

ABB Medium Voltage Days MEA

How ABB makes a difference

Examples from the Oil & Gas Segment

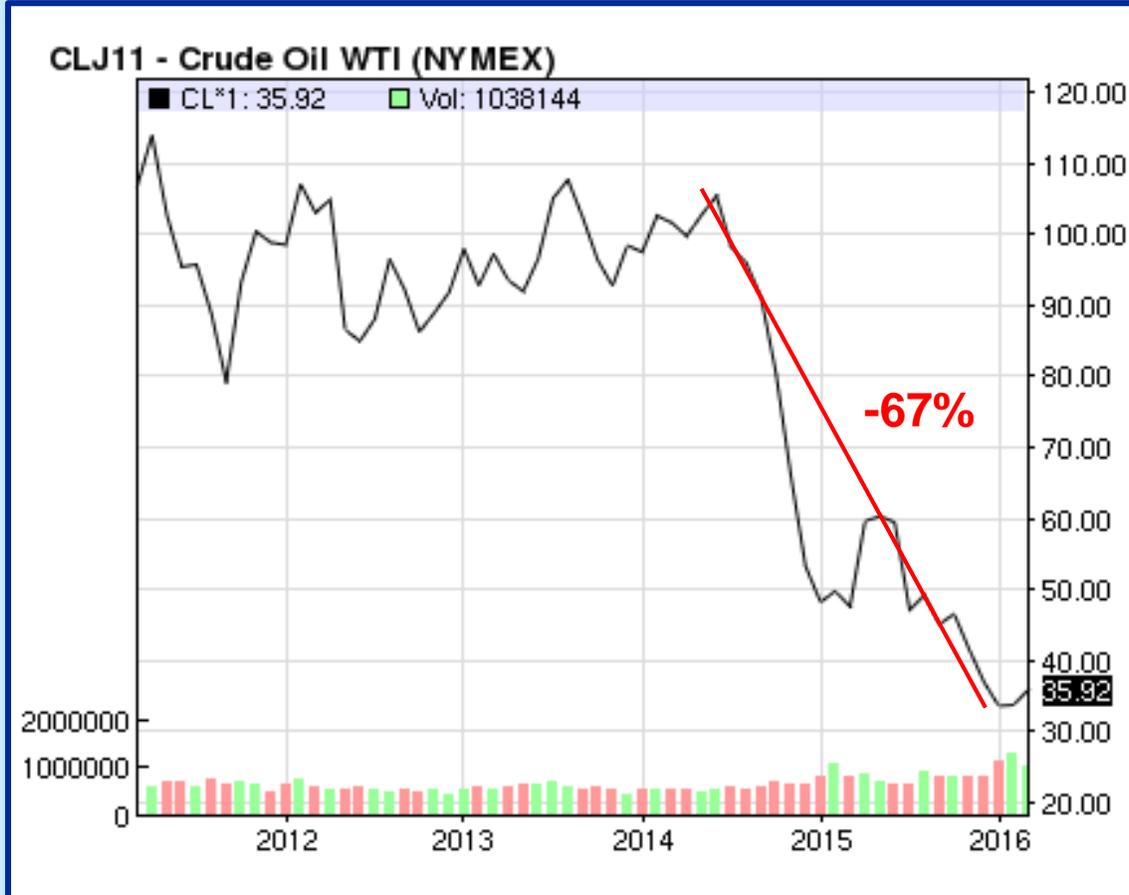
How ABB makes a difference

Examples from the Oil & Gas segment

- Speaker name Thomas Schmidtchen
- Speaker title Global Segment Manager – Oil & Gas
ABB Medium Voltage Products
- Company name ABB Inc.
- Location Houston, Texas, USA

Motivation

Why speak about Oil & Gas?



Is it time to challenge the way we've been doing things?



Is it time to look for smart & efficient solutions?



Do we want to compromise safety or reliability?



