Innovative New Pathways for Activated Carbon

June 30, 2021

Ed Woodcock, EVP and President, Performance Materials

David Newton, Vice President, Corporate Strategy
Disclaimer: This presentation contains “forward-looking statements” within the meaning of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. Such statements generally include the words “will,” “plans,” “intends,” “targets,” “expects,” “outlook,” or similar expressions. Forward-looking statements may include, without limitation, expected financial positions, results of operations and cash flows; financing plans; business strategies and expectations; operating plans; impact of COVID-19; capital and other expenditures; competitive positions; growth opportunities for existing products; benefits from new technology and cost-reduction initiatives, plans and objectives; markets for securities and expected future repurchases of shares, including statements about the manner, amount and timing of repurchases. Actual results could differ materially from the views expressed. Factors that could cause actual results to materially differ from those contained in the forward-looking statements, or that could cause other forward-looking statements to prove incorrect, include, without limitation, adverse effects from the COVID-19 pandemic; adverse effects of general economic and financial conditions; risks related to international sales and operations; impacts of currency exchange rates and currency devaluation; compliance with U.S. and foreign regulations concerning our operations outside the U.S.; changes in trade policy, including the imposition of tariffs; adverse conditions in the global automotive market or adoption of alternative and new technologies; competition from producers of alternative products and new technologies, and new or emerging competitors; competition from infringing intellectual property activity; worldwide air quality standards; a decrease in government infrastructure spending; the impact of adverse conditions in cyclical end markets on demand for engineered polymers products; declining volumes and downward pricing in the printing inks market; the limited supply of or lack of access to sufficient crude tall oil; a prolonged period of low energy prices; the impact of the United Kingdom’s withdrawal from the European Union; exposure to unknown or understated liabilities from the acquisition of the Perstorp Holding AB’s Capa® caprolactone business; the provision of services by third parties at several facilities; supply chain disruptions; natural disasters, such as hurricanes, winter or tropical storms, earthquakes, tornados, floods, fires; other unanticipated problems such as labor difficulties, equipment failure or unscheduled maintenance and repair; attracting and retaining key personnel; protection of intellectual property and proprietary information; information technology security breaches and other disruptions; complications with designing and implementing our new enterprise resource planning system; government policies and regulations, including, but not limited to, those affecting the environment, climate change, tax policies, tariffs and the chemicals industry; and lawsuits arising out of environmental damage or personal injuries associated with chemical or other manufacturing processes and the other factors detailed from time to time in the reports we file with the SEC, including those described under "Risk Factors" in our Annual Report on Form 10-K and other periodic filings. These forward-looking statements speak only as of the date of this presentation. Ingevity assumes no obligation to provide any revisions to, or update, any projections and forward-looking statements contained in this presentation.
Experienced Business Leadership

**Ed Woodcock**
*Exec. VP and President, Performance Materials*

- Joined Ingevity in 1988
- 32 years of global experience managing Performance Materials and Performance Chemicals product lines
- Created a regulatory advocacy program to drive emissions reductions around the world, while supporting growth of the automotive activated carbon business
- Led long-term strategic expansions of our manufacturing assets across North America and Asia
- Simplified and streamlined supply chain to support global demand and create supply efficiencies
- Positions included:
  - Vice President, Carbon Technologies
  - Global Business Director, Automotive
  - Business Director, Automotive, Asia-Pacific
  - Marketing Manager, Worldwide
  - Area Sales Manager, Latin, Central and South America
  - Technical Manager, Process Purification
- Bachelor of Science degree in chemical engineering from the University of Virginia

**David Newton**
*Vice President, Corporate Strategy*

- Joined Ingevity in 2010
- Successfully led cross-functional team focused on assessing the demand for natural gas vehicles and creating and driving business plan for market development
- Positions have included:
  - Vice President, Commercial and Innovation, Performance Materials
  - Commercial Director, Performance Materials
  - Project Director, Adsorbed Natural Gas
  - Product and Pricing Manager, Oilfield Technologies
  - Technical Marketing Manager, Pavement Technologies
- Master of Business Administration from the University of North Carolina – Chapel Hill’s Kenan–Flagler Business School
- Master’s degree in civil engineering from Clemson University
Today’s Agenda

