

Climate legislation would boost enhanced oil recovery, he says

## **Environmentalist: Use CO2 to produce oil**

By DUSTIN BLEIZEFFER - Star-Tribune energy reporter | Posted: Wednesday, June 30, 2010

For George Peridas, it's a no-brainer: Take carbon dioxide -- a greenhouse gas -- and inject it into existing oil fields to boost domestic oil production.

It's referred to as CO2 enhanced oil recovery, and it's a strategy that has already been used to stem Wyoming's decades-long oil production slide and created hundreds of new jobs in the state. The largest such project is Anadarko Petroleum's CO2 project at the historic Salt Creek field north of Casper.

Peridas, a scientist at the Natural Resource Defense Council's Climate Center, is an advocate because of the many environmental benefits: There's a net gain in curbing CO2 emissions, and the industry doesn't have to drill in new and sensitive areas offshore or onshore.

But convincing the oil industry to support climate change legislation for the benefit of enhanced oil recovery is a hard sell.

During Peridas' talk at the fourth annual Wyoming CO2 Conference in Casper Tuesday, one person in the crowd declared the notion "remarkable," and said the various versions of climate legislation proposed so far in Congress are dangerous and would triple energy costs.

Peridas said that getting behind CO2 injections for enhanced oil recovery is counter-intuitive for many in the environmental industry. But the NRDC has come to embrace the strategy as an opportunity to develop the infrastructure needed for both short-term and long-term carbon sequestration.

"I realize that some of you -- maybe even most of you -- don't believe in climate change. I believe you're wrong," Peridas said. "We are strong advocates of (enhanced oil recovery) and believe it can be done safely and effectively."

The NRDC estimates using CO2 to revitalize production from America's existing oil fields could yield up to 10 years worth of national oil consumption. About 400 billion barrels of oil remain untouched in the nation's existing oil fields, according to some industry estimates.

In Wyoming, Anadarko aims to utilize CO2 injection to recover some 100 million barrels of oil in Salt Creek that was unreachable via conventional technologies. In the process, Anadarko has located and plugged hundreds of unrecorded wells and will potentially store enough CO2 to offset the equivalent of one year's emissions from 500,000 cars.

There are a handful of other CO2 enhanced oil recovery projects ongoing in Wyoming, and dozens of companies are actually anxious for a CO2 supply to revive dozens more oil fields.

But there are large up-front costs and logistical challenges associated with CO2 for enhanced oil recovery. So far, the injection of CO2 into an oil reservoir for oil production isn't considered "carbon sequestration" in most regions of the United States, and therefore wouldn't qualify for carbon credits.

That remains a point of debate in climate legislation.

Also, there's a limited supply of clean CO2. So far the technology to capture a pure enough stream from coal-fired power plant smokestacks remains a technical and financial challenge.

"It's one thing to be able to do something technically. It's another to be able to pay for it," said James Holtkamp, who manages the global climate change practice division of the law firm of Holland & Hart.

In a phone interview, Holtkamp said that in order for CO2 enhanced oil recovery to qualify for carbon credits, regulations must be in place to verify injection and monitor the CO2 to make sure it stays in place, among other things. These add to the cost.

"With sequestration, the whole idea is to have it (CO2) down there permanently," Holtkamp said.

Peridas said several versions of climate legislation do include financial incentives to overcome the costs of carbon capture. By placing a cap on carbon emissions and deploying carbon capture, the oil industry would soon find a large volume of clean CO2 in areas close to candidate oil fields, he said.

And in light of the Gulf oil spill disaster, the NRDC thinks it makes sense to utilize America's existing infrastructure to boost domestic oil production rather than continue to drill in sensitive areas.

"Much more is known about these oil reserves, and there's a far larger potential to recover from enhanced oil recovery than (exploring new fields)," Peridas said.

The fourth annual Wyoming CO2 Conference is organized by the Wyoming Enhanced Oil Recovery Institute. It continues today at the Parkway Plaza in Casper.

Energy reporter Dustin Bleizeffer can be reached at (307) 577-6069 or [dustin.bleizeffer@trib.com](mailto:dustin.bleizeffer@trib.com). Go to <http://tribtown.trib.com/DustinBleizeffer/blog> to read Dustin's energy blog.