

## **Forward-looking statements**

- Statements in this presentation that are not historical are forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance including the effects of the COVID-19 pandemic and anticipated performance based on our growth and other strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or actual achievements to differ materially from the results, level of activity, performance or anticipated achievements. Significant risks and uncertainties may relate to, but are not limited to, business and market disruptions related to the COVID-19 pandemic, market conditions and price volatility for our products and feedstocks, as well as global and regional economic downturns, including as a result of the COVID-19 pandemic, that adversely affect the demand for our end-use products; disruptions in production at our manufacturing facilities; and other financial, economic, competitive, environmental, political, legal and regulatory factors. These and other risk factors are discussed in the Company's filings with the Securities and Exchange Commission (SEC).
- Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for our management to predict all risks and uncertainties, nor can management assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Unless otherwise required by applicable laws, we undertake no obligation to update or revise any forward-looking statements, whether because of new information or future developments.

## LSB Industries at a glance

#### **Business Overview**

- LSB Industries, founded in 1968 and headquartered in Oklahoma City, OK, is a publicly traded company that manufactures and sells chemical products for the agricultural, mining and industrial markets
- Three production facilities strategically located near customer demand areas
  - El Dorado, AR: Manufactures ammonia, ammonium nitrate, nitric acid, sulfuric acid, CO<sub>2</sub> and AN solution
  - Cherokee, AL: Manufactures UAN, ammonia, AN solution, nitric acid, CO<sub>2</sub> and diesel exhaust fluid
  - Pryor, OK: Manufactures UAN, ammonia and CO<sub>2</sub>



#### LSB is the fifth largest ammonia producer in the U.S.<sup>1</sup>



otes: 1. Companies 10K financial reports 2. Based on the past 5 years data

### The core manufacturing process



#### **Company Vision**

To be a leader in the energy transition in the chemical industry through the production of low and no carbon products that build, feed and power the world





## **Clean Energy**

# Globally a net of 40 Gt of CO<sub>2</sub>e greenhouse gas emissions are released into the atmosphere annually

#### Global greenhouse gas emissions by sector

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#### Global greenhouse gas emissions by country



Source: IPCC (Intergovernmental Panel on climate Change), EPA (Environmental Protection Agency) Buildings - include onsite energy generation and burning fuels for heat in buildings or cooking in homes Other Energy – include indirect emissions from the energy sector, such as fuel extraction, refining, processing, and transportation

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# The main future carbon-free energy sources are expected to be hydrogen and ammonia

#### **TRANSITION TO CLEAN ENERGY**

ENERGY	TODAY	TOMORROW
Heating	<ul> <li>NG</li> <li>Electricity</li> <li>Heating oil</li> <li>Propane</li> <li>Renewable Electricity</li> <li>RNG</li> </ul>	<ul> <li>Renewable Electricity</li> <li>RNG</li> <li>Hydrogen</li> <li>Ammonia</li> </ul>
Power & Light	<ul> <li>NG</li> <li>Coal</li> <li>Nuclear</li> <li>RNG</li> </ul>	<ul> <li>Renewable Electricity</li> <li>Biomass &amp; RNG</li> <li>Nuclear</li> <li>Hydrogen</li> <li>Ammonia</li> </ul>
Mobility	<ul> <li>Gasoline</li> <li>Diesel</li> <li>Bunker</li> <li>Jet Fuel</li> <li>Electricity</li> </ul>	<ul> <li>Renewable Electricity</li> <li>Biofuels</li> <li>Hydrogen</li> <li>Ammonia</li> </ul>

## New ammonia demand expected to add 12 MMT by 2030, driven by new uses like power generation and marine fuels

## 2020 annual consumption of hydrogen and ammonia

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#### **392 MMT 74 MMT 187 MMT Power Generation** 100% 30 Other Industrial uses: Total demand growth of 15 Steel explosives, refrigerant, H<sub>2</sub> Carrier 32 MMT expected by 2030, 90% 20% plastics, emission a 17% increase from 2020 13% Methanol abatement, chemical feedstock, water 80% 100 **Marine Fuels** treatment, pesticides, textiles 70% 7 Power Generation Industrial Ammonia 12 219 MMT Marine Fuels 60% 5 Fertilizers 48 4 Industrial 50% 16 Fertilizers Fertilizer, either direct or via downstream 40% 80% products like urea, UAN, AN, ammonium phosphate 30% 2020 demand and Total demand growth of 187 supply at 80% 187 50% Refining 205 MMT by 2050 with 145 20% MMT coming from new operating rates ammonia as a fuel application 10% 0% 2030 2050 Hydrogen Ammonia

MMT

Source: International Energy Agency, Argus Consulting, CRU Nitrogen Research, IRENA (International Renewable Energy Agency)

#### **Global ammonia demand forecast**

# Why is low carbon ammonia an essential fuel to decarbonize societies in the future?

#### Levelized CO<sub>2</sub>e emissions from the life cycle of various fuels



Source: Energy Information Agency, Environmental Protection Agency, Progress in Energy and Combustion Science, Vol 69 Nov 2018

### L\$B

## The clean energy transition has begun

## First Bunkering and Tests of Ammonia as Marine Fuel Completed in Singapore



Fortescue Green Pioneer successfully bunkered with ammonia and began engine tests (MPA) PUBLISHED MAR 15, 2024 6:24 PM BY THE MARITIME EXECUTIVE