1. The Activated Carbon Landscape and What Sets Ingevity’s Nuchar® Products Apart
2. How Our Adsorbed Natural Gas Vehicle Technology Is Changing the Game of Alternative Fuels
3. Growing Opportunities for Activated Carbon in Bulk Gas Storage and Transport
4. Other Exciting Applications for the Nuchar Portfolio
5. Q&A
The Activated Carbon Landscape and What Sets Ingevity’s Nuchar Products Apart
The Activated Carbon Landscape

Activated carbon use by application in 2020 (1)

- 38% Water treatment
- 18% Wood
- 22% Coconut
- 42% Coal
- 19% Food
- 15% Chem., pharma.
- 3% Other

Activated carbon raw materials – 2020 (1)

- 18% Hardwood sawdust
- 18% Wood
- 42% Coal
- 25% Coconut
- 19% Food
- 38% Water treatment
- 3% Other

Material comparison (2)

<table>
<thead>
<tr>
<th>Material</th>
<th>Activation process</th>
<th>Porosity</th>
<th>Functionality</th>
<th>Primary applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardwood sawdust</td>
<td>Chemical Thermal</td>
<td>Micro (small)</td>
<td>Capture</td>
<td>Gasoline vapor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meso (med.)</td>
<td>Hold Release</td>
<td>Methane</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Macro (large)</td>
<td></td>
<td>Water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Food</td>
</tr>
<tr>
<td>Bituminous Coal</td>
<td>Thermal</td>
<td>Micro</td>
<td>Capture</td>
<td>Water treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hold</td>
<td>Air / gas</td>
</tr>
<tr>
<td>Lignite Coal</td>
<td>Thermal</td>
<td>Micro</td>
<td>Capture</td>
<td>Mercury</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hold</td>
<td></td>
</tr>
<tr>
<td>Coconut</td>
<td>Thermal</td>
<td>Micro</td>
<td>Capture</td>
<td>Air / gas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hold</td>
<td>Gas masks</td>
</tr>
</tbody>
</table>

2: Ingevity management information

We are 40–year experts in gas capture and release for automotive gasoline vapor emission control

Our phosphoric acid chemical activation process of hardwood sawdust produces the most effective carbon for automotive gasoline vapor emission control, due to:

- Large surface area and optimal pore structure
- Manufacturing process designed for product consistency
- Large-scale global production

Our carbon is designed for high–value applications that require gas vapor capture and release.
Ingevity’s Carbon Technology Advantage
Expertise, unique processes and product performance set us apart

40 years of technology and business leadership in high-performance, high-porosity activated carbon

- We operate multiple hardwood chemical carbon activation facilities in the U.S. and China
- Robust process and product innovation and intellectual property development
- Our engineering expertise, manufacturing process, product consistency and reputation create a challenge for automotive entrants

Unmatched product features of Nuchar

- Powdered activated carbon
- Granular activated carbon
- Pelletized activated carbon
- Activated carbon honeycombs

- Hardwood sawdust-based
- Unique chemical activation process
- Large surface area
- Optimal porosity with controlled particle size distribution
- Proven, long-lasting performance
The Sustainable Nature and Environmental Benefits of Our Nuchar Technology

Sustainable nature of Nuchar

Renewable raw material

Hardwood sawdust + phosphoric acid

Market applications

- Water treatment
- Food and beverage
- Chemical and pharmaceutical
- Automotive applications
  - Tier 1: canister solutions
  - Tier 2: ORVR refueling solutions
  - Tier 3, LEV III: near-zero solutions

As part of our commitment to making a positive global impact, we have validated the environmental benefits of Nuchar in automotive applications.

**GHG reduction impact**

Based on our 2019 carbon production volume, the use of Nuchar to recover gasoline vapors will prevent 5.1 million tons of CO₂ emissions, which is more than 10 times the amount of CO₂ released from its manufacture.

**VOC reduction impact**

We estimate that Nuchar products prevent >20,000 metric tons of volatile organic compound (VOC) emissions – the equivalent of 8 million gallons of gasoline – from entering the atmosphere daily.

