

METHANE ABATEMENT AND THE ROLE OF THE PRIVATE SECTOR

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Environmental Law Is Changing



Federal Command and Control Era – 1969 - 1990

No Major New Federal Environmental Laws Since 1990 CAA

No Major Federal Climate Legislation

Yet Major Action Since 2020 on Climate

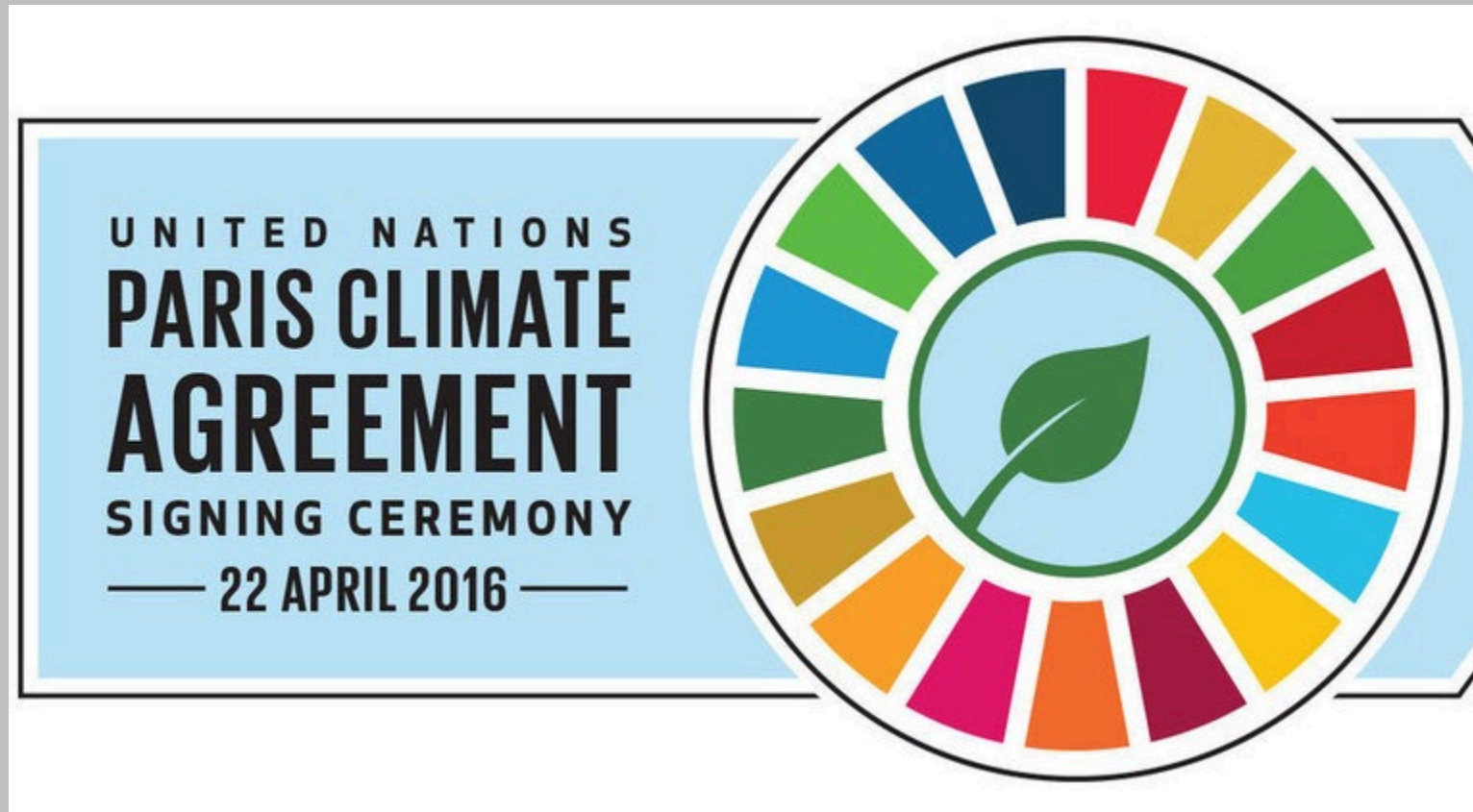
Why?

