



## Nutrien Sustainability Strategy





Lead next
wave of innovation
& sustainability
in agriculture

Help farmers adopt new technologies and agronomy practices that can feed a growing world, with a focus on soil health and environmental sustainability.



Protect the planet and minimize our environmental footprint

Reduce Nutrien's footprint through climate action and continuous improvement of our environmental performance



Champion diversity and inclusive growth in the agriculture industry

Increase belonging and decrease inequalities across our company, value chain and communities







SUSTAINABLE GALS



"Our integrated sustainability strategy is addressing our most material ESG risks and providing solutions for a growing world."

Nutrien President and CEO, Chuck Magro

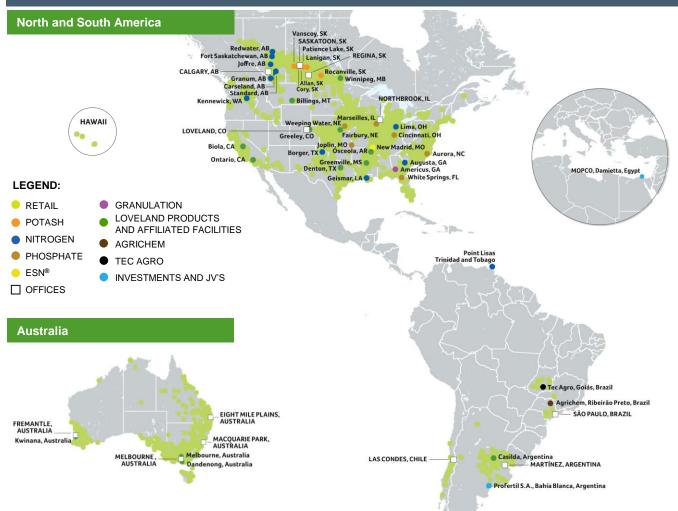


Foundations for Sustainability Bring our Purpose to life and grow our company from strong foundations. Fundamental systems include governance, stakeholder engagement, ethics and human rights, responsible supply chain, and safety.

### Leading Global Integrated Ag Solutions Provider



Nutrien has a unique global footprint and well positioned assets to **supply low carbon ammonia today** 



### >7M MmT

**Ammonia Production Capacity** 

### Up to 1MmT

Low Carbon Ammonia Production Capacity

### 200 kMT

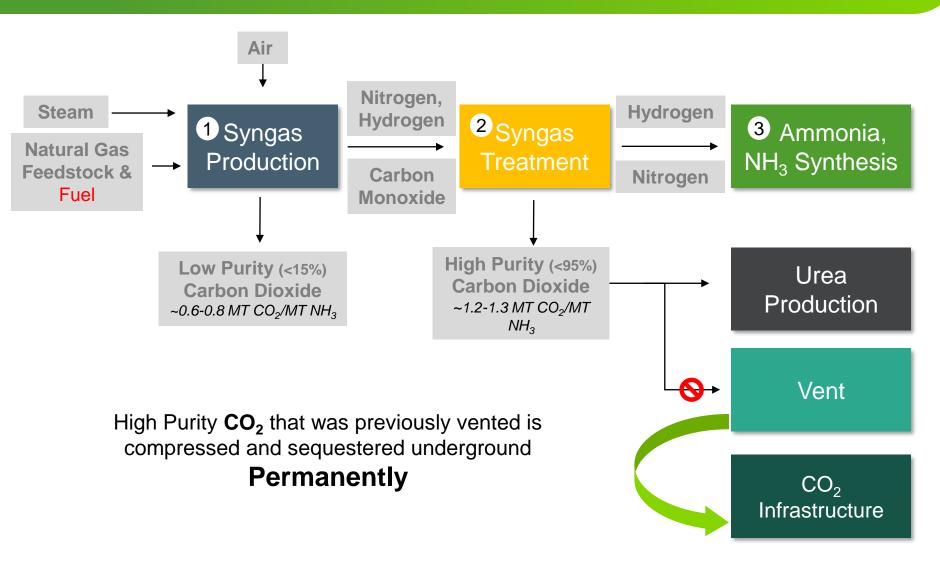
Low Carbon Ammonia With Tidewater Access at Geismar, LA