By preventing the release of these VOCs, our products help to eliminate the formation of ozone and secondary organic aerosols.

Our activated carbon technology can benefit applications beyond automotive gasoline vapor emission control for internal combustion engine (ICE) vehicles.

---

1: ERM GHG study, 2020
2: Ingevity management estimates
Our Strategy for New Activated Carbon Pathways
Beyond gasoline vapor emission control for ICE vehicles

**CAPITALIZE**
Capitalize on our manufacturing and technology expertise and the release capability of our carbon to identify new end-uses

**DIVERSIFY**
Beyond gasoline vapor emission control for ICE vehicles, diversify into end-use markets where our activated carbon adds value

**FOCUS**
Focus on high margin and sustainability-focused end-uses for our products

**INVEST**
Invest in additional manufacturing capabilities and strategic relationships to drive additional revenue
Where Nuchar Can Add Value Beyond Gasoline Vapor Emission Control for ICE Vehicles

Nuchar’s attributes enable us to strategically focus beyond automotive gasoline vapor emission control into attractive end-use applications.

Capture and release properties
We target applications where our carbon is uniquely suited to capture, store and release gas vapors more efficiently.

1. Alternative fuels
   Adsorbed natural gas (ANG) vehicles

   TAM
   3 million light-duty vehicles (1) | $1 billion to $2 billion (2)

2. Bulk gas storage
   ANG for compressed and renewable gas storage

   TAM
   300+ sites by 2025 (3) | $40 million to $120 million by 2025 (3)

3. Other applications
   Air filtration
   Drug delivery
   Chloramine reduction
   Process purification
   Siloxane removal

---

1: Wards Intelligence; light-duty vehicle (LDV) refers to the ~3 million pickup trucks, SUVs and vans sold to fleets in the U.S. annually for the last decade
2: Ingevity management estimates; assumes even 50% fleet conversion to ANG
3: Data estimating number of U.S. methane-producing sites by 2030 from these sources: Renewable Natural Gas Coalition (RNGC), National Renewable Energy Laboratory (NREL) and U.S. Department of Energy (DOE); in trials to determine optimal NGVT content per tank; range based on $125k – $375k carbon content per tank.
How Our ANG Vehicle Technology Is Changing the Game of Alternative Fuels
Proven alt–fuel solutions neglect the light–duty vehicle (LDV) segment (1).

The U.S. LDV segment is attractive for many reasons.

- LDVs are the vehicle of choice for public and private fleets.
- Stakeholders are looking for ways to meet sustainability and GHG reduction goals with their existing LDV fleets, which they currently cannot do with electrification.
- In the absence of other proven alt–fuel technologies for LDVs, fleet owners need viable solutions today and can’t wait for OEMs to electrify trucks and vans economically.

The U.S. LDV segment is meaningful in a growing market.

Fleet percentage of total LDV share is

![Graph showing fleet vehicle share of total U.S. LDV sales from 2011 to 2021.](image)

1: IHS data as of September 2017
2: Wards Intelligence, June 2021
What Is ANG Vehicle Technology?
An economically viable, game-changing alternative fuel solution for light-duty truck and van fleets

Ingevity’s proprietary ANG technology is counterintuitive. A natural gas cylinder filled with our Nuchar activated carbon stores more gas than a traditional empty compressed natural gas (CNG) tank at the same pressure.

ANG: the low-pressure game changer

ANG provides fleet owners and operators with a cost-effective, less energy intensive, more environmentally friendly alt-fuel solution for LDVs.

- Overcomes existing impediments of high-pressure CNG vehicles and stations that are expensive and lacking in number
- Delivers easy private fueling to fleets of any size and location via a low-cost appliance that can be installed anywhere with natural gas access
- Allows fleets to easily tap into the environmental benefits of natural gas and ultraclean renewable natural gas (RNG) on-site

ANG’s turnkey platform:

Today, public and private fleets across the U.S. are using ANG-powered Ford F-250 trucks and Transit vans along with the accompanying fueling appliance to reduce their carbon footprint. These vehicles produce:

- ~25% lower tailpipe greenhouse gas (GHG) emissions\(^\text{1}\)
- 90% fewer NOx emissions than the current standard\(^\text{2}\)

\(1\) U.S. Environmental Protection Agency
\(2\) Natural Gas Vehicles of America
ANG Also Delivers Scalable Carbon Demand

Even modest levels of market acceptance can drive a meaningful uplift in carbon volume

Activated carbon content per ANG vehicle (1)

The volume of Nuchar in the single cylinder onboard each ANG truck is roughly equal to that in 100 carbon-containing canisters – excluding the honeycomb scrubber – on a typical U.S. ICE LDV today.

