The Florida Senate COMMITTEE MEETING EXPANDED AGENDA

AGRICULTURE Senator Collins, Chair Senator Boyd, Vice Chair

MEETING DATE: Tuesday, November 7, 2023

TIME: 1:30—3:15 p.m.

PLACE: 301 Senate Building

MEMBERS: Senator Collins, Chair; Senator Boyd, Vice Chair; Senators Baxley, Berman, Rouson, and Simon

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Commissioner Wilton Simpson, Florida	Department of Agriculture and Consumer Services	Presented
2	Mike Joyner, President, Florida Fruit ar	Presented	
3	Presentation by Brightmark and Larson Dairy Farms on Renewable Natural Gas Project		Presented
	Other Related Meeting Documents		

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While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022 Joint Rules.pdf (flsenate.gov)

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S-001 (08/10/2021)



Impacts of Unfair Trade on Florida F&V Growers

November 7, 2023

Mike Joyner, Florida Fruit & Vegetable Association





Florida Fruits & Vegetables

- First in the nation in value of production bell peppers, oranges, squash, snap beans, cucumbers, sugarcane, fresh market tomatoes and watermelons
- Second in nation in value of production avocados, cabbage, tangerines and strawberries
- > Third in nation in value of production grapefruit and sweet corn
- > Essential in feeding America fresh, healthy produce from November late spring

Source: UF/IFAS Florida's Agriculture and Food Systems Fast Facts 2022



Impacts of the North American Free Trade FFVA **Agreement (NAFTA)**

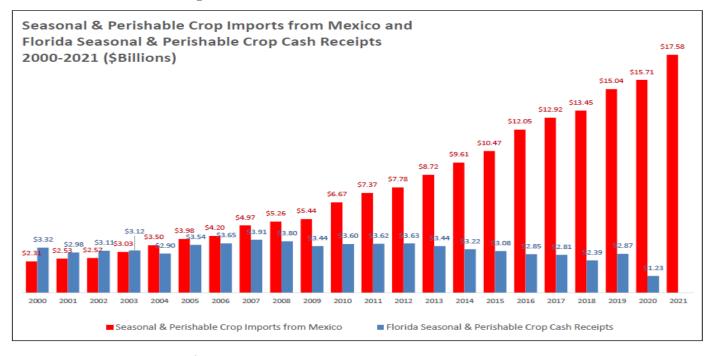
Impacts

- > 1993 NAFTA signed into law. Took effect Jan. 1, 1994.
- > 1999 Five years after signing NAFTA, Florida specialty crop production value was 44% higher than the value of specialty crop imports from Mexico.
- > 2014 Ten years after signing NAFTA, the value of specialty crop imports from Mexico was 198% higher than the value of production for Florida specialty crops.
- > 2001 2021 596% increase in value of Mexican Seasonal & Perishable imports (\$2.5 - \$17.58Bn)
- \triangleright 46% Average growth per year over the last 5 years (\$12.05 17.58Bn).

Source: Florida Department of Agriculture and Consumer Services – Mexico's Ag-Export Impacts on Florida Agriculture 8/1/22

Impacts of NAFTA



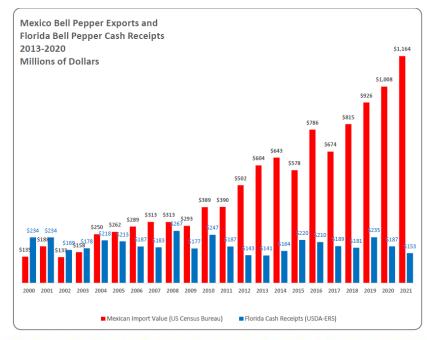




Impacts of NAFTA - Bell Peppers



- ➤520% Expansion of the value of Mexican product from 2001 to 2021
- >\$895Mn Mexican average value exported from 2019-2021
- ►73.47% Loss of Florida Market Share in the U.S. between 2001 and 2021
- >\$189Mn Florida average production value from 2017-2021

