

EconIQ™

Eco-efficient high-voltage portfolio

Advancing a sustainable energy future

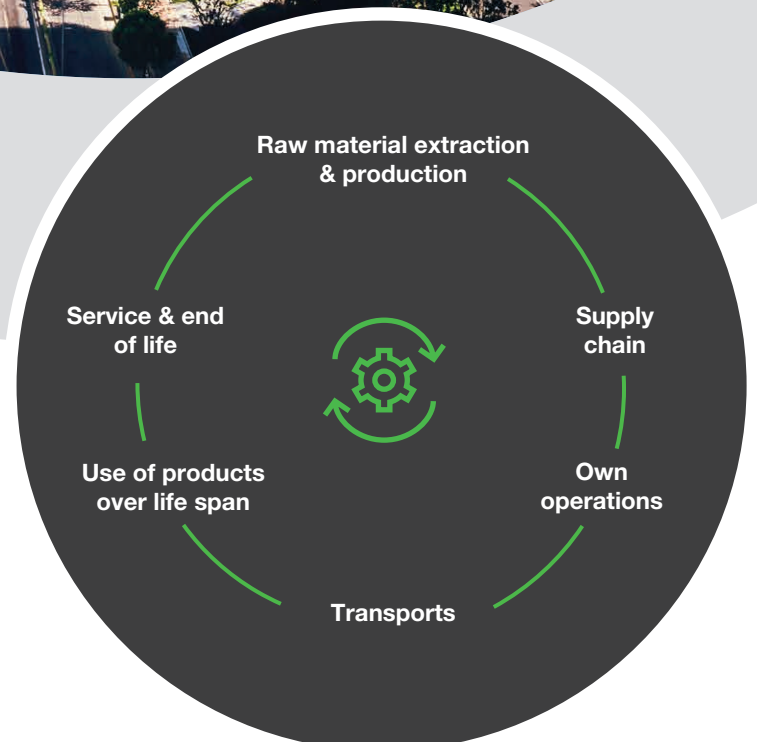
A game-changing technology that eliminates sulfur hexafluoride (SF₆) with reliable and scalable solutions for the lowest carbon footprint

EconIQ is Hitachi Energy's eco-efficient portfolio for sustainability where products, services and solutions are proven to deliver exceptional environmental performance. The EconIQ portfolio is sustainability-oriented in design to deliver a superior environmental performance compared to conventional solutions.

EconIQ high-voltage portfolio eliminates SF₆ and it has been proven to significantly reduce the carbon footprint throughout the total lifecycle.

Hitachi Energy is continuously reducing the use of SF₆ and accelerating the development of eco-efficient products and solutions as alternative to SF₆.

Over time, we have been successful in continuously increasing the voltage levels of the eco-efficient switchgear portfolio, supporting the energy transition by minimizing losses and increasing efficiency.



Life cycle assessment for environmental performance

EconIQ high-voltage portfolio: Advancing a sustainable energy future for all

Game-changing technology that eliminates SF₆ with reliable and scalable solutions for the lowest carbon footprint.



Significant reduction in carbon footprint throughout the total lifecycle



Future proof
Compliant to future environmental regulations



Over a decade of innovation in eco-efficient technologies



Longest field experience worldwide



Based on reliable technology for gas circuit-breaker



Scalable to ultra high-voltage for both interruption and insulation

Replacing 1 m³ of SF₆ at pressure of 5 bar¹⁾ is the equivalent to



400 passenger vehicles taken off the road for one year²⁾

¹⁾ Typical pressure within a gas-insulated switchgear (GIS) | ²⁾ Based on assumption a car emits 19 kg CO₂ equivalent per 100 km and drives 10,000 km per year

World's longest field experience in eco-efficient high-voltage technologies

Pilot live tank breaker LTA, 145 kV in 2010



World's first eco-efficient GIS 170 kV in 2015



EconIQ: Eco-efficient portfolio for sustainability, proven to deliver exceptional environmental performance

We are enabling customers and the industry as a whole to reduce carbon footprint and rapidly transition to eco-efficient alternative solutions.



EconIQ live tank breaker (LTA) and disconnecting circuit-breaker (DCB) 72.5 kV

Based on Hitachi Energy's well-proven high-voltage breaker technology, the LTA offers excellent switching performance within the same space requirements. The eco-efficient LTA is also available as a disconnecting circuit-breaker where the disconnecting function is integrated into the breaker.



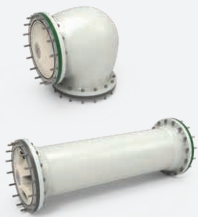
EconIQ live tank breaker – LTA, 145 kV

Based on the well-proven high-voltage breaker technology, the LTA offers excellent switching performance within the same space requirements. It provides our customers with the highest reliability and the same product footprint while reducing the environmental impact.



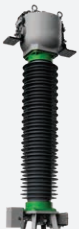
EconIQ gas-insulated switchgear (GIS) ELK-04, 145 kV

The EconIQ GIS ELK-04, 145 kV is the most robust SF₆-free gas-insulated switchgear. It combines a low carbon footprint, superior reliability and low lifecycle costs in a flexible product layout.