Private Sector Is Mobilizing Absent Legislation

Emerging Role of Global Commerce and Multi-National Corporations



Paris Climate Accords 2016





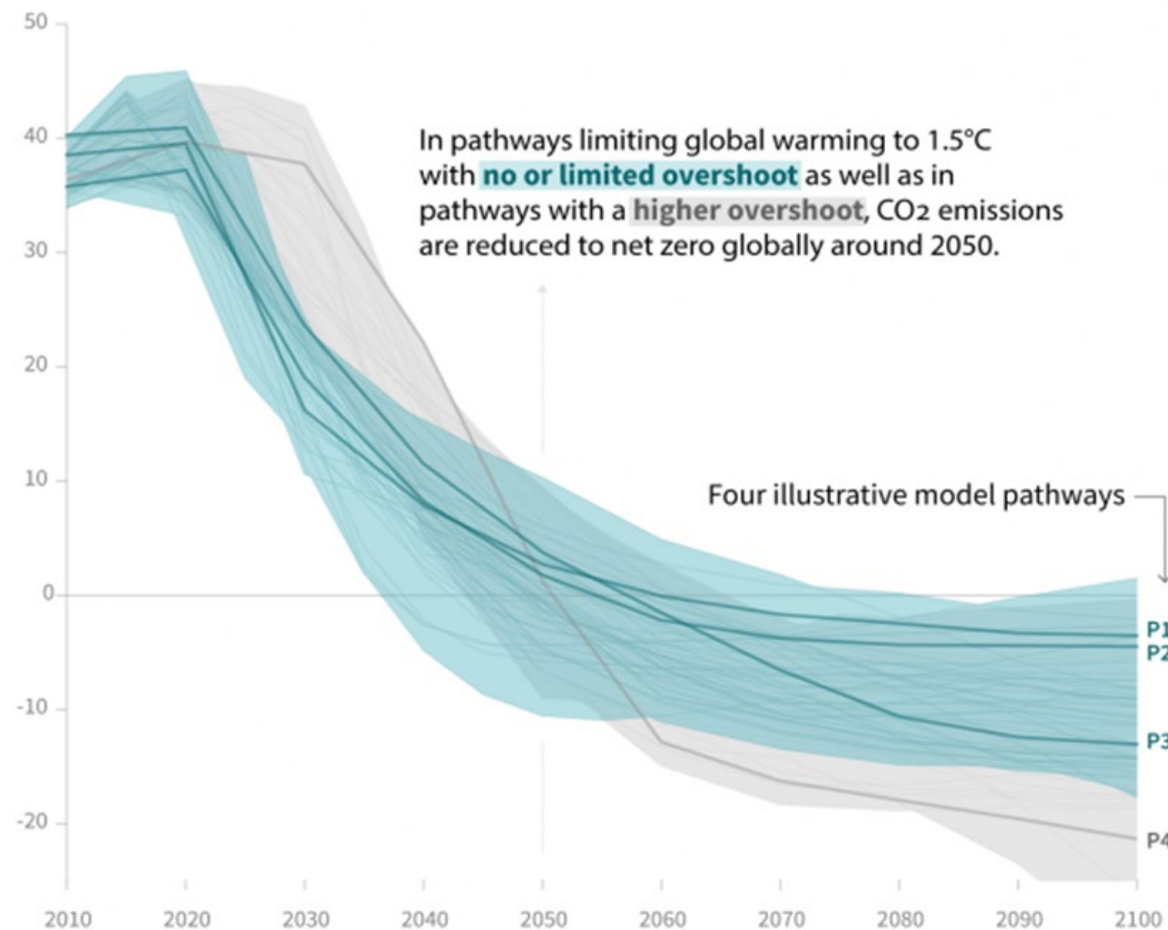
Energy Transition



Time Frame for Net Zero?