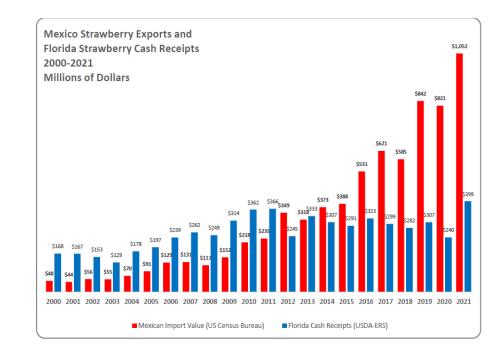




Impacts of NAFTA – Strawberries



- > 2,308% Expansion of the value of Mexican product from 2001 to 2021
- >\$741 million Mexican average value exported from 2016-2021
- ➤31.65% Loss of Florida Market Share in the U.S. between 2001 and 2021
- >\$308 million Florida average production value from 2016-2021

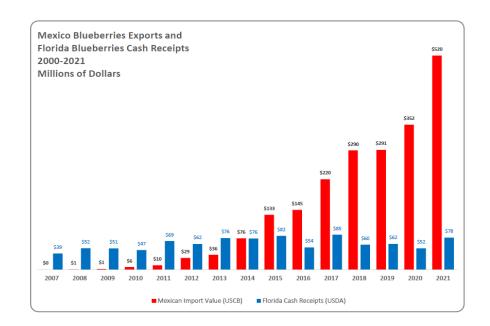






Impacts of NAFTA - Blueberries

- ➤ 583% Expansion of the value of Mexican product from 2014 to 2021
- >\$253 million Mexican average value exported from 2014-2021
- ➤67.97% Loss of Florida Market Share in the U.S. between 2011 and 2021
- >\$68.5 million Florida average production value from 2014-2021

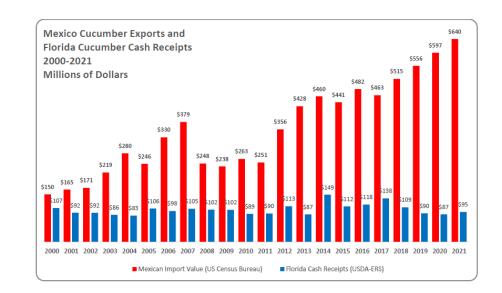






Impacts of NAFTA – Cucumbers

- ➤ 287% Expansion of the value of Mexican product from 2001 to 2021
- ➤\$542 million Mexican average value exported from 2016-2021
- >71.94% Loss of Florida Market Share in the U.S. between 2001 and 2021
- >\$106.2 million Florida average production value from 2016-2021

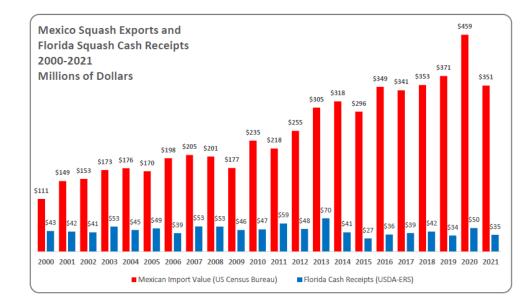






Impacts of NAFTA - Squash

- ➤ 135% Expansion of the value of Mexican product from 2001 to 2021
- ➤\$371 million Mexican average value exported from 2016-2021
- ➤59.33% Loss of Florida Market Share in the U.S. between 2001 and 2021
- >\$39.2 million Florida average production value from 2016-2021







How did we get here?

Mexico's Unfair Trade Practices

Significant government subsidies for infrastructure, equipment, genetics, irrigation technology and more.

