

# Ag-Carbon Economics

Advanced Crop Advisors Conference

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David Ripplinger

# Elections Matter

# Why agriculture?

It's the single best way to decarbonize it today.

Cost

Scale

Validity

Permanence



# Carbon contracts (offsets)

Offers of cash payment to adopt new practices.

stripe



## Who's buying?

**Multinational corporations** interested in reducing their GHG emissions and are willing to pay others to reduce their emissions, if they can take credit or **offset** their own.



# Carbon offsets

reduction of GHGs made by a business not in one's supply chain purchased by the business to **offset** its own emissions

Typically only available to new or recent adopters  
**(Additionality)**



# What's the product? What are corporations really buying?

One metric ton of carbon dioxide (1 mt CO<sub>2</sub>)

reduced,  
avoided, or  
captured and stored



carbon dioxide

# Why are corporations buying/paying?

- Current or expected regulatory requirements
- Attract financing
- Risk management
- Marketing
- Shareholder and outside pressure

# How are farmers paid?

Contract with middle man

For practice (no-till, cover crops) by the acre

Practices are mapped into GHG gas reductions

Process is approved by registry, allowing owner to make claims about benefits



# Ag carbon offset credit prices

Eight percent of corn and soybean farmers surveyed had been in discussions about carbon credits.

Only two percent reported entering into agreements.

About half of farmers were offered \$10 to \$30 per metric ton.



- February 2024

Most farmers only consider the costs and benefits of the new practice, ignoring the value of the carbon.

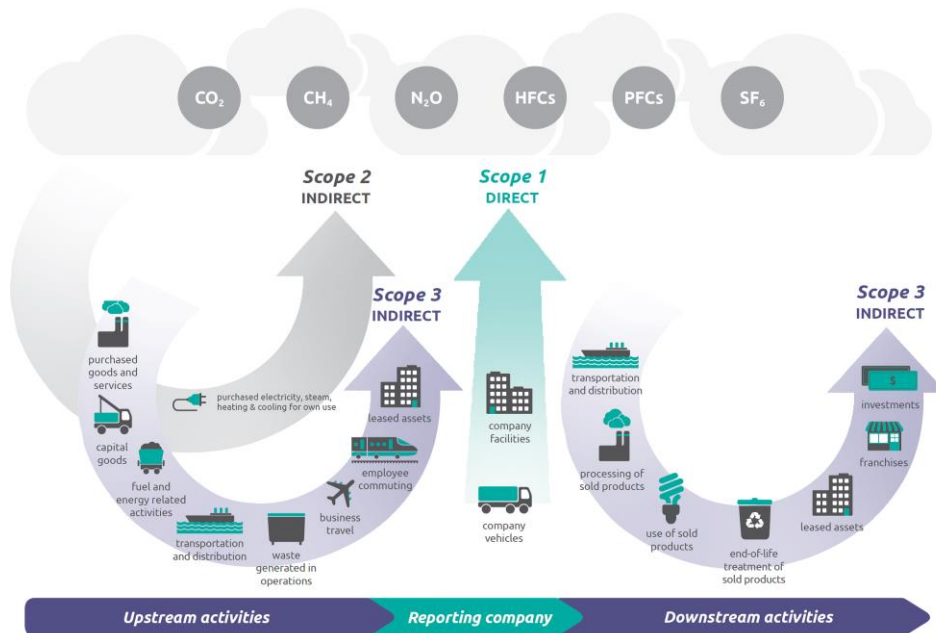
# Carbon Offset Market Updates

NORI shutdown

Ecosystem Market Services Consortium – only does insets/scope 3

Truterra collaborating with Indigo Ag

# Corporate emissions/Scope 3



Corporate greenhouse gas accounting standards continue to be developed.

- The standards require documenting emissions from the business, from energy that they buy, **and from up and down their supply chain (scope 3).**

# Carbon insets

reduction in emissions by a business in one's supply chain (*Scope 3*)

don't require changes

various ways to have a relatively small carbon footprint





re:generations™

- **Farming practices** – cover crops, nutrient management, tillage, etc.
- **Commodities** – corn, soybeans, wheat, canola, and peanuts.
- **Greenhouse gas reduction** – reduced emissions AND removals via sequestration and abatement.

