GEVO – JANUARY 2021 INVESTOR

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Dr. Patrick Gruber, CEO

FORWARD LOOKING STATEMENTS

Any statements in this presentation about our future expectations, plans, outlook and prospects, and other statements containing the words "believes," "anticipates," "plans," "estimates," "expects," "intends," "may" and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including risks relating to: our Net-Zero 1 project and other projects; the success of our sales and production efforts in support of the commercialization of our products; our growth plans and strategies, including the planned expansion of our facilities; our technologies; the sizes of markets for our products; the benefits and characteristics of our products, including CI score and reductions in greenhouse gas emissions; our ability to obtain and maintain certifications related to our products; our ability to enter into additional contracts to sell our products; the status of our contract discussions and negotiations; memoranda of understanding, discussions and negotiations relating to potential projects; our ability to raise funds to continue operations or fund growth projects; our projected revenues or sales; our ability to perform under current or future contracts; our ability to become profitable; our projections of internal rates of return on investments for our projects; and other factors discussed in the "Risk Factors" of our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2019 and in other filings that we periodically make with the SEC. In addition, the forward-looking statements included in this investor presentation represent our views as of the date of this investor presentation. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements, and as such we anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we specifically disclaim any obligation to do so. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this investor presentation





Renewable Energy Transformed into Energy-Dense Liquids

Drop-in gasoline, jet fuel, and other hydrocarbons with net-zero GHG emissions when burned



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BEEN THERE AND DONE IT—BUT GEVO COULD BE BIGGEST, MOST IMPACTFUL YET MORE THAN 120 YEARS OF DIRECTLY RELEVANT EXPERIENCE



Dr. Patrick Gruber Chief Executive Officer

- Chief Executive Officer and director of Gevo since 2007
- Prior to Gevo, served as President and Chief Executive Officer of Outlast Technologies, led the development and commercialization of PLA at Cargill and co-founded Cargill Dow LLC and NatureWorks where he served as VP -Technology & Operations, and Chief Technology Officer
- Has served on several boards and was awarded the University of Minnesota Outstanding Achievement Award in 2011 and the first George Washington Carver Award in 2008
- Bachelor of Science degrees in Chemistry and Biology from University of St. Thomas, MBA from University of Minnesota – Carlson School of Management and PHD in Chemistry from University of Minnesota



Dr. Chris Ryan Chief Technology Officer Chief Operating Officer

- President, Chief Technology Officer and Chief Operating Officer of Gevo since 2011, after serving as Executive Vice President, Business Development starting in 2009
- Prior to Gevo, was key developer for PLA and advanced lactic acid fermentation technology, having been a leader at Cargill Dow LLC, and then co-founded NatureWorks, where he served as Chief Operating Officer and Chief Technology Officer
- Over 30 years of experience in strategic leadership, business development and research & product development in bio-based materials
- Bachelor of Science degree in Chemistry from Gustavus Adolphus College, a Master's from U of MN Carlson School of Business and PHD in Chemistry from University of Minnesota



Lynn Smull Chief Financial Officer

- Chief Financial Officer of Gevo since December 2019
- Prior to Gevo, served as Chief Financial Officer of One Energy Enterprises, President of WElink Energy and Head of Foresight Group US
- Over 30 years of experience in capital raising, investing, lending, project finance, and M&A while working for firms such as Bechtel, Salomon Brothers, Bank of America, Calpine and Table Rock Capital
- Bachelor of Science degree in political science and finance from University of Illinois at Urbana-Champaign and MBA from The University of Chicago – Booth School of Business



Tim Cesarek Chief Commercial Officer

- Chief Commercial Officer of Gevo since March 2018
- Prior to Gevo, served as Senior Vice President, Global Business Development of Enerkem, Managing Director in the Organic Growth Group & Organic Recycling business at Waste Management and President of Koch Genesis Company
- Over 30 years of experience in business development and private equity with over 15 of those years in renewable fuels, chemicals and energy
- Bachelor of Science degree in Biomedical Engineering from Milwaukee School of Engineering and MBA from Pepperdine University – The George L. Graziadio School of Business & Management



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GREENHOUSE GASSES ARE INCREASING





GHG'S HAVE BEEN INCREASING SINCE THE ONSET OF THE INDUSTRIAL AGE

Global Carbon Emissions from Fossil Fuels, 1900-2014



Source: Boden, T.A., Marland, G., and Andres, R.J. (2017). <u>Global</u>, <u>Regional, and National Fossil-Fuel CO2Emissions</u>. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A. doi 10.3334/CDIAC/00001_V2017.