The addressable ANG fleet vehicle market is $1 billion – $2 billion (2)

Pathway to significant ANG revenues

- Continue to leverage state-based alternative fuel subsidies and grants
- Broaden the number of ANG-compatible and ANG-certified OEM platforms beyond Ford via collaboration with GM, Toyota and others
- Generate recurring sales with a growing number of pilot fleets

Our ANG fleet partners

- National Fuel
- CITY OF ORLANDO
- OZ ANGA ENERGY
- PEOPLES
- RANGE RESOURCES
- Washington Gas
- Southern Company Gas
- Sempra Energy

Potential future fleet partners include:
- Businesses using last-mile delivery vans
- Government fleets
- Telecomm and cable companies
- Service businesses
- Utility providers

1:100 canisters assumes each canister has 2 liters of our activated carbon
2: Calculation based on Wards Intelligence; avg. 3 million U.S. fleet LDVs sold annually in 2011 - 2019 that could benefit from ANG.
<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td><strong>BUILD</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Produced the <em>first generation of ANG cylinders</em></td>
</tr>
<tr>
<td></td>
<td>▪ Designed vehicle upfit for 2018 Ford F-150 with second generation, commercial-ready cylinders</td>
</tr>
<tr>
<td>2018</td>
<td><strong>TEST</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Began use of Ingevity's own on-site fleet of ANG trucks for ongoing data collection</td>
</tr>
<tr>
<td></td>
<td>▪ Identified most compatible low-pressure fueling appliance to <em>solidify turnkey ANG truck and fueling appliance package</em></td>
</tr>
<tr>
<td></td>
<td>▪ Evaluated and <em>verified on-road performance of ANG upfit on Ford F-150</em></td>
</tr>
<tr>
<td>2019</td>
<td><strong>PILOT</strong></td>
</tr>
<tr>
<td></td>
<td>▪ <em>Unveiled a low-pressure fueling station</em> at our Ingevity Technical Center in North Charleston, S.C., to support ANG</td>
</tr>
<tr>
<td></td>
<td>▪ <em>SoCalGas</em> funded demonstration fleet of ANG trucks</td>
</tr>
<tr>
<td>2020–</td>
<td><strong>SELL</strong></td>
</tr>
<tr>
<td>2021</td>
<td>▪ <em>Ozinga Energy</em> announced strategic partnership</td>
</tr>
<tr>
<td></td>
<td>▪ <em>City of Orlando</em> began demonstration fleet pilot</td>
</tr>
<tr>
<td></td>
<td>▪ <em>Received grant to fund demonstration of 28 ANG trucks and vans</em> with fleet partners in Pennsylvania</td>
</tr>
<tr>
<td></td>
<td>▪ <em>Latest ANG upfit certified on 2021 Ford F-250</em></td>
</tr>
<tr>
<td></td>
<td>▪ <em>Acquired assets of ANGP, Inc.</em></td>
</tr>
<tr>
<td></td>
<td>▪ <em>First use of RNG at Ingevity fueling station</em></td>
</tr>
<tr>
<td></td>
<td>▪ <em>Ingevity announced strategic partnership with RNG platform GreenGasUSA</em></td>
</tr>
<tr>
<td>2022+</td>
<td><strong>GROW</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Collaborate with OEMs to adapt ANG on future light-duty vehicle platforms</td>
</tr>
<tr>
<td></td>
<td>▪ <em>Growing RNG use among light-duty segment</em> as part of ANG platform</td>
</tr>
<tr>
<td></td>
<td>▪ <em>Accelerate use of ANG for natural gas storage and transport</em> as part of GreenGasUSA collaboration</td>
</tr>
</tbody>
</table>
Growing Opportunities for Activated Carbon in Bulk Gas Storage and Transport
There Is a Significant Opportunity for Activated Carbon in Methane Capture

To turn harmful waste into low-carbon RNG

Our activated carbon can enhance the processing, purification and storage of RNG, as well as its use as a transportation fuel.