"As of 2018, there were about 126,000 acres of protected agriculture in that country. That's a big jump from the 325 acres planted in 2003." Source: The Packer, Tom Burfield, September 17, 2019

- Prices well below the cost of production
- Low labor wages



FFVA)

Status of Seasonality Discussions

- ➤ U.S. Mexico Canada Agreement (USMCA)
- ➤ Antidumping and Countervailing Duties (AD/CVD)
- ➤ Defending Domestic Production Act (DDPA)
- Florida's Congressional Delegation
- ➤ Section 301 US Trade Representative (USTR) can 1) impose restrictions 2) withdraw or suspend an agreement 3) enter into a binding agreement
- ➤ Seasonal and Perishable Agricultural Products Advisory Committee US Trade Representative/US Department of Agriculture
- > Florida Legislature



Conclusion



- Florida's fresh produce industry is in deep crisis.
- Soaring volumes of unfairly priced produce imported from foreign countries continue to devastate our growers, and others across the country.
- Immediate, effective and enforceable solutions are needed now to restore market fairness for U.S. producers of fresh fruits and vegetables.



The Florida Senate

11/7/2023 APPEARANCE RECORD

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Bill Number or Topic

Agriculture	

Meeting Date

Committee

Deliver both copies of this form to Senate professional staff conducting the meeting

Amendment Barcode (if applicable)

Name

Mike Joyner

Phone

8502103083

Address 800 Trafalgar Court

Mike.Joyner@FFVA.com

Street

City

Maitland

FL

State

32751

Zip

Reset Form

For Against Information

OR

Waive Speaking:

In Support

PLEASE CHECK ONE OF THE FOLLOWING:

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I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

Florida Fruit & Vegetable Assn.

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S-001 (08/10/2021)





Renewable natural gas (RNG)

Approximately 60% of total global methane emissions come from anthropogenic sources. Of these, about 40% come from agriculture, including manure management.

-UN ENVIRONMENT PROGRAMME

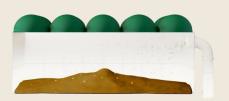
Source: UN Environment Programme, "Global methane assessment: Benefits and costs of mitigating methane emissions, " 2021. Pg. 28





1. DIVERT

Manure waste is collected on farms, food processing facilities, and delivered from waste management companies.



2. DIGEST

The waste is deposited into a digester that extracts and captures methane gas from within.

RNG production Process overview



3. DISTRIBUTE

We separate, clean, and compress the methane into renewable natural gas that is used as transportation fuel or by local residents for heating and power.

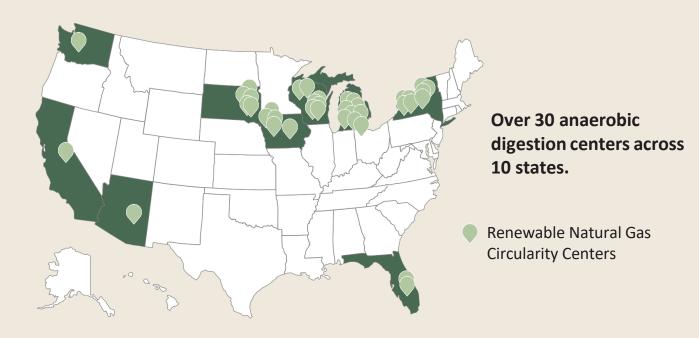


4. RE-USE

The remaining solids are turned into organic fertilizer or compost. Recaptured water is used for land application or treated at a local wastewater plant.

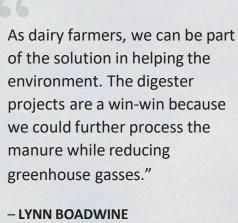


Anaerobic Digestion Circularity Centers



+ These projects have reduced over 700,000 metric tons of CO₂eq. This is equivalent to carbon sequestered by more than 834,000 acres of forests annually.*

*EPA Greenhouse Gas Equivalencies Calculator



- LYNN BOADWINE

Owner Boadwine Dairy, Inc

South Dakota



The Larson Project

This fourth-generation family dairy farm is operating anaerobic digesters that collect and clean methane from cow manure and deliver it back into the local interstate gas pipeline as energy to be used by homes and businesses.



