proposed revision — in Senate Bill 21 and House Bill 72 — “does not contain sufficient investment incentives for legacy fields to offset Alaska’s high cost environment.”

Made in Alaska

Meanwhile, ConocoPhillips is exporting its Alaska technology Outside.

The \$2.5 billion Alaska program is part of a larger effort by ConocoPhillips to increase production across its portfolio by some 600,000 barrels of oil equivalent per day by 2017.

“Of the growth that we’re talking about, about half of it is going to come from oil production. ... About 70 percent of that oil production comes from the Lower 48 and the rest of it is coming from Malaysia and projects in Europe,” Chief Financial Officer Jeffrey Sheets said during the meeting. “And so where it’s not coming from is places (where) we’ve had relatively higher tax rates, like Alaska.”