Nuchar ANG carbons are used to enable more optimal, lower-pressure and lower-cost natural gas storage and transport.

Up to 125% lower net GHG emissions (1) can be achieved when using RNG as a transportation fuel.

1: Natural Gas Vehicles of America
ANG Enables Lower–Cost Storage and Delivery for RNG Service Providers

Today: utilizing high–pressure CNG

- When scoping potential RNG–producing agricultural waste sites, RNG service providers calculate how many trailers they need to hold the amount of gas the site produces.
- Often, the site’s gas–producing capacity equates to partial trailers (e.g. 1.3).
- One full trailer can transport gas while the other must remain idle to store excess gas, creating unused capacity in an expensive piece of equipment.

Tomorrow: with low–pressure ANG \(^{(1)}\)

- A single ANG storage tank can be fully utilized to more efficiently, safely and reliably store gas on–site, providing a lower–pressure and –cost option than a CNG trailer with adequate capacity.
- Only one CNG trailer is needed to transport gas and can be filled to 100% capacity.
- As part of future R&D efforts, ANG technology could lower the cost of entry into the RNG space for smaller or geographically distant gas–producing sites.

Our bulk storage pilot program

We are piloting the first in–field ANG storage solutions to test and demonstrate the technology’s capability.

- One tank will be at the GreenGas processing facility in Lugoff, S.C.
- Another tank will be at the Gas Technology Institute’s controlled testing site outside Chicago, Ill.
- The modular, scalable solution contains ~1,000 pounds of Ingevity’s carbon.

The addressable opportunity for low–pressure bulk storage solutions is $40 million – $120 million \(^{(2)}\) by 2025 across ~300 methane–producing sites generating biogas that can be converted to RNG.

1: We are currently engaged in in–field pilot testing to determine the optimal amount of Ingevity activated carbon content required to reduce the pressure and capex of a bulk system.

2: U.S. methane–producing sites by 2030: GNGC, NREL, U.S. DOE; trialing to determine optimal NGVT content per tank; range based on $125k – $375k carbon content.
Other Exciting Applications for the Nuchar Portfolio
Additional Uses for Our Activated Carbon
Allow us to enter many other attractive markets

Where we participate today

**Air filtration**
Optimal pore size distribution and large internal surface area make Ingevity’s honeycombs especially suited in applications that improve air quality and control the spread of viruses like COVID-19.

**Process purification**
Nuchar is currently sold into many water, food and beverage purification markets. Particularly in food production, our carbon helps remove naturally occurring contaminants from food additives. Nuchar is also beneficial in critical taste and odor remediation in water treatment.

Potential opportunities under consideration

**Chloramine reduction**
Chloramine is widely used for municipal water treatment but studies suggest subsequent removal before drinking or adding to waste streams due to toxicity concerns. Our carbon reduces chloramine at the point of use in homes and offices.

**Siloxane removal**
Siloxane is released from everyday products like deodorant and cosmetics when they decompose at landfills, which is highly destructive to the engines of heavy-duty equipment on-site. Nuchar can protect equipment by capturing siloxane molecules via air intake before they foul the engine.

**Drug delivery**
Our activated carbon can be used as a carrier for other active ingredients in medication, enabling timed-release drug delivery to prolong the effectiveness of drugs and treatment protocols.
Confidence in Our Strategy for New Activated Carbon Pathways

Beyond ICE gasoline vapor emission control

**CAPITALIZE**

Capitalize on our manufacturing and technology expertise and the “release” capability of our carbon to identify new end-uses

**DIVERSIFY**

Beyond gasoline vapor emission control for ICE vehicles, diversify into end-use markets where our activated carbon adds value

**FOCUS**

Focus on high margin and sustainability-focused end-uses for our products

**INVEST**

Invest in additional manufacturing capabilities and strategic relationships to drive additional revenue