Okeechobee County, Florida



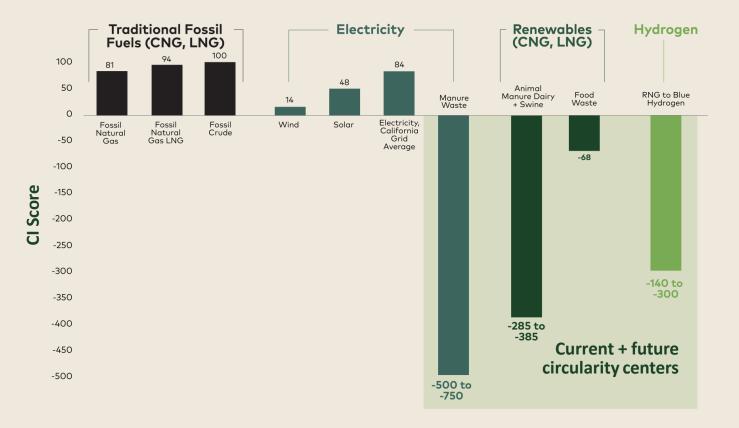


KEY OUTPUTS	The digesters are anticipated to generate 171,000 mmBTU of renewable natural gas each year which is equivalent to powering 1,185 homes.
ENVIRONMENTAL IMPACT	This project will reduce over 57,000 tons of CO2 each year which is equivalent to planting over 75,000 acres of forest every year.
LOCAL	Throughout the construction process, this project will provide approximately 120 temporary jobs and 3 full-time jobs once the project is complete.
	The excess fertilizer that is created throughout the process is then transferred back to the farm.



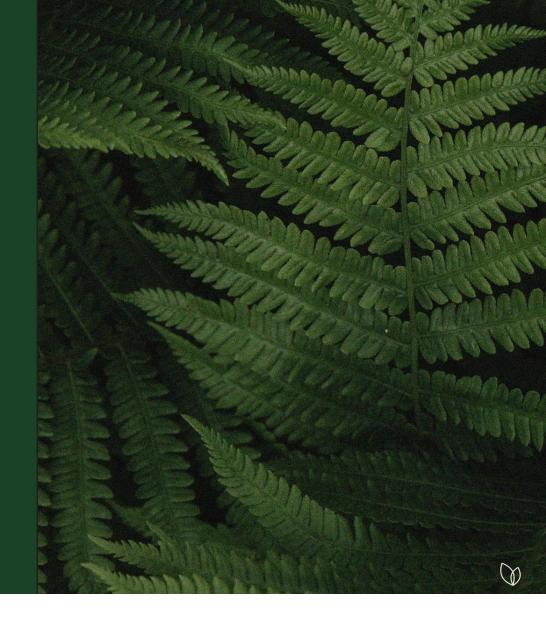


RNG has a negative carbon intensity Renewable natural gas from dairy manure and organic waste have a negative carbon intensity compared to other forms of energy.





Power in partnerships



Curriculum with the Guy Harvey Ocean Foundation

Combining expertise on recycling & ocean conservation

Curriculum for high school and elementary school students educating them about plastic pollution and its impact on our oceans.

Foster education

We have created a free unit that reaches students and aims to educate future generations on the impact of post-use plastic on the environment.

Our reach

To date we have reached over 38,000 students with a goal to reach 30,000 students this school year.









Tackling an ocean-sized plastic waste problem with NOAA

A new recycling program

First-of-its-kind plastics renewal program recycle buoys and downlines that usually end up in landfills.

Creating circular solutions

This hard-to-recycle marine waste will be turned into new plastics products.

mis initiative elevates our commitment to protect the environment. I'm proud that buoy team member Benjamin D'Avanzo recognized the need for a sustainable alternative to our plastics waste and pursued this partnership with Brightmark.