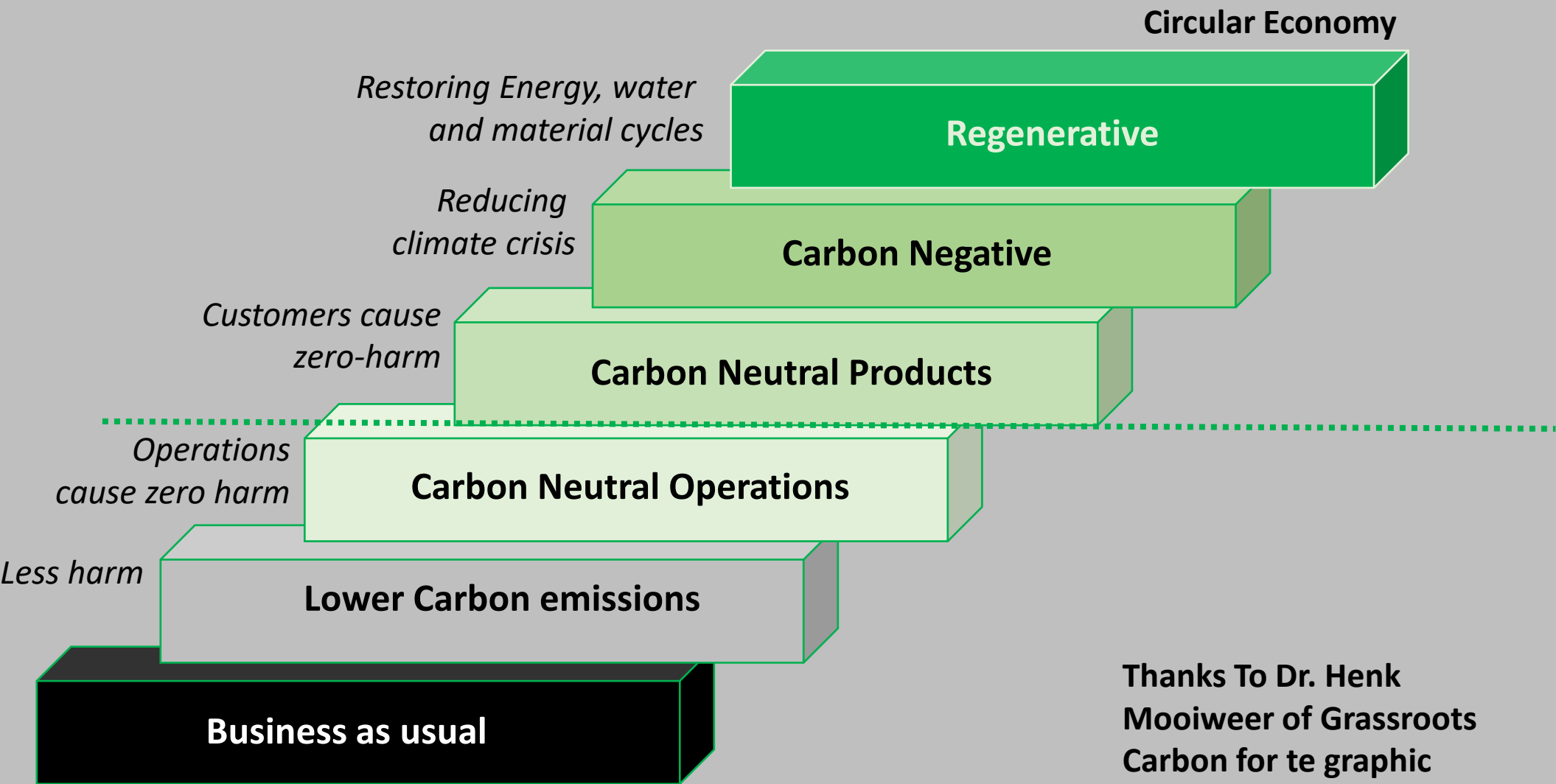
Global total net CO₂ emissions

Billion tonnes of CO₂/yr



From the IPCC

Corporate Targets Regarding Carbon Strategies



Controlling Air Pollution from the Oil and Natural Gas Operations

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- Oil and Natural Gas Air Standards Home
- Basic Information
- Actions and Notices
- Implementation

EPA's Final Rule for Oil and Natural Gas Operations Will Sharply Reduce Methane and Other Harmful Pollution.