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Fleet of Ammonia Vessels

# Low Carbon Ammonia Production at Nutrien via Carbon Capture and Sequestration (CCS)

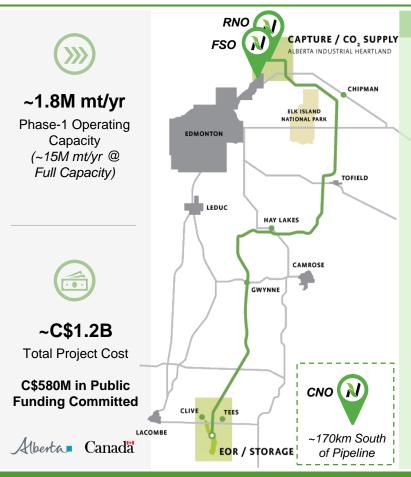




# Nutrien's Alberta Low Carbon Ammonia – Uniquely Positioned to Leverage New CO<sub>2</sub> Infrastructure



The Alberta Carbon Trunk Line ("ACTL") is a 240km pipeline designed to transport CO<sub>2</sub> for Enhanced Oil Recovery ("EOR") and/or future Permanent Sequestration Operations



#### **Nutrien**

(Initial Partner)

Contracted Source of CO<sub>2</sub>



Owner & operator of pipeline and compression infrastructure



#### enhance

(Partner)

Owner & operator of EOR
/ sequestration
infrastructure and
purchaser of CO<sub>2</sub>

Operational @ Redwater since Dec 2019

Up to 295k mt/yr CO<sub>2</sub>
Up to 245k mt/yr Low Carbon Ammonia

+)

Process CO<sub>2</sub> (Alberta Footprint)

~340k mt/yr

Potentially limited by volumes reserved for future urea expansion / debottlenecking

(+)

Combustion CO<sub>2</sub> (Alberta Footprint)

~1.3M mt/yr

Operational feasibility & recovery rates under review and potentially highly variable

Up to 1.9M mt CO<sub>2</sub>/year

Total Targeted Emissions

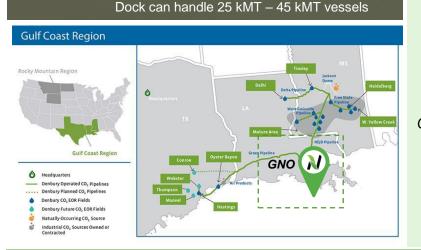
Further utilization of the ACTL as a viable emissions mitigation is under evaluation

# Geismar, LA Low Carbon Ammonia – Uniquely Positioned to Export Low Carbon Ammonia



The 925 mile Denbury CO<sub>2</sub> Pipeline network is designed to transport CO<sub>2</sub> for Enhanced Oil Recovery ("EOR") and/or future Permanent Sequestration Operations enabled by 45Q Tax Credit





#### Nutrien

Contracted Source of CO<sub>2</sub>

### **Denbury**

(Partner)

Owner & operator of EOR
/ sequestration
infrastructure and
purchaser of CO<sub>2</sub>

Operational @ Geismar since 2013

> 250k mt/yr CO<sub>2</sub> >200k mt/yr Low Carbon Ammonia

+ Process CO<sub>2</sub> (Additional opportunities)

~90k mt/yr CO<sub>2</sub> ~75k mt/yr Low Carbon Ammonia

Potentially limited by volumes reserved for future urea expansion / debottlenecking

+ Combustion CO<sub>2</sub>

>300 kmt/yr

Operational feasibility & recovery rates under review and potentially highly variable

> 600 kmt CO<sub>2</sub>/year

Total Targeted Emissions

Further utilization of the Denbury Network as a viable emissions mitigation is under evaluation

## Joffre, AB Low Carbon Ammonia – Utilizing By-Product Hydrogen to make Low Carbon Ammonia



By-Product Hydrogen and Nitrogen are Supplied from adjacent facilities



NH<sub>3</sub> Producer

NOVA Chemicals

(H<sub>2</sub> Supply)

490k mt/yr
Low Carbon Ammonia Capacity

Lifetime Production >12 Mmt

Hydrogen
Ammonia,
NH<sub>3</sub> Synthesis

(N<sub>2</sub> Supply)

Making our planet more productive™

Further expansion of Joffre possible with additional green energy or green hydrogen supply

- Fair evaluation of life-cycle carbon emissions for all pathways based on sound science
- Transparent process with adequate checks/balances to ensure international credibility
- Balance of ease of execution/complexity for both producers and consumers
- Support for early adopters (i.e. Hybrid Electrolysis/CCS facilities)
- Alignment with parallel hydrogen certification efforts



## **Thank You!**

For further information, visit: www.nutrien.com

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- in linkedin.com/company/nutrien
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