-SARAH FANGMAN

Florida Keys National Marine Sanctuary Superintendent











Thank you





BRIGHTMARK.COM @brightmark











FL Dairy Farms Renewable Natural Gas (RNG) Development Opportunities, Challenges & Possible Solutions

FL Senate Agriculture Committee Briefing

NOVEMBER 7, 2023

Who is United Dairy Farmers of Florida (UDFF)?



UDFF is a coalition of family-owned farms that is **committed to producing safe**, **high-quality dairy products for consumers** to enjoy while advancing environmentally sustainable practices that protect our natural resources

Managed by 6-member dairy farmer Board:

- Jacob Larson-President (Larson Dairies-Okeechobee)
- Douglas Walker- VP (Walker & Sons Dairies-Jefferson)
- Jan Henderson- Tres./Sec. (Alliance Dairies-Gilchrist/Levy)
- Ben Butler (Butler Oaks Farm-Highlands)
- Greg Watts (Full Circle Dairy-Madison)
- Dave Temple (Southern Cross Dairy-Suwannee)

Board members bolded have RNG projects

One employee, Ray Hodge, Executive Director, and office is based in Suwannee County



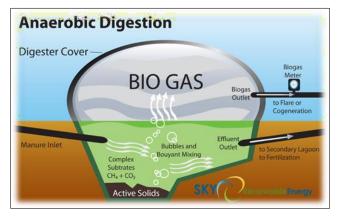
Hurricane Idalia Impact & Recovery Update

- 22 dairy farms in North FL impacted with more than \$8.0 million impact.
- Significant damage to farm buildings, irrigation, crops, equipment, and employee housing.
- Loss revenue from milk because of stress of the event which will last for months.
- Federal help is minimal and slow to come IF at all.
- Thank you to the Florida Legislature for including farmer recovery help during the Special Session! All farmers in the region say THANK YOU!



Dairy RNG: Digester 101







- Biological processes in which microorganisms break down biodegradable material (manure, food waste, municipal solids, etc.) in the absence of oxygen creates and captures methane and CO2 as a by product
- More expensive to build
- Greater gas capture/ production
- Half of the current dairy farm RNG projects are this type



- Less expensive to build
- Less gas capture/ production
- Larson Dairies RNG is example of this type of digester

Dairy RNG: Benefits to Farmers, Communities & State





- Farm: Opportunity for much needed non milk revenue for farms. Paid by providing "feedstock" (manure) to capture energy. Payment based on per cow, RNG output or a combo. Usually paid on an annual basis.
- Farm: Possible lease payment on farmer land used for the system.
- Community: Jobs for fiscally constrained/rural counties.



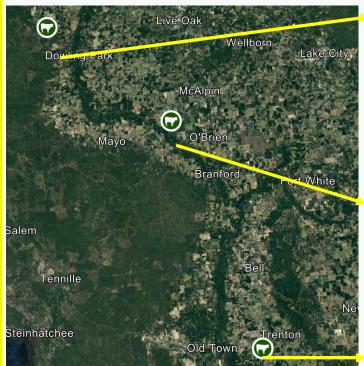
- Digesters allow for water reuse and more effective nutrient availability to crops.
- Process can eliminate a portion of the manure solids.
- Provides for more effective manure utilization/export as an organic fertilizer.
- Odor removal of manure to allow for more uses and reduced neighbor complaints.
- Capturing methane gas improves air quality.



- Improves farm resiliency through using RNG/NG powered back up systems during hurricanes.
- Helps diversify State's Renewable Energy portfolio.
- Provides opportunities for companies in the dairy supply chain to use RNG/NG in trucking dairy products.
- Diverts feedstocks that would otherwise go to the landfills to be recycled/utilized.
- Greater export of nutrients off farms providing expansion potential for dairy farms.

