LUNDS UNIVERSITET

Transitions in energy and emissions intensive industries

FREDRIC BAUER | LCS-RNET | 15 DECEMBER 2021

Industrial emissions have been growing faster since 2000 than emissions in any other sector

Global material intensity is increasing

Close to net-zero emissions from GHG intensive industry can be achieved by 2050 by deploying multiple available and emerging options.

Industry has largely been sheltered from the impacts of climate policy.

New industrial development policy approaches needed for realising the transition to net zero GHG emissions.

Chemicals – a particular challenge

Emissions growing and shifting

The fossil lock-in continues

June 17, 2020 08:22 AM

Aramco completes acquisition o in Sabic

KAREN LAIRD

Sustainable Plastics

TWEET SHARE SHARE EMAIL

aramco سابك sabic

Aramco has successfully comp acquisition of a 70 percent stak Industries Corporation (Sabic) f Investment Fund (PIF), the sove Saudi Arabia. The total purchas billion, equating to $33 price per share.

BASF breaks ground on $10bn petrochemical project in China

WCN EDITORIAL TEAM 25 NOV 2019 ASIA ENERGY & UTILITIES

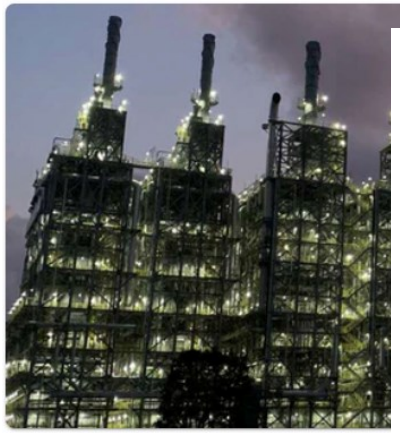
German chemical firm E

ZPC commissions Zhoushan ethylene plant

Zhejiang Petroleum & Chemical Co. Ltd. has completed startup of a 1.4 million-tonnes/year ethylene plant at its grassroots 800,000-b/d refining and chemical integrated complex in Zhoushan, Zhejiang Province, China.

Author — Robert Brelsford

May 4th, 2020



Zhejiang Petroleum & Chemical Co. completed Zhoushan, Zhejiang Province, China.

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ABIC, ExxonMobil bi S Gulf Coast petroche

oint venture of Saudi Arabian Bas onMobil Corp. has started constr res project, a 1.8 nplex in San Patr

Located in the city of Zh in phases with initial pha thermoplastic polyureth

October 22, 2020 01:59 PM

Shell Polymers sees new beginning

FRANK ESPOSITO

Plastics News Staff

TWEET SHARE SHARE EMAIL

Arabian Basic Industries Corp. (SABIC) and arted construction of the JV's Gulf Coast Gr , a 1.8 million-tonne/year ethane cracking c ex., near Corpus Christi (OGJ Online, July 25

ExxonMobil commissions Baytown ethane cracker

ExxonMobil Chemical Co. has started up its 1.5 million-tonne/year ethane steam cracker at the company's integrated chemical and refining complex in Baytown, Tex. Entered into operation on July 26, the new cracker will provide ethylene feedstock for two 650,000-tpy high-performance polyethylene lines that began production in fall 2017 at the company's plastics plant in Mont Belvieu, Tex.

Jul 26th, 2018

Drivers for recent investments

- US shale gas driving ethane-based investments in North-American production capacity and other markets through growing exports
- Crude-to-chemicals investments growing in Asia, supported through strategic partnerships by oil majors
- No signs of large-scale investments for decarbonization in analysis of recent investments (2012-2019)

Key messages

- Transition in energy intensive industries require profound technological and organizational changes across material value chains – from primary production to reduced demand, recycling and end-of-life of metals, cement, plastics, and other materials.
- Energy and emissions intensive industries must meet the challenge of net zero GHG emissions – rapid reorientation necessary in chemicals and other industries that are falling behind
- New climate and industrial policies are necessary for transforming the basic materials industries –so far relatively sheltered from climate mitigation.