How ABB makes a difference

Examples from the Oil & Gas Segment – Overview



What ABB does

- ABB's value proposition for electrification infrastructure



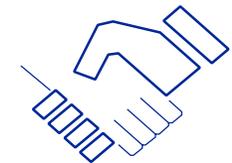
How ABB makes a difference

- Safe & reliable, smart & efficient solutions



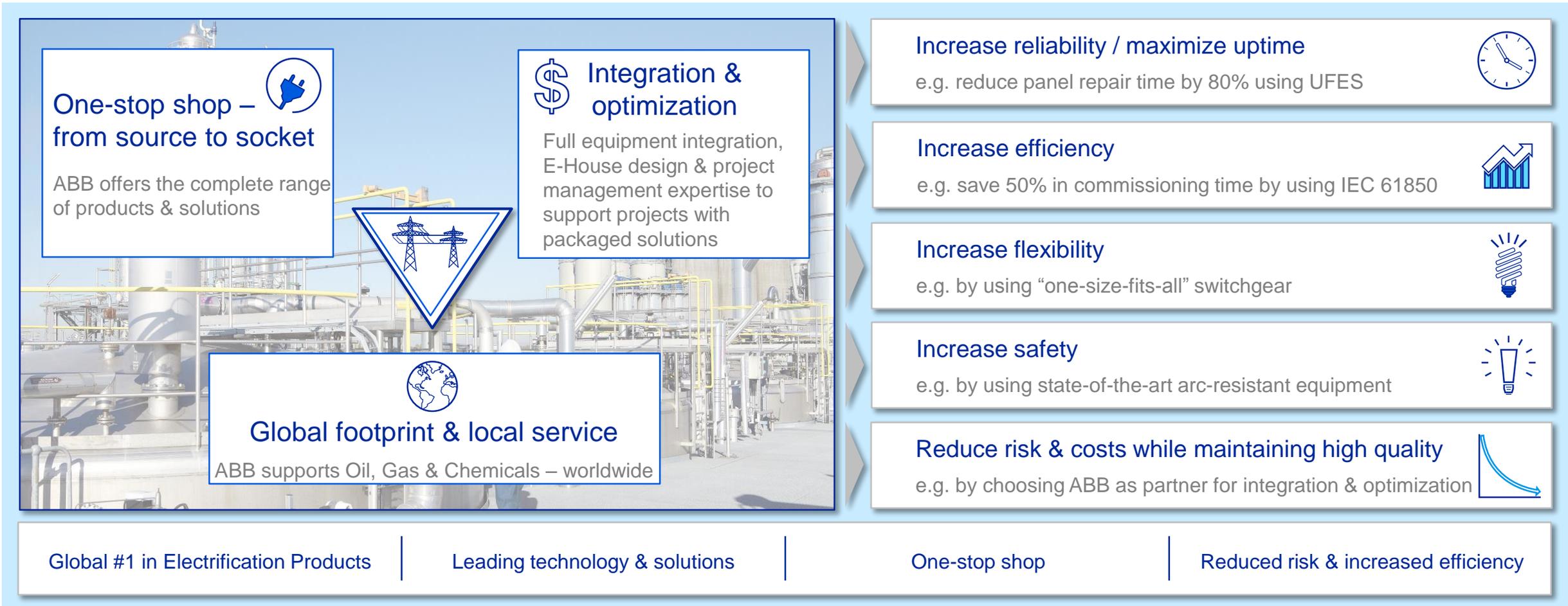
Project references

- Where ABB helps customers increase their productivity while not compromising safety



ABB's Value Proposition

Complete Electrification in Oil, Gas & Chemicals

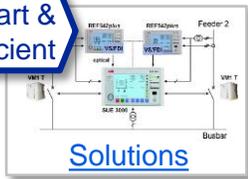


ABB's Value Proposition

Products, Solutions & Services for the Electrification Infrastructure

Complete range of products

Smart & Efficient



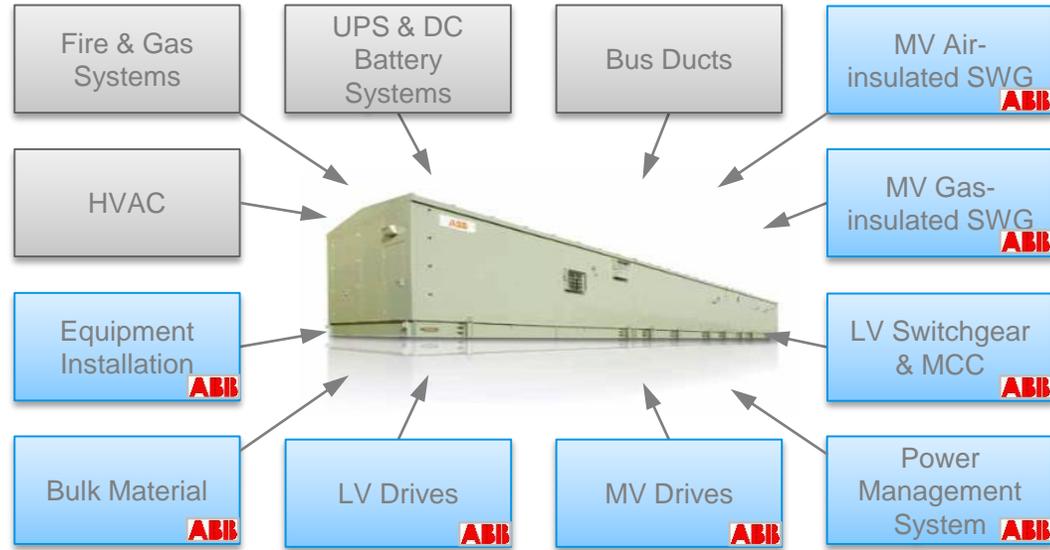
Safe & Reliable



Strong Basis



Full E-House integration & project management



Life-cycle services

- Installation & Commissioning
- Spares & Consumables
- Maintenance (Asset Management Strategies, Condition Monitoring)
- Training
- Extensions, Upgrades & Retrofits
- Replacements
- End of life Services
- Service Agreements