ISCC Emissions Scoring      \$0.02-\$0.04/bu corn,  
\$0.05-\$0.07/bu soybeans  
delivered

Beat local benchmark for greenhouse gas emissions on field level basis. Sign a self-declaration document. Premium paid bi-annually

**(funded by USDA's Climate Smart Agriculture Public Private Partnerships program)**

NDSU

EXTENSION AGRIBUSINESS



Goals: 30% reduction in emissions by 2030

Net Zero by 2050

Motivation: Access to capital

Customer demands

How: Renewable energy

Sustainable cattle production practices

# THE WALL STREET JOURNAL.

SUSTAINABLE BUSINESS

## Tyson Foods Sued for Greenwashing

Environmentalists say the meat company's 'net-zero by 2050' claims don't hold water

*By H. Claire Brown*

Updated Sept. 18, 2024 2:34 pm ET | **WSJ PRO**

<https://www.wsj.com/articles/tyson-foods-sued-for-greenwashing-f7290058>



# Accessing value with biorefineries

Biofuels have unique access to markets, tax credits that value crops with relatively small carbon footprints, eg

California's Low Carbon Fuel Standard

Canada's Clean Fuel Standard

45Z Clean Fuel Production Tax Credit

# Climate disclosure laws

Require businesses to report climate risks and greenhouse gas emissions



The Securities Exchange Commissions (SEC) is working on rules that will require all publicly traded businesses to report ESG activities.

Has recently pulled back on proposed language for scope 3 emissions.

**The New York Times**

# **S.E.C. Moves to Kill Climate Disclosure Rule**

Published Feb. 11, 2025   Updated Feb. 12, 2025, 6:31 a.m. ET

# It really doesn't matter

The European Union has climate disclosure laws in force.

Increasing number of businesses will be regulated in coming years.

Many US companies do business in Europe and will have to report.

The SEC requires that all company reporting is accurate.





## **Newsom declares intention to sign landmark climate disclosure bill**

Will require businesses with more than \$1 billion in sales that do business in California to report their GHG emissions – including scope 3.

# Climate Smart Agriculture

**\$3.1 Billion** for Climate Smart Commodity Partnerships.

The Inflation Reduction Act included **\$20 billion** for climate smart agriculture. Increased funding for practices administered by USDA/NRCS.



# 45Z Clean Fuels Tax Credit

Tax credit for the production of clean (low-carbon) fuels.

The tax credit provides an incremental incentive for reductions in the fuel's carbon footprint.

Expected to account for farm-level emissions.



# 45Z Clean Fuels Tax Credit

The Biden administration/IRS issued 'Guidance' in mid-January



Future is uncertain with new administration.



# Stacking

Farmers can access various state, federal, and private sector incentives for the same field.

Not obvious which combinations will work best.



# Canada's Clean Fuel Regulations

Canada's Clean Fuel Regulations were enacted to reduce the emissions associated with transportation fuel in Canada.

Canada is a major destination for North Dakota produced ethanol.

A custom carbon intensity (CI) calculator for crops.

Biorefineries will be able to update their pathway and account for different crop production practices – (California's LCFS does not allow this)

## Canadian Carbon Tax

There are federal and provincial taxes on carbon emissions – including natural gas which is used for grain drying.

Receipts like those on the right are common.

A carbon tax has been discussed as part of the recent \$3.5 trillion infrastructure bill.

|   | Factor                    | Multiplier                 | Usage in m <sup>3</sup> |         |
|---|---------------------------|----------------------------|-------------------------|---------|
| <b>GAS DELIVERY SERVICE (79889830006)</b> |                           |                            |                         |         |
| Basic Monthly Charge                      |                           | \$137.40 / Month           | 91.60                   |         |
| Delivery Charge                           | 16,152.444 M <sup>3</sup> | X \$0.0684 /M <sup>3</sup> | 1104.83                 |         |
| Federal GST R119429751                    |                           | 5% X \$1,196.43            | 59.82                   |         |
|   |                           |                            | 1256.25                 | 1256.25 |
| <b>GAS SUPPLY COST</b>                    |                           |                            |                         |         |
| Gas Supplied by SaskEnergy                |                           |                            |                         |         |
| Gas Consumption Charge                    | 16,152.444 M <sup>3</sup> | X \$0.0998 /M <sup>3</sup> | 1612.01                 |         |
| Federal GST R119429751                    |                           | 5% X \$1,612.01            | 80.60                   |         |
|   |                           |                            | 1692.61                 | 1692.61 |
| <b>FEDERAL CARBON TAX</b>                 |                           |                            |                         |         |
| Federal Carbon Charge                     | 16,152.444 M <sup>3</sup> | X \$0.0391 /M <sup>3</sup> | 631.56                  |         |
| Federal GST R119429751                    |                           | 5% X \$631.56              | 31.58                   |         |
|   |                           |                            | 663.14                  | 663.14  |

# Summary/ Advice for Crop Consultants

This 'carbon thing' is real and will become increasingly important to agriculture and your work.

This is a today topic – if/when 45Z rules are finalized.

Crop consultants are probably the most important individuals in all of this.

# Summary/ Advice for Crop Consultants

Need to decide what level of expertise you want to develop, who to work with.

Need to stay up-to-date.

[Offsets, start with the economics of practices]

Insets – understand generally the carbon impacts of new practices

Let me know if you have questions/ education needs.

# Questions?

David Ripplinger

701.231.5265

david.ripplinger@ndsu.edu