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ARE TEMPERATURES RISING?





SMOG AND AIR POLLUTION IS A PROBLEM, AND YES, FOSSIL FUELS CREATE IT

BUT ADVANCED RENEWABLE FUELS HAVE POTENTIAL TO ADDRESS THE PROBLEM—NO PARTICULATES, NO SULPHUR, NO NITROGEN





GAINING PERSPECTIVE



OurWorldinData.org – Research and data to make progress against the world's largest problems. Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020). Global CO₂ emissions from transport This is based on global transport emissions in 2018, which totalled 8 billion tonnes CO₂.

This is based on global transport emissions in 2018, which totalled 8 billion tonnes CO_2 . Transport accounts for 24% of CO_2 emissions from energy.



Our World in Data

Ourworldindata.org



WHERE DOES ENERGY CURRENTLY COME FROM?



Source: Our World in Data based on BP Statistical Review of World Energy & Ember (2020) Note: 'Other renewables' includes biomass and waste, geothermal, wave and tidal.

CC BY

Global primary energy consumption by source The breakdown of primary energy is shown based on the 'substitution' method which takes account of inefficiencies in energy production from fossil fuels. This is based on global energy for 2019.

Our World in Data



"Other renewables' includes geothermal, biomass, wave and tidal. It does not include traditional biomass which can be a key energy source in lower income settings. OurWorldinData.org - Research and data to make progress against the world's largest problems. Source: Our World in Data based on BP Statistical Review of World Energy (2020). Licensed under CC-BY by the author Hannah Ritchie.



LIQUID FUELS ARE IN OUR FUTURE...

Current EIA Projection of Transportation sector consumption (by fuel) quadrillion British thermal units



Source: U.S. Energy Information Administration, Annual Energy Outlook 2020, Reference Case

*Hypothetical case based on EIA numbers and data from Rhodium Group Study 2020. The penetration rate of electrification is highly uncertain.

Hypothetical Projection Assuming Significant Penetration Of Electrification* quadrillion British thermal units

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IF WE DON'T CHANGE ENERGY SOURCES, WE ARE GOING TO HIGHER LEVELS OF GHG'S





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IF WE DON'T CHANGE ENERGY SOURCES, WE ARE GOING TO HIGHER LEVELS OF GHG'S



If GHG emissions continue at the same rate globally as seen in the last 30 years projected out to 2050, GHG levels could reach ~490-500ppm









Norway mandates biofuel blending

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United Airlines Pledges 100% Green by Reducing Greenhouse Gas Emissions 100% by 2050 Amazon Climate Pledge: Net-zero by 2040



RECENT HEADLINES – CLIMATE CHANGE

A million young people urge governments to prioritize climate crisis - The Guardian

unodo sagitus cu at in hac habitasse Further inaction on climate change is simply not an option

Penguins Threatened By Climate Change Face Rising sea levels could swamp major cities and **Extinction Without Our Help** displace almost 200 million - UNILAD

Phys.org

It was 84 degrees near the Arctic Ocean this weekend as carbon dioxide hit its highest level in human history - Washingt orom inclum dal in hac habitasse

Climate change: How frogs could vanish from ponds - BBC

Millions of Salmon in Norway Killed by Algae Bloom - New York Times

'Extraordinary': Almost 1/4 of West Antarctic ice is now - amet lacinia nisi portuce A TODAY

A Warming Arctic Produces weather Extremes Thousands of Seagulls are starving in the Behring Sea – Scientists see Evidence of Climate Change-The Washington Post arom incum dal tatur a lininging lit Q :



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people, scientists say

- NBC News

JETS HAVE AN ISSUE EVERYONE UNDERSTANDS





THINKING ABOUT CARS: WHAT IF WE COULD ELIMINATE THE TAILPIPE EMISSIONS OF CARS ON A FULL LIFE CYCLE BASIS?



Figure 1. Life-cycle emissions (over 150,000 km) of electric and conventional vehicles in Europe in 2015.



IF WE USE A NET ZERO FUEL, ITS CONCEIVABLE!





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WE ARE GOING AFTER THE "WHOLE GALLON" WITH AN ULTRA-LOW CARBON SCORE...