Global #1 in Electrification Products

Leading technology & solutions

One-stop shop

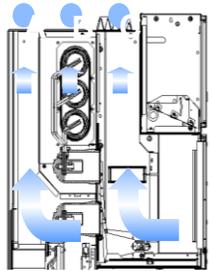
Reduced risk & increased efficiency

How ABB makes a difference

Safe & Reliable – Example: Active Arc Mitigation

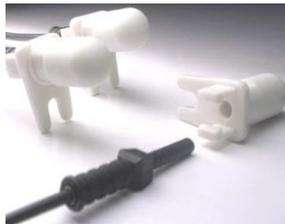
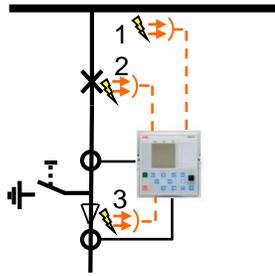
Multiple solutions for highest personnel & equipment safety

With I_{th} -Limiter



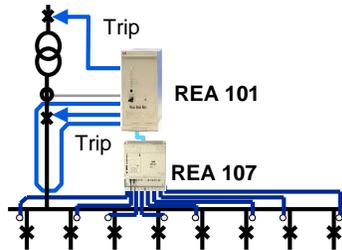
arc cleared in
~ 70... 90ms

Relion® Relay



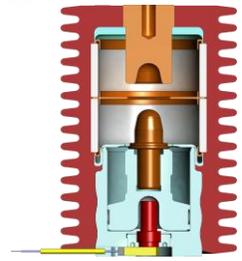
arc cleared in
~ 60... 90ms

With REA®



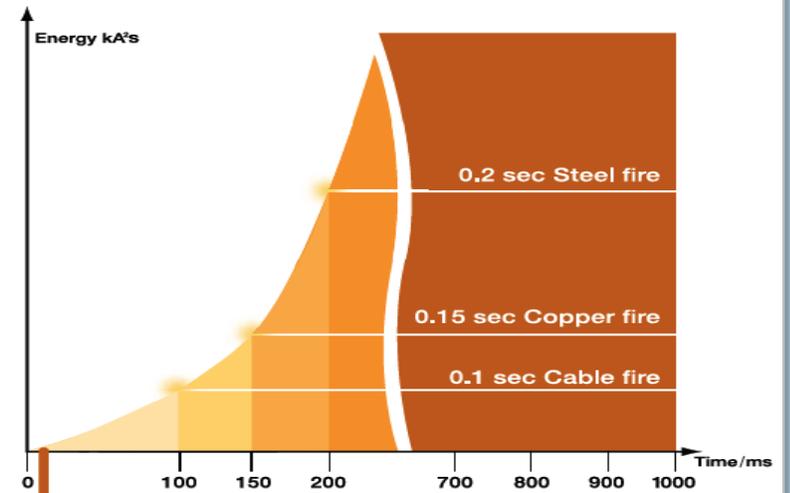
arc cleared in
~ 60... 80ms

UFES® + REA®



arc cleared in
< 4ms

Arc clearance time is the key



Vs.



Min. repair & service, maximized process uptime!

How ABB makes a difference

Safe & Reliable – Example: Distribution Automation Solutions

Where ABB came from



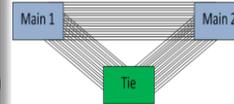
ABB today: Relion®



Traditional ☹️



E.g. Automatic Transfer Scheme (ATS)

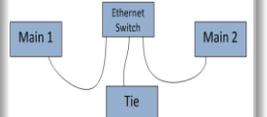


- Single wire pulling & testing one-by-one
- No loss of communication on detection

Relion® with IEC 61850 ☺️



E.g. Automatic Transfer Scheme (ATS)



- ✓ Factory pre-tested
- ✓ More than 2x the speed
- ✓ Increased reliability
- ✓ Reduced time & costs

