Understanding Electric Actuation and its Impact on Subsea Projects

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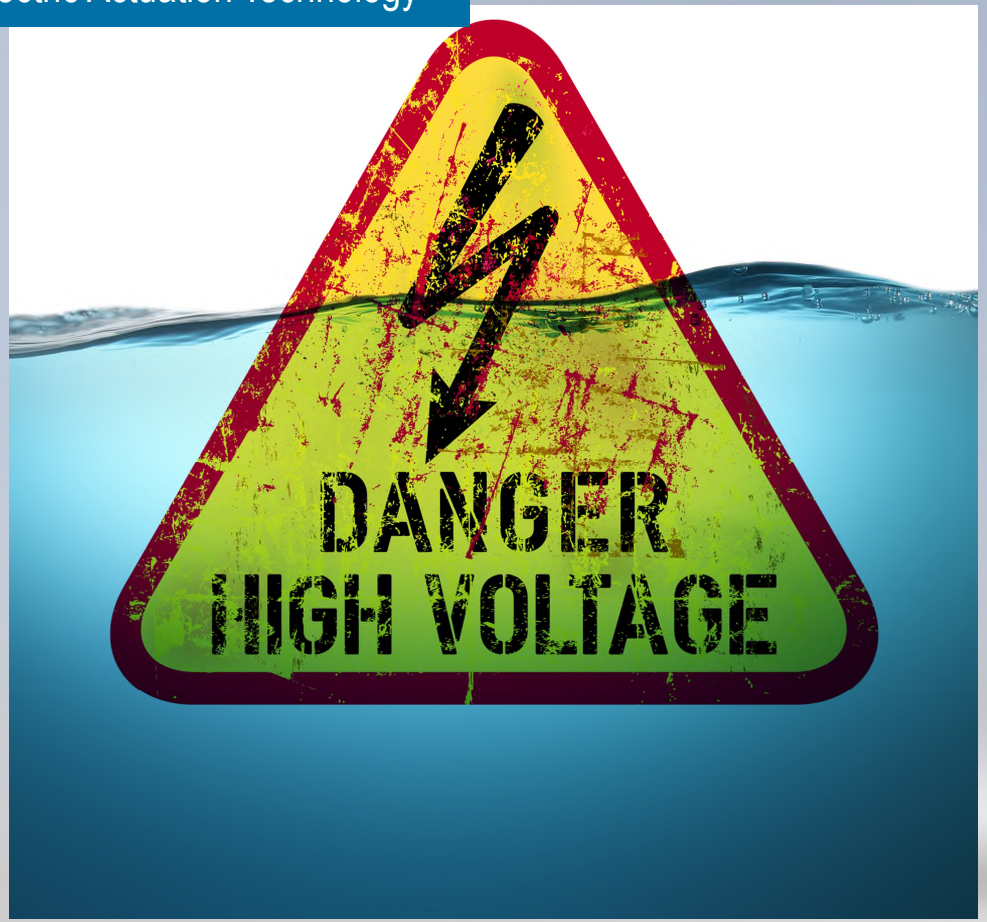
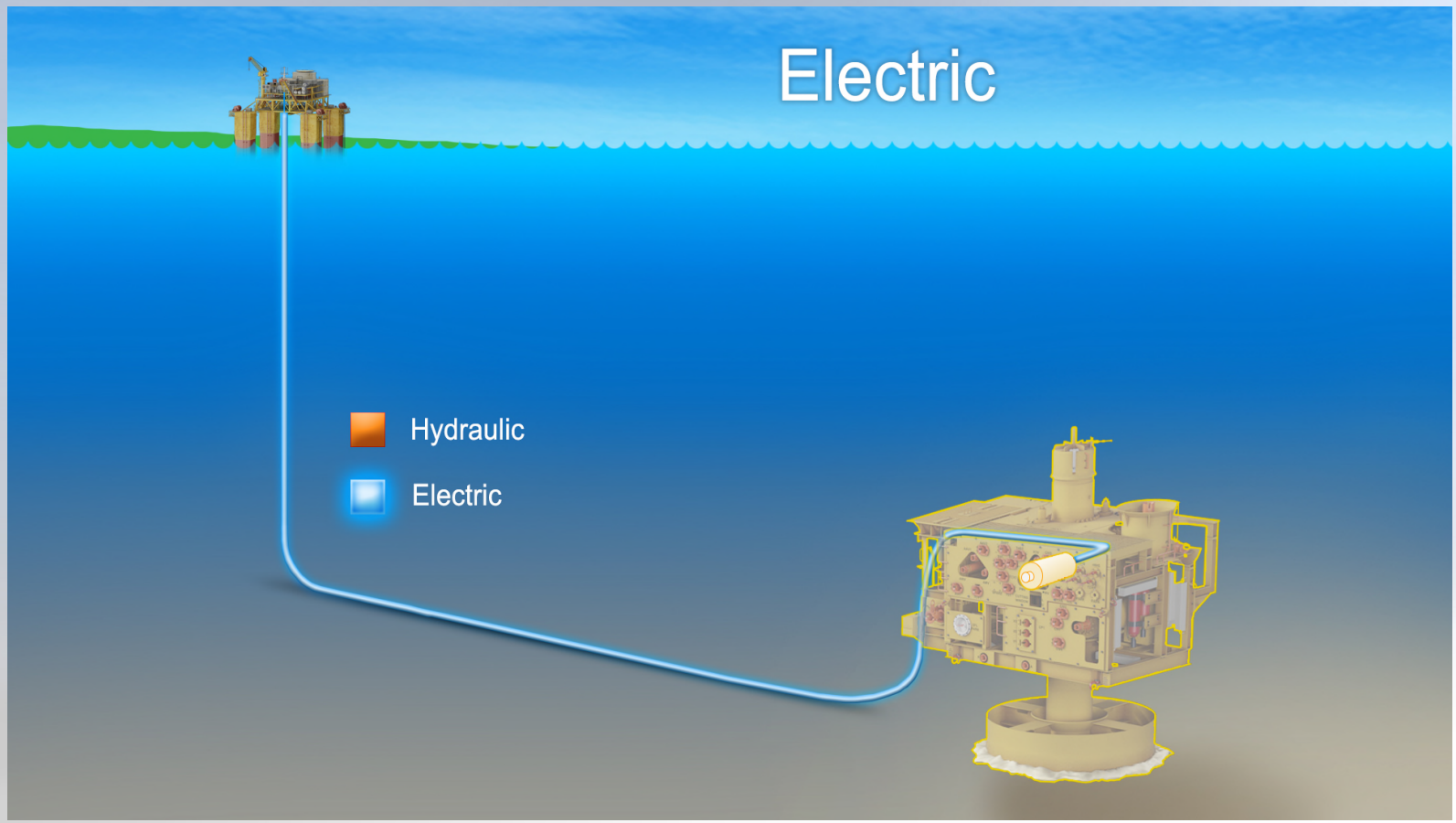
A Schlumberger Company