Paradigm Shift



- Production is proven
- Works with all types of engines
- Works with all ages of vehicles
- Compatible with fuel infrastructure (tanks and pipelines)
- Easy to adopt⁽¹⁾

Potential to replace all the fossil hydrocarbons in a gallon with renewable hydrocarbons



OUR MISSION: CAPTURING RENEWABLE ENERGY AND TRANSFORMING IT INTO ENERGY-DENSE LIQUID HYDROCARBONS

...Transforming it into Energy Dense **Capturing Renewable Energy... Liquid Hydrocarbons Photosynthesis Biogas and Renewable Renewable Energy Becomes: Natural Gas (RNG)** Manure, Agricultural Residue, "Drop in" as a fuel to existing infrastructure and and or Waste-water fleets ⁽¹⁾ **Infrastructure already exists** Allowing renewable energy to reach wide markets stored and transported **Immediate**, significant carbon reduction. Wind Power Consumers don't have to make any alterations to current vehicles **Net-Zero GHG footprint potential when** burned to generate energy for transportation

GEVO OVERVIEW



OVERVIEW OF GEVO, INC. (NASDAQ: GEVO) WE CAPTURE RENEWABLE ENERGY AND TRANSFORM IT INTO ENERGY-DENSE LIOUIDS

Business Overview

- Headquarters: Englewood, CO
- Founded: 2005
- Products: De-fossilized hydrocarbon fuels, Feed, Corn Oil, Isobutanol
- \$400M patent estate**
- Cash:~\$535 Million (1/19/2020)
- Common shares outstanding: ~198 million (1/22/2020)
- We still need to build out large scale capacity, are in the middle of the FEED engineering, and are working out the financing of Net-Zero 1 plant

Facilities Overview

- Net-Zero 1 (Lake Preston, SD) To Be Built, 45MMGPY hydrocarbons and 365,000lbs/y of high protein feed. The hydrocarbons are expected to have a net-zero GHG footprint across the life-cycle
- Jet fuel and gasoline plant (Silsbee, TX)⁽⁴⁾ 100,000/GPY of capacity; operating since 2011, producing jet and isooctane for gasoline. Commercial sized scale up fermentation facility (Luverne, MN)⁽⁵⁾ – Capacity to produce 1.5 MMGPY IBA; production proven in full scale fermenter system

Corporate Headquarters (Englewood, CO) – Offices and Labs



Luverne, MN Facility



Silsbee, TX Facility

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The estimate is based on certain assumptions in the contracts, including the value of certain environmental credits and the sales price of the fuel. This estimate represents the revenue over the entire term of the contracts.

epresents midpoint of possible outcomes ranging from \$300mm to \$900mm depending on negotiations.

- Includes distributors and end customers.
- Operated in partnership with South Hampton Resources, Inc.

Production for isobutanol operations are currently shut-down until further notice.

**Estimated Value of IP by Peak Value IP LLC, August 2020

USING RENEWABLE CARBON AND ENERGY TO DEFOSSILIZE

GEVO'S BUSINESS SYSTEMS, FROM RAW MATERIALS TO RENEWABLE FUELS, EXEMPLIFIES THE CIRCULAR ECONOMY IN ACTION



POTENTIAL FOR 100% REDUCTION IN GHG EMISSIONS⁽¹⁾

100% OF AGRICULTURAL FEEDSTOCK NUTRITIONAL VALUE IS RETURNED TO THE FOODCHAIN

Soil Carbon Capture has Potential to Drive to Negative Life-Cycle GHG Emissions

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A NEW GAME IN RENEWABLE ENERGY



Renewable Energy Liquids can be used for transportation fuels



- Potential to replace whole gallons with premium fuel
- Potential exists to eliminate the carbon footprint

Sources: EIA, IEA and Nexant, US DOT FHWA



MARKET TRACTION & GROWING DEMAND FOR GEVO FUELS⁽²⁾

Product Mix



Volume	SAF	Gasoline Products ⁽³⁾
48 600	400%	51%
40,000	U/ CT	5170
35,500	86%	14%
259,000	33%	67%
	Volume 000 GPY) ⁽¹⁾ 48,600 35,500 259,000	Volume 000 GPY) SAF 48,600 49% 35,500 86% 259,000 33%

TOTAL gallons in development pipeline 343,000,000/yr

(1) The estimate is based on certain assumptions in the contracts.