December 2, 2023 -- EPA has issued a final rule that will sharply reduce emissions of methane and other harmful air pollution from oil and natural gas operations -- including, for the first time, from existing sources nationwide. The final action includes New Source Performance Standards to reduce methane and smog-forming volatile organic compounds from new, modified and reconstructed sources. It also includes Emissions Guidelines, which set procedures for states to follow as they develop plans to limit methane from existing sources. Oil and natural gas operations are the largest industrial source of methane pollution in the U.S.

Methane is a climate "super pollutant" that is more potent than carbon dioxide and is responsible for approximately one third of current warming resulting from human activities. Rapid, sharp cuts in methane can generate near-immediate climate benefits and are a crucial addition to cutting carbon dioxide in slowing the rate of warming of Earth's atmosphere.

Regulatory Documents

- Final Rule and Regulatory Text (pdf) (5.9 MB)
- Regulatory Impact Analysis (pdf) (3.3 MB)
 - Supplementary Material for the Regulatory Impact Analysis: Report on the Social Cost of Greenhouse Gases (pdf) (8.8 MB)
Note: EPA reposted this file on 12/5/23 to correct bookmark errors.
 - Additional Information on the Social Cost of Greenhouse Gases Report

Fact Sheets

- Key Things to Know About EPA's Final Rule for Oil and Natural Gas Operations (pdf) (184.1 KB)
- La EPA publica una norma final para reducir el metano y otros agentes contaminantes de las operaciones de petróleo y gas natural (pdf) (173.3 KB)
- EPA's Final Rule for Oil and Natural Gas Operations: Overview (pdf) (183.7 KB)
 - Cuestiones importantes a saber sobre la norma final de la EPA para reducir el metano y otros agentes contaminantes de las operaciones de petróleo y gas natural (pdf) (184.7 KB)
- Technical Fact Sheet: Appendix K: Requirements for Using Optical Gas Imaging, Applied to Natural Gas Processing Plants (pdf) (180.9 KB)

Tables

- Table of Covered Sources by Site: EPA's 2012, 2016 and 2023 Rules (pdf) (227.7 KB)
- Summary of Requirements: Final New Source Performance Standards and Emissions Guidelines (pdf) (248.2 KB)

Presentation

- EPA's Final Rule for Oil and Natural Gas Operations (pdf) (370.5 KB)

Upcoming Trainings

EPA will hold trainings in early 2024 to provide an overview of the final rule for communities, Tribes, tribal environmental professionals and small businesses. The Agency also will hold trainings on how to apply to use alternate test methods for detecting methane and on how to apply to be EPA-certified for the Super Emitter Program. We will post information on the trainings on this web page as they are scheduled.

EPA's New Methane Oil & Gas Rule:

OAR-2021-0317 by any of the following methods:

- Hand/Courier Delivery: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m.—4:30 p.m., Monday–Friday (except Federal holidays).

Instructions. All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to <https://www.regulations.gov/>, including any

session 15 minutes after the last pre-registered speaker has testified if there

PA
<https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry> for any updates to the information described in this document, including information about the public hearing. For information or questions about the public hearing, please contact the public hearing team at (888) 372-8699 or by email at SPPDpublichearing@epa.gov.

The EPA will begin pre-registering speakers for the hearing no later than 1 business day following the publication of this document in the **Federal Register**. The EPA will accept registrations on an individual basis. To

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Structure Under Section 111 of the Clean Air Act: New Source Performance Standards (NSPS)

- Section 111(c) issued New Source Performance Standards (NSPS)
 - Applies to new sources constructed on or after December 6 2022 or later
 - **EPA 0000b** is the NSPS for new sources
- Section 111(d) – Requires states to develop State Implementation Plan (SIP) to implement NSPS to Existing Sources constructed before December 6, 2022
 - **EPA 0000c** is the “Emission Guidelines” for SIP development
 - States have 2 years to develop rules
 - States have 5 years to implement rules



New Wells



- Wells built after 12/6/22
- Rule applies directly to new wells
- Requires wells to be monitored and controlled until plugged (***closure plan... which is fairly onerous***)
- “Outlaws” orphaning going forward (i.e. closure plan requirements)
- Existing orphaned wells not implicated (because they are not new)



Existing Wells



- Wells built before 12/6/22
- States must develop equivalent requirements to EPA's through a SIP process
- EPA outlined specific well closure requirements in the model rule
- Model rule “outlaws” orphaning going forward (i.e. closure plan requirements)
- Existing orphaned and idle wells implicated??? Not clearly stated that they are.