EconIQ gas-insulated line (GIL) ELK-3, 420 kV

The EconIQ GIL for gas-insulated switchgear (GIS) ELK-3, 420 kV enables significant reduction of SF₆ gas compared to standard layouts. The modular design of the product allows multiple configurations and substitution of the insulation gas with an eco-efficient alternative.



EconIQ current transformers 145 kV and 170 kV

The EconIQ gas-insulated current transformer is 100% as reliable as the conventional solution based on SF₆ and is scalable to higher voltage levels and various instrument transformer applications.

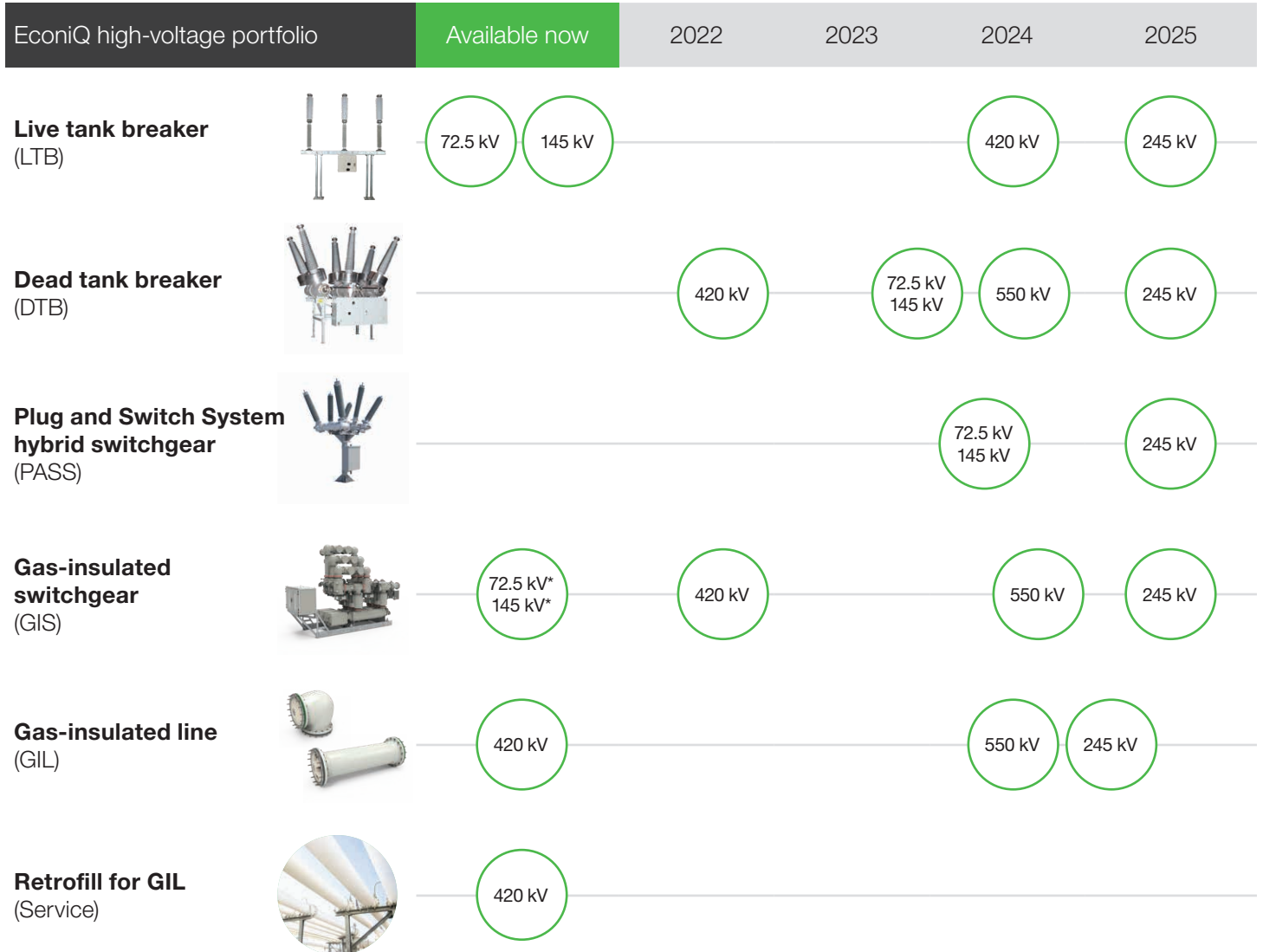


EconIQ retrofill for GIL ELK-3, 420 kV

EconIQ retrofill uses an eco-efficient gas mixture to replace SF₆ in installed high-voltage GIL. This can be done with minimum changes to existing equipment while ensuring high environmental and lifecycle performance of the equipment.

EconIQ high-voltage portfolio roadmap

A game-changing technology that eliminates sulfur hexafluoride (SF₆) with reliable and scalable solutions for the lowest carbon footprint.



Eliminates CO₂ equivalent emissions related to the insulation gas

Significant reduction of CO₂ footprint throughout the total lifecycle

100% as reliable as the conventional solution while reducing equipment size, materials and carbon footprint throughout the product lifecycle.

*Compact solution and 60 Hz will be available in 2023 and 2024.

This roadmap contains forward-looking information which are based on our current best expectations, estimates and projections. We reserve the right to make changes without prior notice. ABB is a registered trademark of ABB Asea Brown Boveri Ltd. Manufactured by/for a Hitachi Energy company.

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