One product family

One look & feel

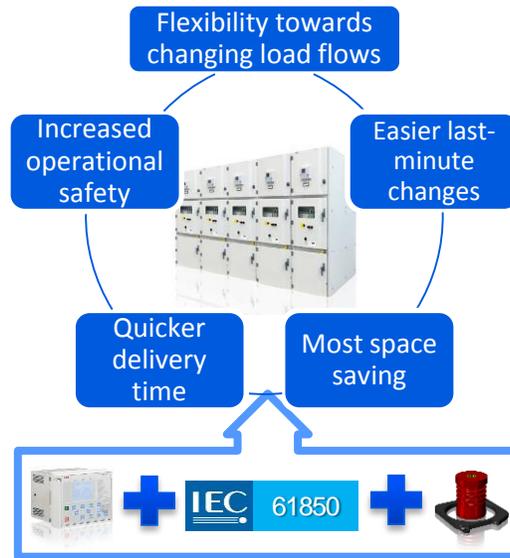
Native IEC 61850

+500.000 relays in operation

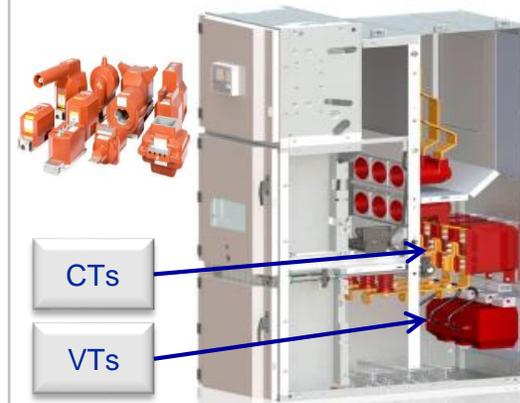
How ABB makes a difference

Smart & Efficient – Example: Digital Switchgear

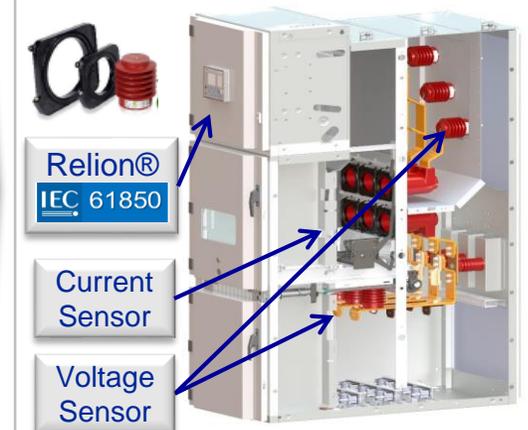
The “Digital” concept



Traditional switchgear



Digital switchgear



“One-size fits all”

Linear slope, no saturation

Quicker engineering,
installation & commissioning

Increased safety

Reduced size & weight

How ABB makes a difference

References for Safe & Reliable, Smart & Efficient Solutions

International Oil Company in Oman



Ultra Fast Earthing Switch

Min. repair & service, max. process uptime!

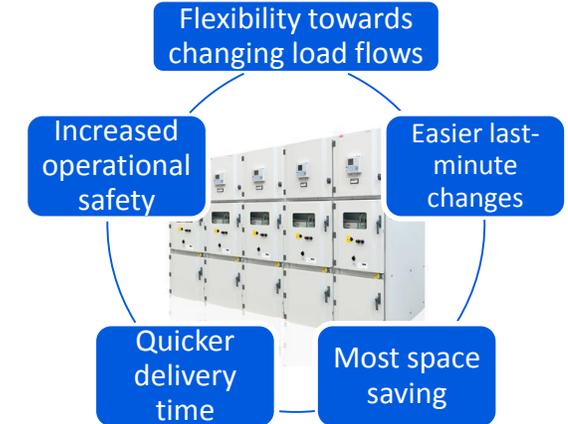
International Oil Company in UAE



ABB Relion® relays
with IEC 61850 GOOSE

Increased speed & reliability,
reduced time & costs

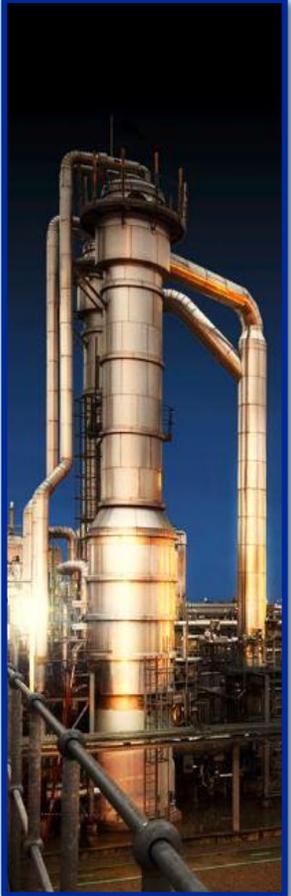
National Oil Company in UAE



Digital Switchgear

Unique flexibility (“One-size fits all”),
unique savings (time, costs, space, weight, ...)

Questions & Answers



Do you think that ABB can help increase efficiency, while not compromising safety?

Do you think that ABB can help master the challenges of the future?

Do you think ABB is a partner of choice for Electrification Infrastructure?



Power and productivity
for a better world™