Applicability & Definitions

- The rule applies to “**designated facilities**” - “any existing facility which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an **affected facility**.” See 40 CFR 60.21a(b).
- “**Affected facility**” - “each existing well that **produces associated gas** which commenced construction before December 6, 2022.”
- “**Associated gas**” - the “natural gas from well operated primarily for oil production that is released from the liquid hydrocarbon during the initial state of separation after the wellhead. Associated gas product begins at the startup of production after the flow back period ends. Gas from wildcat or delineation wells is not associated gas.”

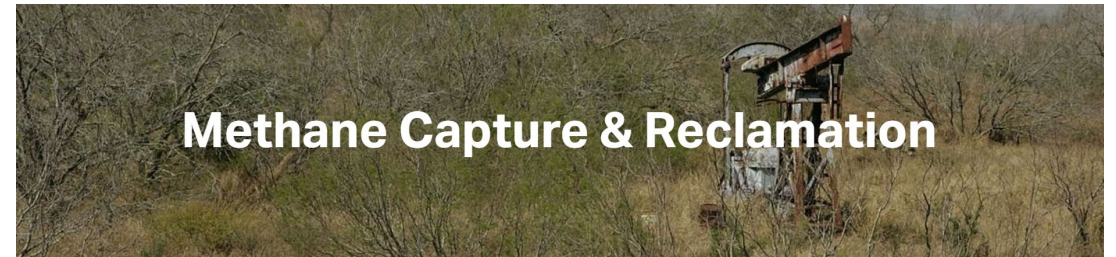


Requirements for Methane Carbon Credits

- Not otherwise required by law
- Orphan wells not covered by EPA proposed regulation
- Idle wells not covered by EPA proposed regulation
- Credits issued by BCarbon under publicly vetted protocol <https://bcarbon.org/methane>