(2) As of January 25, 2021. There can be no guarantee that any additional contracts are completed, and companies on the list may be deleted or new ones added at any time. There is no guarantee that the company will update this slide and present it in the future

(3) IBA and/or isooctane



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RENEWABLE LOW CARBON HYDROCARBONS WORK COMMERCIALLY BECAUSE CARBON REDUCTION IN FUELS CAN BE VALUED AND MONETIZED



(1) Applicable environmental benefits and amount of sharing between Gevo and customer varies by contract; includes Low Carbon Fuel Standard (LCFS) credits, Blender's Tax Credit, EU RED II credits, RINs and Advanced Fuels Credit. **Projected project-level internal rate of return based on a project financing structure and assumptions around offtake contract pricing, carbon value, capital costs, and operating costs, all of which are subject to revisions



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NET-ZERO 1 PROJECT

Planned to be Gevo's first world scale project – Lake Preston, South Dakota

 45MGPY of hydrocarbons that have potential to reach a Net-Zero GHG footprint* when burned as transportation fuels

– Jet

– Gasoline

- 350,000,000 lbs/yr of high protein animal feed
- Self sufficient for boiler gas (biogas)
- Generate about 30% of electricity on site from biogas
- Wind energy (Wired to Net-Zero 1)
- RNG could be brought to the plant
- \$700-800M capital cost (including on-site renewable energy generation)



NET-ZERO 1: PRODUCT LIFE CYCLE EMISSIONS



Cradle to Cradle Life-cycle Emissions of Hydrocarbons used for Transportation Fuels

The fuel products could have very negative carbon value at the plant

POTENTIAL CARBON SCORE

If at Gevo Gate:	Then, Cradle to Cradle (after being burned as a fuel for transportation):
-54	26
-81	-11
-135	-65
-199	-129

Driving the footprint lower:

- Carbon Capture Storage (CCS) has potential to reduce the CI by up to an additional ~150 points
- Bringing biogas into the plant from external sources has potential to decrease CI by an additional 6-30 points depending on quantity



GETTING TO LARGE, PROFITABLE SCALE

Off-Balance Sheet Style Financing

Gevo is leading the project development for the first group of plants

- Net-Zero 1: ~45MGPY of capacity is in development and front-end engineering design
- Net-Zero 2: Another ~45MGPY plant to meet demand
 - We need off-take contracts finalized
- Net-Zero 3....etc
- CitiGroup is working with Gevo to secure the debt and equity (estimated to be \$700-800M) for the projects which include hydrocarbon production and associated renewable energy

Additional Net-Zero opportunities developing ex-US

- India: We are working on a licensing program with Praj
- EU: Several licensing opportunities being developed

Gevo is likely to be a co-equity investor in the SPEs

Development and Financing Model



Gevo, Inc. Role:

- Establish Off-take Contracts
- Quality and Sustainability Compliance for Licensees
- Technology Optimization
- Develop Projects to Fulfill Demand
- License Technology

Making Money

- Technology Royalty
- Marketing Fees
- Project Development Fees
- O&M and Asset Mgmt. Fees
- Equity ownership
- Sustainability Tracking Fees



GEVO - KEY INVESTOR "TAKE-AWAYS"

- Transform renewable energy into energy-dense liquid hydrocarbons with a net-zero GHG footprint across the lifecycle
 - Products proven to work for transportation fuels (gasoline and jet fuel are current focus)
 - Production processes work
 - Intellectual Property (IP) valued +\$400 million*
- Huge end markets and we can solve problems around GHG's for liquid fuels, leveraging existing transportation fuel infrastructure, cars, trucks and planes
- Long-term, take or pay contracts in place, more developing
 - Strong, Global Players
- Focus on building large scale production plants with off-balance sheet financing. Economics are attractive (+20% IRR)**
 - Citigroup Project
 - Other sites in development
- Money for the development of our Net-Zero plant(s) on the balance sheet



GEVO 2021-KEY THINGS TO BE DONE

- Complete the engineering for Net-Zero 1
- Secure additional customer off-take agreements that support additional Net-Zero plants
- Secure a site for Net-Zero 2 production plant
- Secure a site for Net-Zero 3 production plant
- Announce financing and onset of construction of an RNG project in Northern Iowa
- Secure investment agreements with strategic and financial project investors for Net-Zero projects (if appropriate)



How to Transform Renewable Energy and Carbon into Energy-Dense Liquids



That have potential for Net-Zero emissions when burned as transportation fuels

BURNING OF FOSSIL FUEL RELEASES FOSSIL CARBON

Liquid Hydrocarbons are a Terrific Energy Carrier; Infrastructure Already Exists





OUR TECHNOLOGY LEVERAGES THE BEST OF BIOLOGY AND CHEMISTRY



Carbon Dioxide Water We must do the reverse of burning, but with renewable, low carbon energy. And we need a renewable carbon source!



