



Energy Transition **TOOLKIT**

Essential Resources for
Communicating John Crane's
New Energy and
Sustainability Solutions

Energy Transition

Greenhouse Gas (GHG) Emissions Management

Carbon Capture, Utilization and Storage (CCUS)

Hydrogen

Energy Efficiency

Version 2





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Using This Toolkit

We have developed a wide range of content to help communicate, market and sell our New Energy Solutions effectively. This toolkit gathers all these essential resources into one place so that you can help customers navigate the energy transition with confidence.

As the energy transition evolves, we will continue producing content that reflects our customers' current and future needs. We will update this toolkit regularly to reflect our latest materials.

Categories

This toolkit groups resources into five categories: our four solution areas, as well as an overall energy transition category that functions as an ideal starting point for organizations that have not yet defined a focus for their sustainability efforts.

Energy Transition category content covers the entire John Crane New Energy Solutions portfolio as well as high-level sustainability themes. This content should help you pinpoint which of our New Energy Solutions areas — energy efficiency, GHG emissions management, CCUS or hydrogen — is most aligned with a customer's goals.

Use Cases

This toolkit is designed to provide all the resources you need to enhance a customer's sustainability journey with John Crane:

- Start a meaningful conversation about a prospect's energy transition wins and challenges
- Tailor your pitch to the specific needs of each customer
- Create custom presentations that address a prospect's unique challenges
- Deepen relationships by inviting customers and prospects to engage with our videos, webinars and interactive brochures
- Illustrate proven results via our ever-growing body of energy transition case studies
- Earn trust by showcasing our company's longstanding commitment to sustainability

Content Types

In this toolkit, you will find links to case studies, website pages, videos, white papers, eBooks, blog posts and numerous other content types.

For ease of use, we have grouped and labeled this content based on the prospect's stage in the buyer's journey

Awareness

Materials that help buyers become aware that they have a problem.

Consideration

Materials that help a buyer further define their problem and consider how to solve it.

Decision

Materials that help a buyer decide upon the best solution for their problem. Because these deeper stages of an engagement often require customized proposals, the majority of our content focuses on nurturing prospects through the awareness and consideration stages.



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Our Approach to the Energy Transition

John Crane is committed to supporting global efforts that address climate change, accelerate decarbonization and build a sustainable, secure new energy ecosystem. By doing so, we not only safeguard our planet and people, but the future of our industry.

John Crane's New Energy Solutions support our customers across all stages of the energy transition. Our solutions accelerate two fundamental net zero initiatives: the transition to clean energy and the overall reduction in greenhouse gas (GHG) emissions.

GHG Emissions Management

Reducing GHG fugitive emissions — with a focus on methane, which is up to 34 times more potent than CO₂ over 20 years — offers a cost-effective, viable approach to decarbonizing the oil and gas industry. We offer a broad range of proven solutions that are well-established in reducing emissions today.

John Crane also believes that it will take all available clean technologies to achieve ambitious net zero goals. To accelerate their adoption, we are delivering innovative solutions that enhance the scalability and affordability of CCUS and hydrogen.

CCUS

CCUS is a viable solution to reduce emissions in energy intensive sectors such as natural gas processing, chemical, cement and other industries. It is also a cost-effective pathway in countries with a large existing fossil fuel infrastructure. At John Crane, we believe CCUS will play a fundamental role in the low-carbon energy transition. We have deployed a range of market-ready solutions to accelerate progress across the CCUS value chain.



Hydrogen

Solidifying our industry's sustainable future will require the rapid acceleration of scalable low-carbon hydrogen solutions. John Crane is meeting this challenge with market-ready hydrogen innovations that equip our customers to achieve their decarbonization goals. These solutions are actively enabling hydrogen operations around the globe.

Energy Efficiency

We believe that energy efficiency provides one of the quickest, most cost-effective routes to curbing GHG emissions and enhancing energy security. Our market-leading technologies use less energy, drive increased efficiency, extend equipment lifespans and reduce operational costs.

New Energy Sales Deck

Use the deck's section on enhancing plant efficiency to educate customers on the link between operational and energy efficiency, and John Crane's energy reduction solutions.

[Download Presentation](#)



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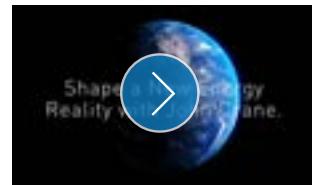
Use these materials to provide a high-level overview of John Crane's sustainability offering. These are ideal materials for customers who are:

- Interested in transitioning to clean energy but struggling to navigate the journey
- Looking to enhance their sustainability but have not yet determined a specific focus
- Not sure how John Crane can accelerate their environmental progress
- Just beginning to explore new energy and the energy transition

These materials can help determine a customer's energy transition challenge.



Awareness



New Energy Video

Provide a cinematic introduction that urges customers to join John Crane in making tangible sustainability progress today.