#### JERA to conduct trial of co-firing ammonia at coal power plant from March to June

By **Yuka Obayashi** March 13, 2024 7:25 AM CDT · Updated 5 days ago





A general view of Japan's biggest power generator JERA's thermal power station, as it prepares to start operation of a new 1.07 gigawatts (GW) coal-fired power plant to help alleviate the electricity crunch in the summer, in Taketoyo, Aichi Prefecture, July 14, 2022. Picture taken July 14, 2022. REUTERS/Yuku Obayashi/File Photo <u>Purchase Licensing Rights</u> [\*]

## Producing low carbon ammonia at El Dorado, AR





- Lapis Energy to develop and construct CO2 capture and sequestration project at LSB's El Dorado facility
- Capital investment for LSB is minimal
- Lapis will capture and sequester >450,000 metric tons of CO2 produced annually in the course of El Dorado's ammonia production
- Lapis to receive 45Q federal tax credit of \$85 per metric ton of CO2 sequestered and pay a fee to LSB for each ton
- The carbon sequestration will result in >375,000 tons of low-carbon ammonia that LSB can potentially sell at a premium
- Once in operation, the project is expected to reduce LSB's Scope 1 CO2 emissions by ~25% and result in an estimated \$15 \$20 million of incremental EBITDA for the company.

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Source: Lapis Energy, LSB Industries, EPC (Engineering, Construction and Procurement) firms

## Zero carbon ammonia project at Pryor, OK



- May 2022 agreements with Bloom Energy and thyssenkrupp Uhde to develop a project to produce zero-carbon ammonia from green hydrogen produced using electrolyzers operating on renewable power at Pryor facility
- Given the 45V tax credit guidance from IRS around hourly renewable power matching, the project is currently on hold as we are back to the drawing board on how to move forward
- Should we move forward with this project, expect production of ~30,000 MT of green ammonia per year while reducing Pryor's CO2 emissions by ~36,000 MT per year
- We continue to work on developing customer demand/offtake

## **Houston Ship Channel Ammonia Project**

#### **Project Highlights**

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- New 1.1 million TPA ammonia plant at an attractive site in Deer Park, on the Houston Ship Channel – access to low-cost natural gas, key pipelines, and deepwater logistics
- Focused on the export market, particularly power generation demand from Japan and Korea – seizing government incentives at both production and consumption
- INPEX relationship with Japanese utilities provides strong potential to be highly-contracted with creditworthy counterparties, enabling predictable cash flows and non-recourse project financing

#### Location



Roles		
• Air Liquide	Hydrogen and nitrogen feedstock supplier	<ul> <li>#2 supplier of industrial gases with \$100 billion of EV</li> <li>To build and operate ASU and ATR for project</li> </ul>
INPEX	Equity partner and developer delivering Asian offtakers	<ul> <li>#1 E&amp;P company in Japan with \$25 billion of EV</li> <li>Equity partner to Air Liquide for ASU and ATR; equity partner to LSB for the ammonia loop</li> </ul>
Vopak exolum	Terminaling and logistics services	<ul> <li>JV between major terminaling and storage firms</li> <li>To provide site and services to the project</li> </ul>
	Ammonia loop equity partner and operator	<ul> <li>#5 ammonia producer in North America</li> <li>To own (&gt; 51%) and operate the ammonia loop</li> </ul>

#### **Illustrative Timeline**



#### The Amogy-LSB MoU

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## End-to-end supply chain of low-carbon ammonia as marine fuel



Amogy and LSB are starting a consortium of industry participants to advocate for lowcarbon ammonia as marine fuel and educate policy makers on the safe use of ammonia to power tugboats. This will help with the creation of safe and sound policy to decarbonize the marine transportation sector

## The Ag Sector will need to decarbonize by 2050



#### ANNOUNCED

-In 2021, our ambition to achieve **net-zero GHG emissions**, including Scopes 1, 2 and 3 emissions, by 2050



#### Reach net zero carbon

- Reach net zero in scope 1 and 2 by 2030
- Reduce scope 3 emissions by 21% by 2030
- Reduce emissions across our value chain (scope 1, 2 and 3) by 30% by 2030
- Reach net zero across our value chain by 2040
- 100% sustainably sourced ingredients (hops, barley) by 2030



Reduce absolute emissions by **25%** by 2030 against a 2015 baseline

Ambition to achieve **net zero** emissions by 2050



 Reduce the carbon intensity of bioethanol by 70% compared to traditional gasoline by 2030.

Continue to invest in technology to advance the development of low-carbon bioproducts that can displace more fossil-based fuel products.

Kraft*Heinz* 

GHG

New Goal: net zero GHG

emissions by 2050 and 50%

reduction by 2030 reduction across all three scopes with a

2021 base year

Transition POET's bioprocessing facilities to carbon neutrality by 2050.



Working Toward Net Zero

For the past few years we have been on a path to reduce our carbon emissions and in 2021 we took an important step forward – aiming toward a long-term goal of net zero GHG emissions across our full value chain by 2050.<sup>1</sup>



#### **SDG 13 CLIMATE ACTION**

by contributing to the fight against climate change notably by committing to achieve net zero emissions along our entire value chain by 2050



Our Net Zero Roadmap to reduce Nestlé's in scope emissions:

- by 20% by 2025 compared to 2018 baseline
- by 50% by 2030 compared to 2018 baseline
- to be net zero by 2050

General

Pledge to Achieve Net Zero Emissions by 2050

Climate science has progressed since we first set our targets

recommendations and guidance from the SBTi. In 2021, we joined

in 2018, and we are raising our ambition to meet current

McDonald's on the path to net zero emissions by 2050.

the United Nations Race to Zero campaign, pledging to put

**Our climate commitment** 

30% reduction in GHG emissions across the value chain by 2030





MARS



## Appendix

## **GHG** Protocol across the value chain

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