Current RNG Projects on FL Dairies: NORTH





Full Circle Dairy Lee, Madison County

Under construction in partnership with Florida Public Utilities which is a subsidiary of Chesapeake Utilities. Check out the below link for a video on this project:



Southern Cross Dairy McAlpin, Suwannee County

Under construction in partnership with Avolta.
Updating the first digester in the state for RNG use and not electricity. **Why?**



Alliance Dairies

Trenton, Gilchrist County

Completed in partnership with TECO/Peoples Gas.
Updated the original digester for RNG and
not electricity creation and use. Check out the below
link for a video on this project:

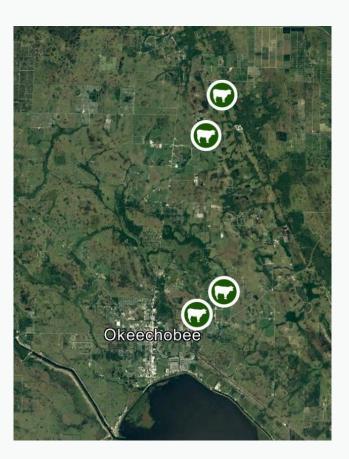
https://www.youtube.com/watch?v=YqX4OliwsOM



NOTE: NONE OF THESE PROJECTS ARE OWNED OR OPERATED BY FARMERS.

Current RNG Projects on FL Dairies: SOUTH





Larson Dairies

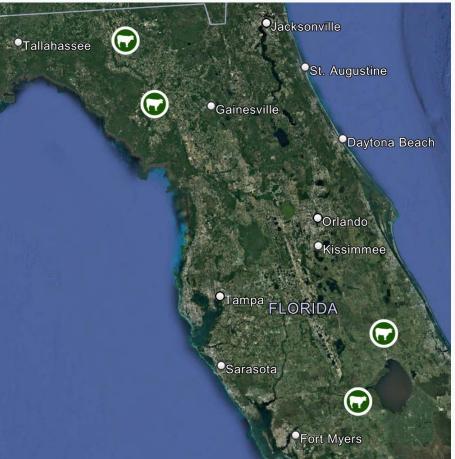
Okeechobee, Okeechobee County

Completed. New RNG systems at four of the Larson family farms in partnership with Brightmark. Below is the link to the video shown on this project: https://www.youtube.com/watch?v=aSrK3UT7nv8



NOTE: NONE OF THESE PROJECTS ARE OWNED OR OPERATED BY FARMERS.

RNG Project Potential on FL Dairies Tier 1: 3,000+ Cows



- **4 dairies** in this top tier.
- Current economic model typically means a dairy must have greater that 3K cows to produce enough RNG for project development. Thus, these dairies have the best chances for RNG development but a couple of them are on the bubble.

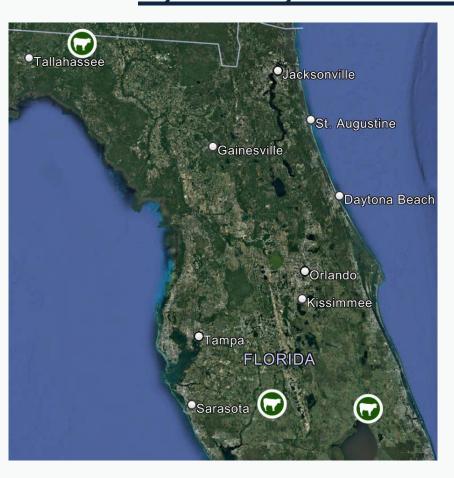
DAIRY FARMERS

All these farms have their cows in "free stall barns"
which is required for RNG. Below is an example of
such a "free stall barn" at a farm in Okeechobee that
Senator Grall and staff visited recently.



RNG Project Potential on FL Dairies Tier 2: 2,000-3,000 Cows





- 3 dairies in this tier. 1 of these dairies is not a "free stall barn" farm and thus unless they convert from pasture based, they won't be a candidate.
- Current economic model typically means these size of dairies don't produce enough RNG from dairy only to make projects viable.
- Thus, these farms would benefit from State policies to enhance RNG development.