Isooctane (gasoline)



Jet Fuels





OUR TECHNOLOGY LEVERAGES THE BEST OF BIOLOGY AND CHEMISTRY





A NEW GAME IN RENEWABLE ENERGY

Raw Materials



Most carbohydrate-based raw material can work

Renewable, Low-Carbon Fuels



Target Markets/Products (>955 BGPY)

- Potential to replace whole gallons with premium fuel
- Potential exists to eliminate the carbon footprint



PROVING THE PRODUCTION PROCESSES AND PRODUCTS







Eliminate the Fossil Emissions, Capture Carbon, Drive the GHG Footprint Down



USING RENEWABLE CARBON AND ENERGY TO DEFOSSILIZE

GEVO'S BUSINESS SYSTEMS, FROM RAW MATERIALS TO RENEWABLE FUELS, EXEMPLIFIES THE CIRCULAR ECONOMY IN ACTION



POTENTIAL FOR 100% REDUCTION IN GHG EMISSIONS⁽¹⁾

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Soil Carbon Capture has Potential to Drive to Negative Life-Cycle GHG Emissions

CAPTURING CARBON IN THE SPOIL: SUSTAINABLE AGRICULTURE OFFERS POTENTIAL UPSIDE

Impact of Agricultural Practice on Total Life-Cycle for Hydrocarbons Burned for Transportation Energy

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Companies such as Indigo, and Locus believe that soil carbon capture can be dramatically increased leading to orders of magnitude increase by building root systems. If true, the amount of carbon capture per gallon could be in the 10's of kgs per gallon. We are working with these companies to figure it out.

Data presented is based on Argonne GREET and IPCC Guidelines and includes a number of assumptions, factors and estimates that are subject to change

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Agriculture improvements

Sequester carbon in the soil

are practical and being done

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GLOBAL CERTIFICATIONS AND TRANSPARENCY

ISCC

ISCC PLUS certification enables Gevo to validate the responsible nature of its liquid transportation fuels and to highlight the traceability, qualifying that such fuels are produced in a sustainable manner

TRACKING CARBON AND SUSTAINABILITY ACROSS THE BUSINESS SYSTEM

Gevo is partnering with Blocksize Capital to establish **blockchain** technology for tracking sustainability, buildin trust and setting the highest standards for the industry

Yes, The Products are Proven

JET FUEL: FULLY CERTIFIED, WORKS WITH ALL JET PLATFORMS

gevo

RENEWABLE GASOLINE (ISOOCTANE)

High performance renewable gasoline currently being used in F1 racing

Works with any gasoline combustion engine (e.g., standard cars on the road today—even old ones)

Haltermann Carless

New Concept for Capturing Renewable Carbon and Delivering Net Zero Renewable Energy to Market

RENEWABLE ENERGY TRANSFORMED INTO LIQUIDS

Easy to Store, Easy to Use, Drop-in, Works with Existing Infrastructure and Fleets

WHEN CONSIDERING THE WHOLE BUSINESS SYSTEM, GEVO CAN IMPACT MANY AREAS

FOR ADDITIONAL INFORMATION ABOUT GEVO

These short videos explain more about Gevo, our process, business system, and how we think about sustainability

Working Toward Zero Carbon Footprint (2:46): https://vimeo.com/440219829 Food and Fuel (1:19): https://vimeo.com/440220247 Where we are so far (1:21): https://vimeo.com/416215170 Alternative Feedstocks (1:00): https://vimeo.com/416214862 Our Process (1:01): https://vimeo.com/416215010 Replacing Fossil Based Carbon (2:07): https://vimeo.com/396232536 Farming Carbon & Soil Conservation (1:54): https://vimeo.com/379773448 Sustainable Jet Fuel (1:59): https://vimeo.com/379896308 Partners with Mother Nature (1:49): https://vimeo.com/416215170 Going After the Whole Gallon(0:50): https://vimeo.com/451342705 SAF Opportunities (0:40): https://vimeo.com/451342390 We are Recycling Carbon (0:45): <u>https://vimeo.com/451341985</u> Our Circular Economy (0:48): https://vimeo.com/451341499

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