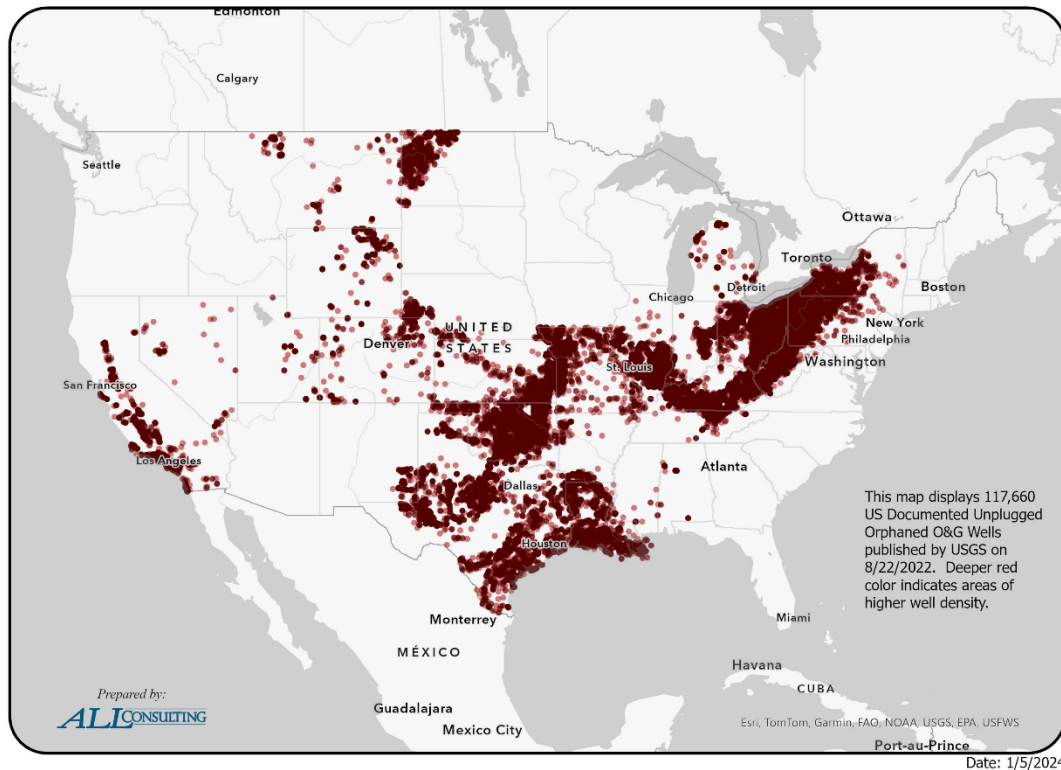


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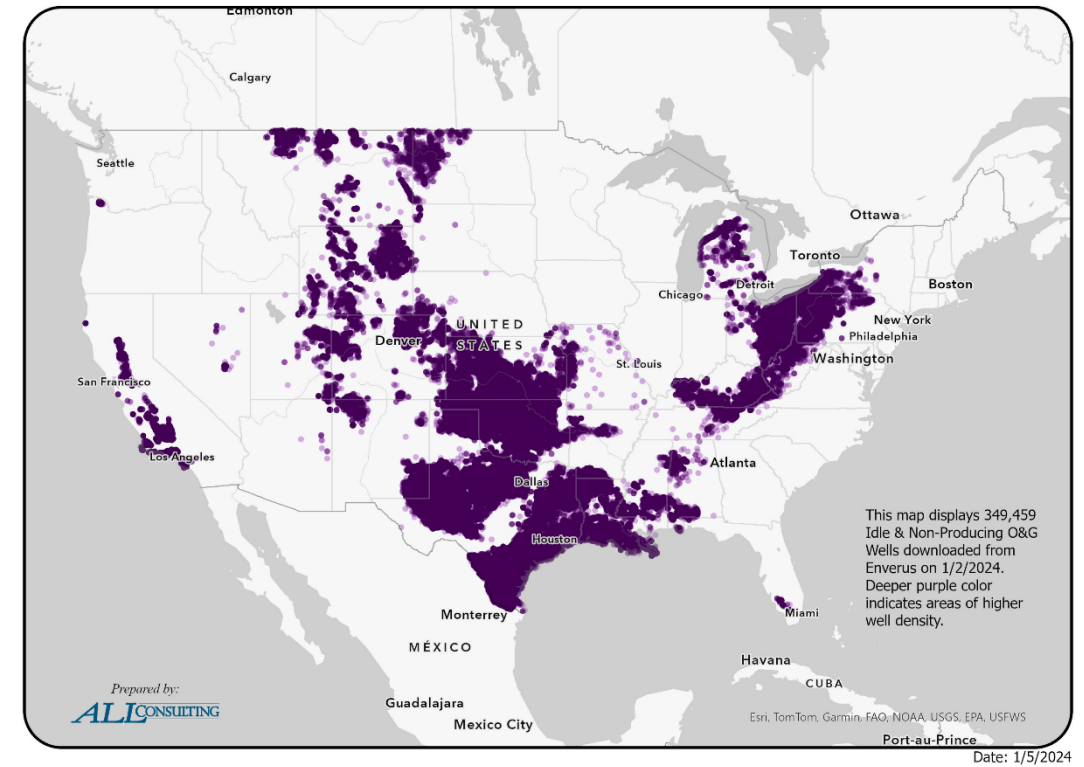