RNG Project Potential on FL Dairies Tier 3: 1,000-2,000 Cows





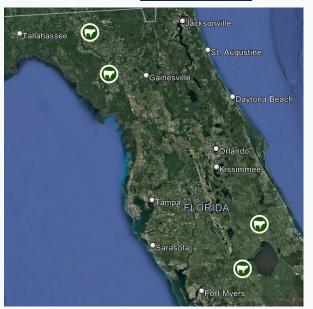
- This tier has the most dairies, 13 dairies.
 3 of these are not a "free stall barn" type farm and thus unless they convert, they won't be a candidate.
- This group of dairies is where we have the most growth potential for RNG but will take State policy support to make projects viable with Dairy or multiple feedstocks.
- Thus, these farms would benefit most from State policies to enhance RNG development.

RNG Project Potential on FL Dairies

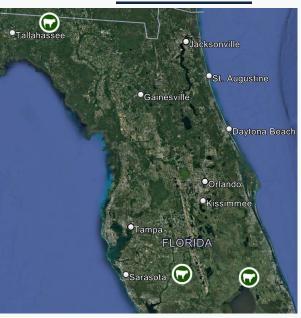
Summary



Tier 1: 3K+Cows



Tier 2: 2-3K+Cows



Tier 3: 1-2K+Cows



- 16 dairy farms in FL would benefit from State policies to enhance their chances for RNG development.
- Thus, efforts by the State/Feds should focus on these farms to try and overcome the barriers to RNG development and to expand these operations.

Challenges Keeping Some FL Dairy Farmers from Participating in RNG Development



- Herd Size: Many farms don't have enough cows to capture/create enough gas to justify the capital expenditure for project development.
- Location: Some farms might be too far away from a gas line, thus excluding them or raising the project costs.
- Farm/Animal Housing Infrastructure: Some of the farms don't have all their cows in free stall barns which is needed to enable RNG.
- Milk Market/Margins: Some of the farms could grow their herds but the tight margins are not encouraging increased production.
- **Uncertainty:** Many of the farm owners are not sure about dairy farming future and thus, might not be able to commit to a contract term needed from the project developer.
- Revenue from RNG: The level of revenue to the farmer from a project might not be enough to justify the commitment to a project.
- Cost of RNG Construction: Because of the operation systems FL dairies operate under it can make the construction costs much higher for project development compared to other regions of the country.





Ideas to Overcome RNG Development Challenges: Regional "Multiple Feedstock" RNG Projects Lafayette



- The idea is to use multiple feedstocks in the region as shown to feed into a regional digester in addition to dairy manure.
- Poultry Feedstock: The litter can be a feedstock.
- Municipal/Domestic Wastewater Facilities Solids: The FL DOC facility and the City of Mayo could be a source of feedstock.

Ideas to Overcome RNG Development Challenges Regional "Multiple Feedstock" RNG Projects Okeechobee



- The idea is to use multiple feedstocks in the region as shown to feed into a regional digester in addition to dairy manure.
- Poultry/Egg Farm Feedstock: The litter can be a feedstock.
- Municipal/Domestic Wastewater Facilities
 Solids: The FL DOC facility and the City of
 Okeechobee could be a source of
 feedstock.
- Landfill: Most landfills are catching their gas for RNG and it is shown in case it plays a role in a regional project.
- Food Waste: There are some stand alone digesters being developed that use food waste. Could be an opportunity to add food waste to a regional system as well.

