

Why 45Q Matters – and Why It's Not Enough

Posted on March 22, 2018 by Rich Powell and Justin Ong

Congress fixed the Section 45Q tax credit as part of a broader budget deal signed into law in February. It was a big, big deal. This incentive would accelerate technologies that capture, store and utilize carbon emissions from existing and new coal and natural gas plants, as well as industrial facilities that produce a range of U.S. products. The credit also applies to emerging direct air capture technologies (think machines that selectively vacuum CO₂ out of the air).

For background, Congress first established the 45Q incentive as part of the Energy Improvement and Extension Act of 2008. Over the next decade, it became clear that the incentive was not accomplishing what policymakers envisioned, leading to a bipartisan effort to make the credit more attractive for private investment. Among other changes, the recent update replaces an absolute credit cap with a deadline (in order to reduce developer uncertainty) and expands eligibility to smaller industrial facilities.

That means more projects to capture carbon could be developed.

Section 45Q Can Change the Economics of Carbon Capture

That will enable more capturing of carbon for geologic storage. Proposed business models also look at economic opportunities, including utilizing CO₂ for enhanced oil recovery and, in the longer term, manufacturing commodities such as

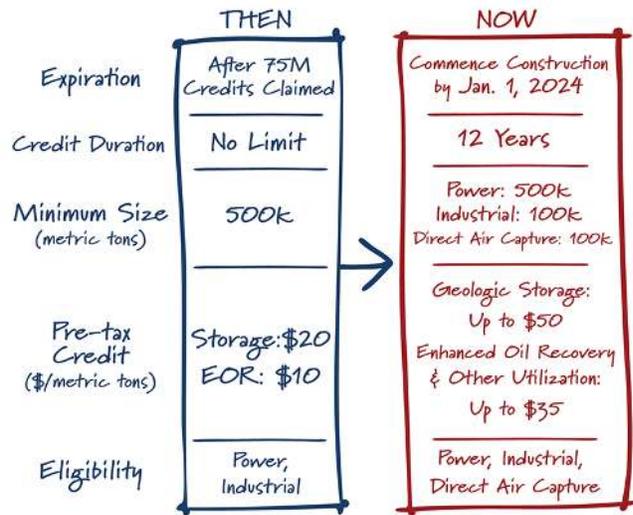
sneakers, toothpaste and building materials like cement.

Carbon capture, utilization, and storage innovation could be worth tens of billion of dollars – an opportunity that can be seized by the U.S. not just domestically but also in helping deploy these technologies abroad.

That includes India, a serious player in global energy and climate change talks but also a country that imports three-quarters of its oil. Captured carbon will help them

build a domestic oil supply through enhanced oil recovery. The Middle East – which amazingly still pumps natural gas into the ground to enhance recovery of oil – is also increasingly thirsty to mimic the U.S. in injecting CO2 into the ground instead for that enhanced oil recovery. Further down the line could be African nations prepping for electrification.

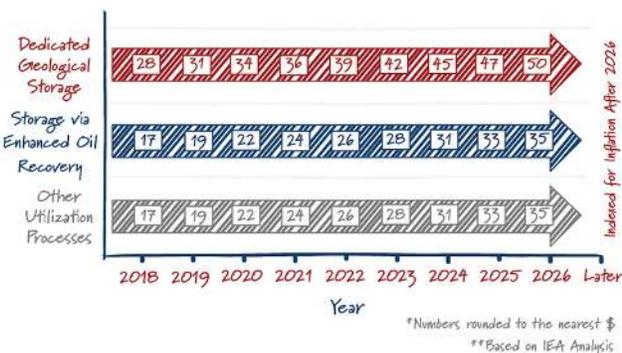
But a really ambitious agenda is still needed to propel carbon capture technologies into the mainstream, drive down costs and instill sufficient investor confidence.



THE FUTURE

The promise of carbon capture technology can't rest on the recent 45Q fix alone. For one, the recent extension limits the start-construction deadline to just six more years. And even in the interim, we need more regulatory and policy reforms similar to the package of incentives and policy gateways that benefited the early days of wind and solar power expansion.

45Q Credit by Year and End-Use (\$/Metric Ton)



- Ensure steady and sufficient Department of Energy research, development AND demonstration dollars.
- Authorize federal private activity bonds, a structure that enables private-sector projects to attract capital at low public-sector interest rates.
- Modify federal power procurement standards to expand the definition of

“clean energy” to include carbon capture

technologies

- Foster corporate procurement and promotion of carbon capture technologies to help drive up public perception
- Simplify the Clean Air Act’s New Source Review permitting process to facilitate carbon capture projects
- Streamline permits for and clarify oversight of interstate pipelines carrying the carbon dioxide

It’s quite a list. The good news is the 45Q fix was a major hurdle that was overcome and will be the anchor that drives a lot of these other needed changes. And politically, it showed the art of the possible in bridging hardened partisan divide, including on the always-sensitive subjects of climate change and domestic oil production.

But we have a lot of work left to do to get these projects up and running at scale.

View more of [Jay & Rich’s Takes](#) and let us know what you think at jaylistens@clearpath.org.

[PREVIOUS](#)

◀ [ICYMI – Congress Gave Nuclear Power Biggest Boost in a Decade](#)

[NEXT](#)

[Why We Need “Moonshot” Clean Energy Tech Goals](#) ▶

Related

[ICYMI -
Congre
Gave
Nuclear
Power
Biggest](#)

[Why W
Need
“Moons
Clean
Energy
Tech Gc](#)

[What
Carbon
Captur
Means
For
Natural](#)

Boost in
a Decade

March 8,

Gas

February

April 13,
2018

7, 2018

2018:
Turning
The Corner
Toward
U.S. Clean
Energy
Dominance
January 1
2018

A Vision
For Clean
Energy
Dominance
January 4
2018

The
Future
of Clean
Energy
- Grid-
Scale
Storage
December
8, 2017

ClearPath Foundation

611 Maryland Ave NE
Washington, DC 20002

1355 Greenwood Cliff
Charlotte, NC 28204

For Information

info@clearpath.org

For Press

media@clearpath.org



© 2018 ClearPath Foundation

ClearPath is a 501(c)(3)