Over 3.5 Million Idle & Documented Orphan Wells in the United States

USGS Documented Unplugged Orphaned O&G Wells



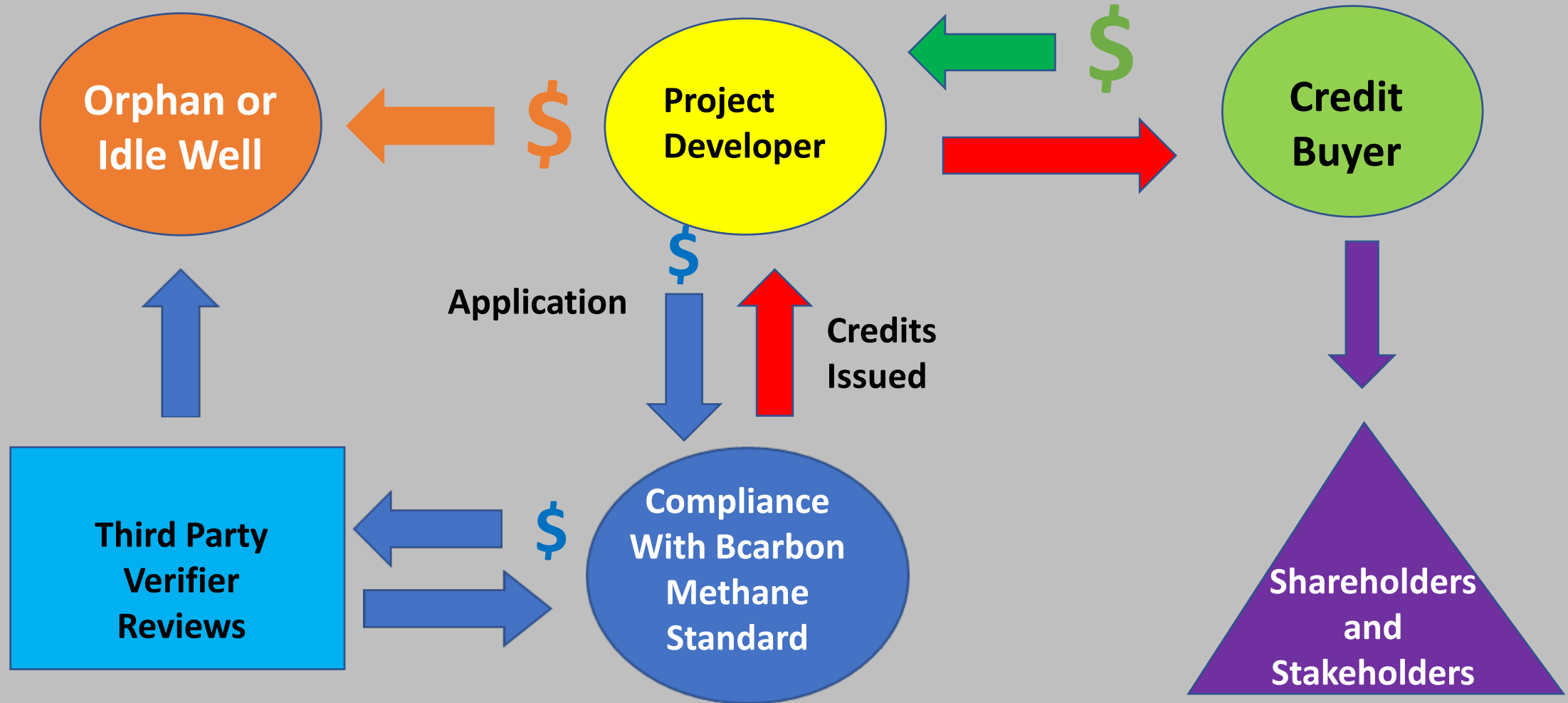
Idle/Non-Producing O&G Wells



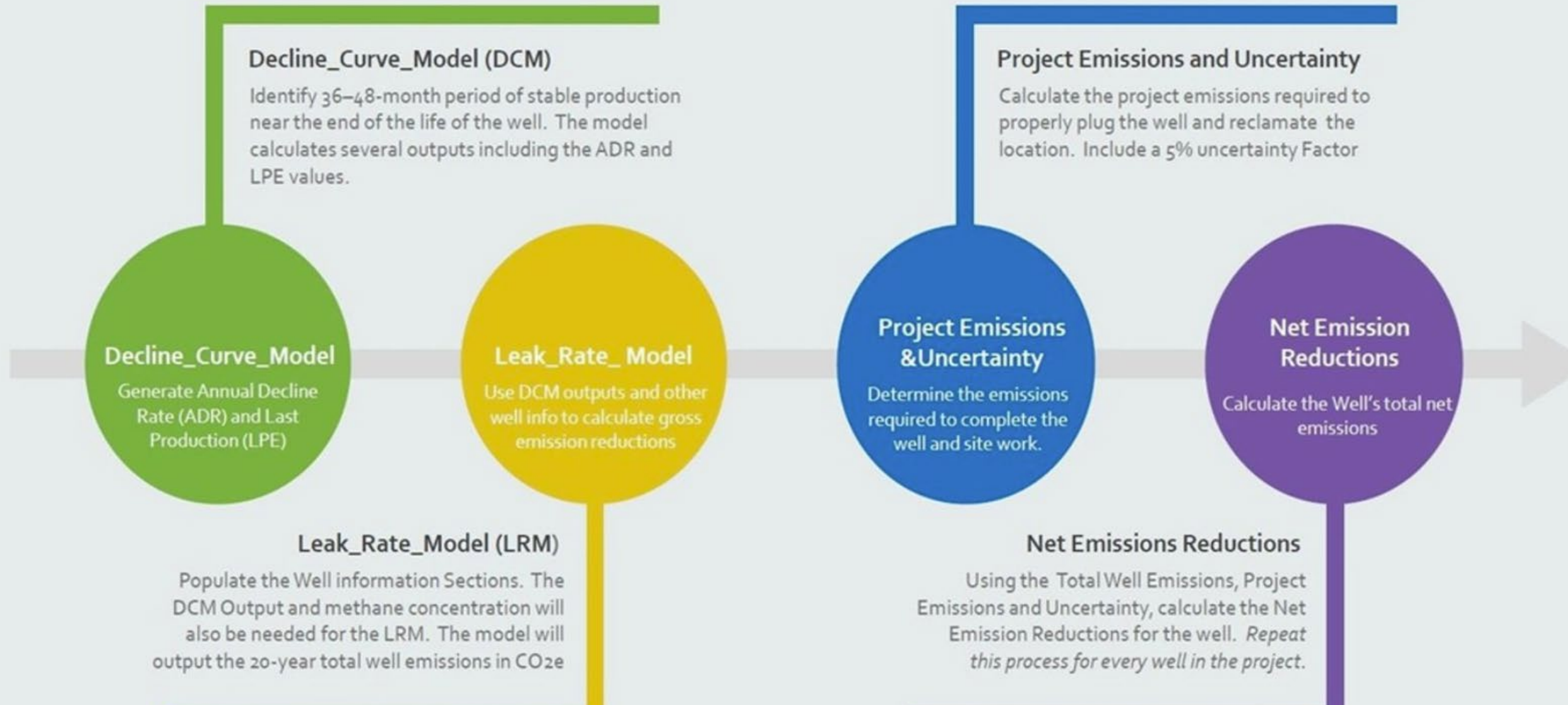
A Carbon Tracker report shows the cost to safely shut down low-producing wells is \$3bn more than what they earn



The World of Carbon Credit Transactions



Methane Calculation Process For BCarbon Methane Protocol – By ALL Consulting



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Questions or Comments:
terp@tceq.texas.gov

Texas Emissions Reduction Plan

TERP works hard to cut NO_x emissions that affect the air of our great state. By upgrading your vehicles and equipment and discarding the older models, you are helping to sustain Texas for the years ahead.

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Potential SIP Approach for Orphan and Idle Wells

- Seeks to encourage immediate private action to plug orphan and idle wells that are leaking methane
- Allows private capital to be used to plug orphaned and idle wells
- Allows carbon dioxide emission reduction credits to be issued by carbon credit registries that are registered with the state
- Identifies that TCEQ/TRRC do not consider orphaned and idle wells to be covered by the proposed EPA methane regulations due to definition of “associated gas”
- Therefore, all such well-plugging and credit issuance would be “additional” as TCEQ and TRRC interpret that term



**Creativity
Is The Key To
The Future**

Thank You!