Additional Ideas to Overcome RNG Development Challenges

- UNITED DAIRY FARMERS OF Florida
- Financial Support of Digester Water Quality/Reuse Components
- Enhanced Farm Facility/Infrastructure Support
- State Policies for Expanding Milk Production
- Support for RNG Use in Dairy Supply Chain
- Tax Policy





FL Dairy Farms Renewable Natural Gas (RNG) Development Opportunities, Challenges & Possible Solutions: SUMMARY

- RNG on FL dairy farms can be an important part of the State's renewable energy supply.
- RNG on dairies is good for the farmer, rural communities and the environment.
- To expand RNG on more FL dairy farms it is going to take a comprehensive strategy from the State, and it needs to be farmer focused.
- UDFF places this effort as a top priority and is excited to work with the State and all the stakeholders on this effort.













FL Dairy Farms Renewable Natural Gas (RNG) Development Opportunities, Challenges & Possible Solutions

FL Senate Agriculture Committee Briefing

NOVEMBER 7, 2023

Q/A

Thank you for your time!

 Look forward to working with you in the future on this subject!

Contact Information for Ray Hodge: (



386-209-6997



ray@uniteddairyfarmersfl.com

The Florida Senate

11/7/2023 APPEARANC	E RECORD	
Meeting Date Deliver both copies Senate professional staff con	s of this form to Bill Number or Topic	
Committee	Amendment Barcode (if applicable)	
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S-001 (08/10/2021)

	The Florida Senate					
11/7/23	APPEARANCE REC	ORD _ ENG DAIRY				
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The Florida Senate

11/7/23 APPEARANCE RECORD

Renewable Natural Gas

Agric	Meeting Date ulture		eliver both copies of this form to ofessional staff conducting the mee	Bill Number or Topic neeting
Name	Committee Dale Calhoun		Phon	Amendment Barcode (if applicable) one
Address	201 S Monroe S	St Unit A	Emai	dale.calhoun@floridagas.org
	Tallahassee	FL	32301	
	Speaking: For	State Against Informa	Zip ation OR Waive Sp	Speaking:
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	n appearing without npensation or sponsorship.	repr	a registered lobbyist, esenting: a Natural Gas Associa	I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

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S-001 (08/10/2021)

CourtSmart Tag Report

Room: SB 301 Case No.: Type:

Caption: Senate Agriculture Committee Judge:

Started: 11/7/2023 1:30:22 PM

Ends: 11/7/2023 2:50:34 PM Length: 01:20:13

1:30:27 PM Chair Collins calls meeting to order

1:30:30 PM Roll call, quorum is present

1:30:43 PM Tab 1, Commissioner Wilton Simpson, Florida Department of Agriculture and Consumer Services

1:31:31 PM Commissioner Wilton Simpson

1:41:35 PM Questions: 1:41:42 PM Senator Simon

1:42:34 PM Commissioner Wilton Simpson

1:42:49 PM Senator Boyd 1:43:55 PM Senator Berman

1:44:38 PM Commissioner Wilton Simpson

1:45:10 PM Senator Berman 1:45:30 PM Chair Collins

1:46:16 PM Tab 2, Mike Joyner, Florida Fruit and Vegetable Association

1:46:27 PM Mike Joyner
2:04:29 PM Chair Collins
2:04:48 PM Questions:
2:04:51 PM Senator Baxley

2:07:21 PM Commissioner Wilton Simpson

2:07:36 PM Chair Collins 2:10:08 PM Senator Rouson

2:11:12 PM Commissioner Wilton Simpson

2:12:57 PM Tab 3, Presentation by Brightmark and Larson Dairy Farms on Renewable Natural Gas Project

2:13:10 PM Keyna Cory, Brightmark

2:19:45 PM Ray Hodge, United Dairy Farmers of FL

2:40:25 PM Dale Calhoun, Florida Natural Gas Association

2:42:53 PM Questions: 2:42:56 PM Senator Berman 2:43:10 PM Ray Hodge 2:43:23 PM Keyna Cory 2:43:51 PM Ray Hodge 2:44:04 PM Senator Berman 2:44:24 PM Ray Hodge 2:45:30 PM **Chair Collins**

2:46:17 PM Senator Boyd moves to adjourn

2:46:21 PM Meeting Adjourned