[View Video](#)



Innovative Solutions for Water Conservation: John Crane's Contributions to Sustainability

Educate a customer on the role of sealing solutions in reducing water consumption.

[Read the Blog](#)

Sustainability Webpage

Showcase John Crane's corporate commitment to net zero targets.

[Visit Website](#)



Balancing Risks and Opportunities in the Energy Transition

Provide an overview of key opportunities across emissions reduction, hydrogen, CCUS and energy efficiency.

[Read the eBook](#)



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Awareness



The Role of LNG in the Energy Transition

Deliver a high-level overview of LNG's potential as a bridge fuel and John Crane's track record for supporting the industry.

[Read the Blog](#)



Does Your GHG Emissions Reduction Strategy Include Asset Management?

Educate customers about concrete ways that asset management strategies can contribute to emissions reduction.

[Read the Blog](#)



Reflecting on Japan's Pivotal Role in the Energy Transition

Provide an overview of Japan's place in the new energy landscape and how John Crane's service network serves customers in this key global region.

[Read the Blog](#)



Seven Overlooked Ways That Lubrication Management Impacts Sustainability

Inform customers about the importance of lubrication management in the energy transition.

[Read the eBook](#)



The Role of Mechanical Seals in Process Safety and Sustainability

Explore sustainability through a process safety lens.

[Read the Blog](#)



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New Energy Webpage

Provide a succinct overview of John Crane's approach to the energy transition and a jumping-off point for exploring our market-ready solutions.

[View Webpage](#)



Lifecycle Cost Calculator

Understand how current sealing technology impacts energy usage, emissions and costs — and how an upgrade could impact all three.

[View Calculator](#)



Innovative Solutions for Accelerating Our Industry's Sustainable Future

Provide a collection of key new energy case studies.

[Read the eBook](#)



From Efficiency to New Energy: Using Couplings to Enhance Your Energy Transition

Take an in-depth dive into coupling types and selection for new energy applications.

[Read the Checklist](#)



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GHG Emissions Management

Use these materials to support customers who are looking to reduce emissions, including methane. This is an ideal place to start if customers have communicated a commitment to net zero but are unsure which concrete steps can help them achieve those targets.

Awareness



Fueling Net Zero Progress by Curbing Methane Emissions

In the race to reduce GHG emissions, there is perhaps no challenge more urgent than methane. View our white paper now to explore market-ready solutions that curb methane emissions and enhance reliability.

[Read the White Paper](#)

The Significance of Seal Retrofits on Emissions & Energy Efficiency

Introduce a customer to the environmental benefits of Dry Gas Seals.

[Read the Blog](#)



"Practical, Proven Solutions For Mitigating Greenhouse Gas Emissions"



[View the Social Post](#)



The Latest Advancements in LDAR and LDAQ

Educate customers on the latest advancements in leak detection and repair (LDAR) technologies and their role in emissions reduction.

[Read the Blog](#)

Consideration



John Crane's Dry Gas Seals Reduce Gas Emissions for Pipeline Station in the Middle East

Present a strong retrofit case study in which the customer lowered emissions by 98%.

[Read the Case Study](#)

"Sealing Solutions: Fueling Net Zero Progress by Curbing Methane Emissions"



[View the Social Post](#)



Curbing CO₂ Emissions With Seal Gas Recovery Systems

Help customers understand the features, benefits and possible energy savings of the SGR.

[Read the White Paper](#)



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GHG Emissions Management

Consideration (Cont.)



Emissions Reduced at Natural Gas Liquid Extraction Plant in the Middle East by Using John Crane Dry Gas Seals

Showcase how John Crane's retrofit helped a liquid extraction plant lower emissions by 97%.

[Read the Case Study](#)



Natural Gas Pipeline Station Reduces Gas Emissions by Switching to John Crane Dry Gas Seals

Present a strong retrofit case study for customers looking to reduce methane emissions.

[Read the Case Study](#)

[View the Social Post](#)

Decision



9 Tips for a Successful Wet-to-Dry Gas Seal Retrofit

More operators than ever are replacing wet seals with dry gas seals that reduce emissions and enhance reliability. Use our nine-step guide to streamline your retrofit process, from selecting the right candidate to navigating the complexities of old compressors.

[Read the eBook](#)



"Wet-to-Dry Gas Seal Retrofit - 9 Tips to Ensure Your Success"

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CCUS

Use these materials to support customers who are looking to launch or scale CCUS initiatives.

Awareness



Turbomachinery International Webinar

Educate customers on supercritical CO₂, one of the most significant challenges to CCUS scalability.

[View the Webinar](#)



Why Mechanical Seals are Critical to Accelerating Carbon Capture, Utilization and Storage (CCUS) Progress

Share this to help customers understand how John Crane's technology can help their CCUS project succeed.

[Read the Blog](#)



CCUS Fast-Track

Use this blog to showcase John Crane's thought leadership in CCUS and reinforce the urgency of scaling CCUS adoption.

[Read the Blog](#)



Accelerating Decarbonization: Seal Design Best Practices for CCUS in Ammonia Applications

Learn how sealing solutions can support CCUS ammonia initiatives and accelerate emissions reduction efforts across this energy-intensive sector.

[Read the Blog](#)

Mission-Critical Sealing Considerations for CO₂ and sCO₂

For customers who prefer eBooks to videos, provide this white paper covering content from the Turbomachinery International webinar.

[Read the White Paper](#)

Supercritical CO₂ Sealing Q&A: Your Top Questions From Our CCUS Webinar

Explore attendee questions and answers from our webinar on supercritical sealing solutions.

[Read the Blog](#)



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CCUS

Use these materials to support customers who are looking to launch or scale CCUS initiatives.

Consideration



John Crane Custom CO₂ Dry Gas Seals Help Open New Markets for Russian Fertilizer Producer and Leading Compressor Manufacture

Use this case study if your customer is an OEM, a fertilizer producer or is interested in using CCUS to open up new markets.

[Read the Case Study](#)



CCUS Interactive Brochure

Provide a deep dive into John Crane's solutions across the hydrogen value chain. This offers a more detailed overview than the CCUS webpage.

[View Brochure](#)

[View the Social Post](#)



Revolutionizing Power Generation in the World's First Supercritical CO₂ (sCO₂) Power Cycle Plant

Use this case study as a follow-on to the CO₂ webinar or white paper, or as a standalone illustration of John Crane's CCUS innovation.

[Read the Case Study](#)

CCUS Webpage

Offer a helpful overview of John Crane's approach to CCUS and our market-ready solutions.

[Visit Website](#)



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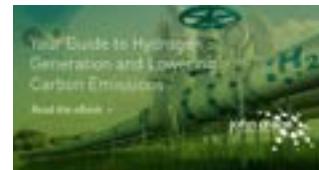
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Hydrogen

Use these materials to support customers who are looking to launch or scale hydrogen initiatives. This can include hydrogen produced through renewable- or nuclear-powered electrolysis and traditional natural gas reforming technologies retrofitted with carbon capture solutions.

Awareness



Introductory Guide to Hydrogen Generation

Provide a succinct guide on hydrogen production methods, transportation and storage challenges, and how John Crane's solutions are driving progress.

[Read the eBook](#)

[View Social Post 1](#)

[View Social Post 2](#)



The Role of Hydrogen in Achieving Sustainable Energy Goals

Reinforce the importance of accelerating hydrogen progress and John Crane's commitment to leading the way.

[Read the Blog](#)



Tackling the Hydrogen Embrittlement Challenge

Provide a helpful introduction to hydrogen embrittlement and the efforts of researchers working to overcome its challenges.

[Read the Blog](#)



Reassessing the Hydrogen Color Spectrum

Explore carbon intensity, a more nuanced, quantitative metric for evaluating hydrogen's environmental impact than the color spectrum system.

[Read the Blog](#)



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Hydrogen Interactive Brochure

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[Read Brochure](#)

Hydrogen Webpage

Offer a helpful overview of John Crane's approach to hydrogen and our market-ready solutions.

[Visit Website](#)

Build Your Sustainable Future Today With Market-Ready Hydrogen Solutions



[View Social Post 1](#)

[View Social Post 2](#)



Innovating Dry Gas Seals for the New Hydrogen Economy

Introduce John Crane's innovations in dry gas seals and their role in the new hydrogen economy.

[Read the Blog](#)



A Sustainability Voyage: Navigate the Hydrogen Value Chain With John Crane

View our on-demand webinar to learn how mechanical sealing technologies minimize leaks, enhance efficiency and reduce emissions across the new hydrogen value chain.

[View the Webinar](#)

Hydrogen Sealing Solutions Q&A: Your Top Questions From Our Hydrogen Webinar

View a transcript of the hydrogen webinar Q&A session.

[Read the Blog](#)

Proven Filtration Solutions Help 'World's First Green Container Ship' Maximize Reliability and IMO 2050 Progress

Discover how John Crane's filtration solution satisfied the customer's emissions reduction goals and showcased the viability of green methanol-fueled vessels.

[Read the Case Study](#)

Decision

Selecting the Right Couplings for Your Hydrogen Initiative

Use this checklist to help customers identify top considerations for hydrogen couplings.

[Read the eBook](#)

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Energy Efficiency

Closely linked to reliability, energy efficiency is a key benefit of John Crane's solutions — not only in our new energy portfolio, but across our core business. Use these resources with customers who want to enhance their efficiency or are seeking an easy starting point for their sustainability journey.



[Energy Efficiency Webpage](#)

Offer a helpful overview of John Crane's approach to efficiency and our market-ready solutions.

[Visit Website](#)



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Contacts

To request access to further promotional materials via the Energy Transition SharePoint site, please contact:

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Do you have questions about a particular aspect of our New Energy offering?

Use this directory to identify the right subject matter expert at John Crane.

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