Electricity and Water DO NOT mix

Electric Actuation Technology

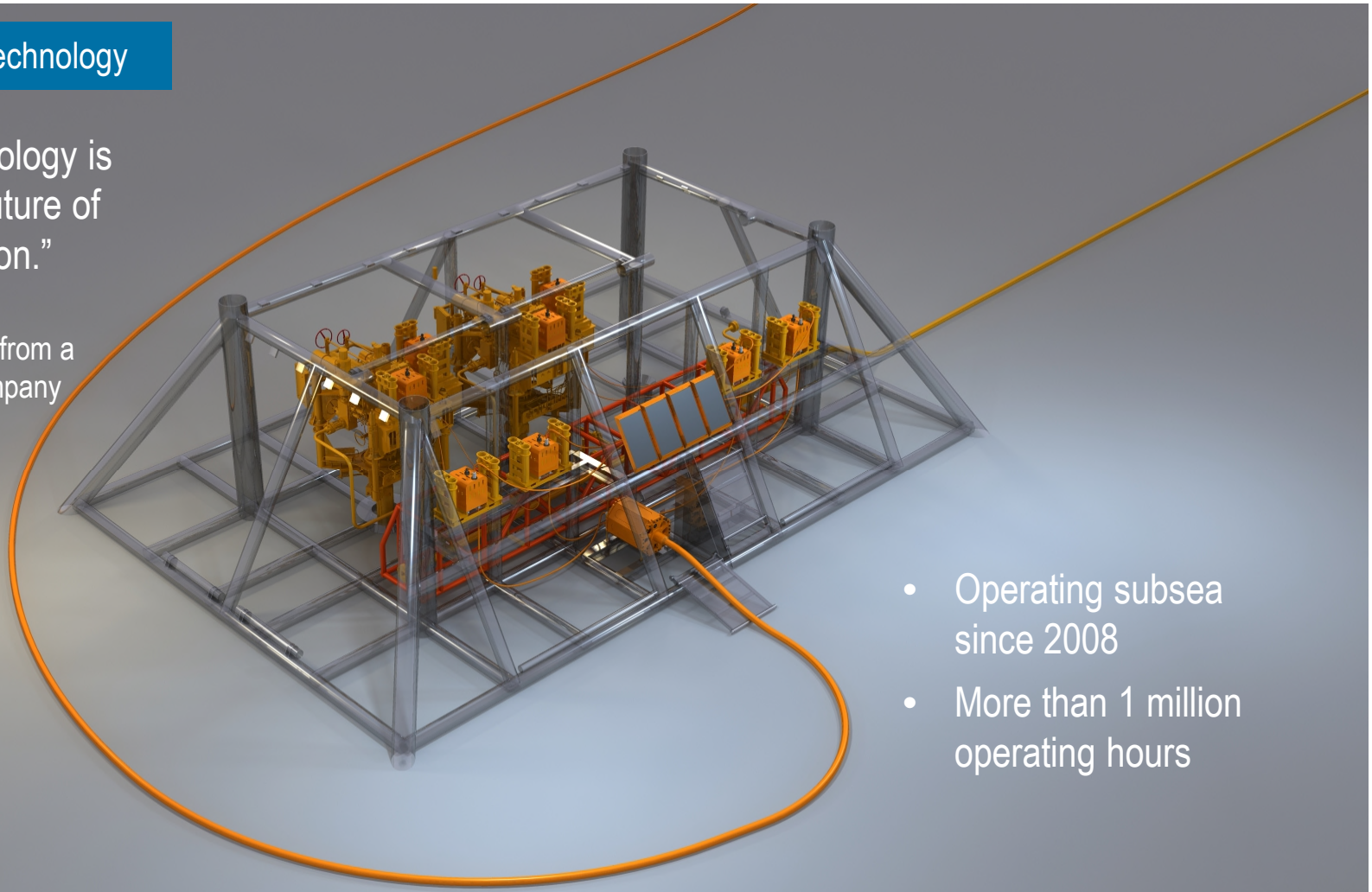
Actuation Types



Electric Actuation Technology

"Electric Technology is definitely the future of subsea actuation."

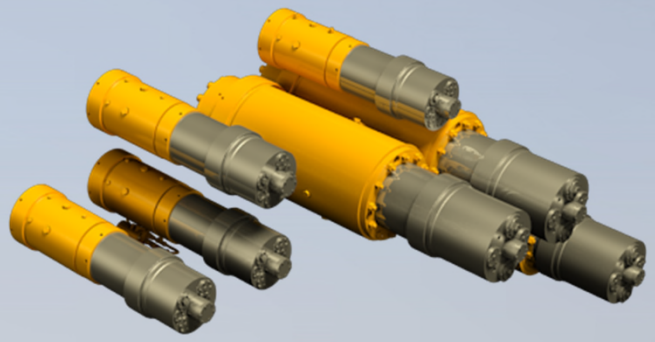
- President of E&P from a major operator company



- Operating subsea since 2008
- More than 1 million operating hours

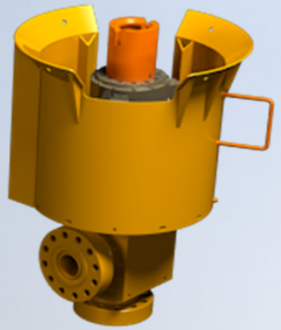
Electric Actuation Technology

Electric Actuators

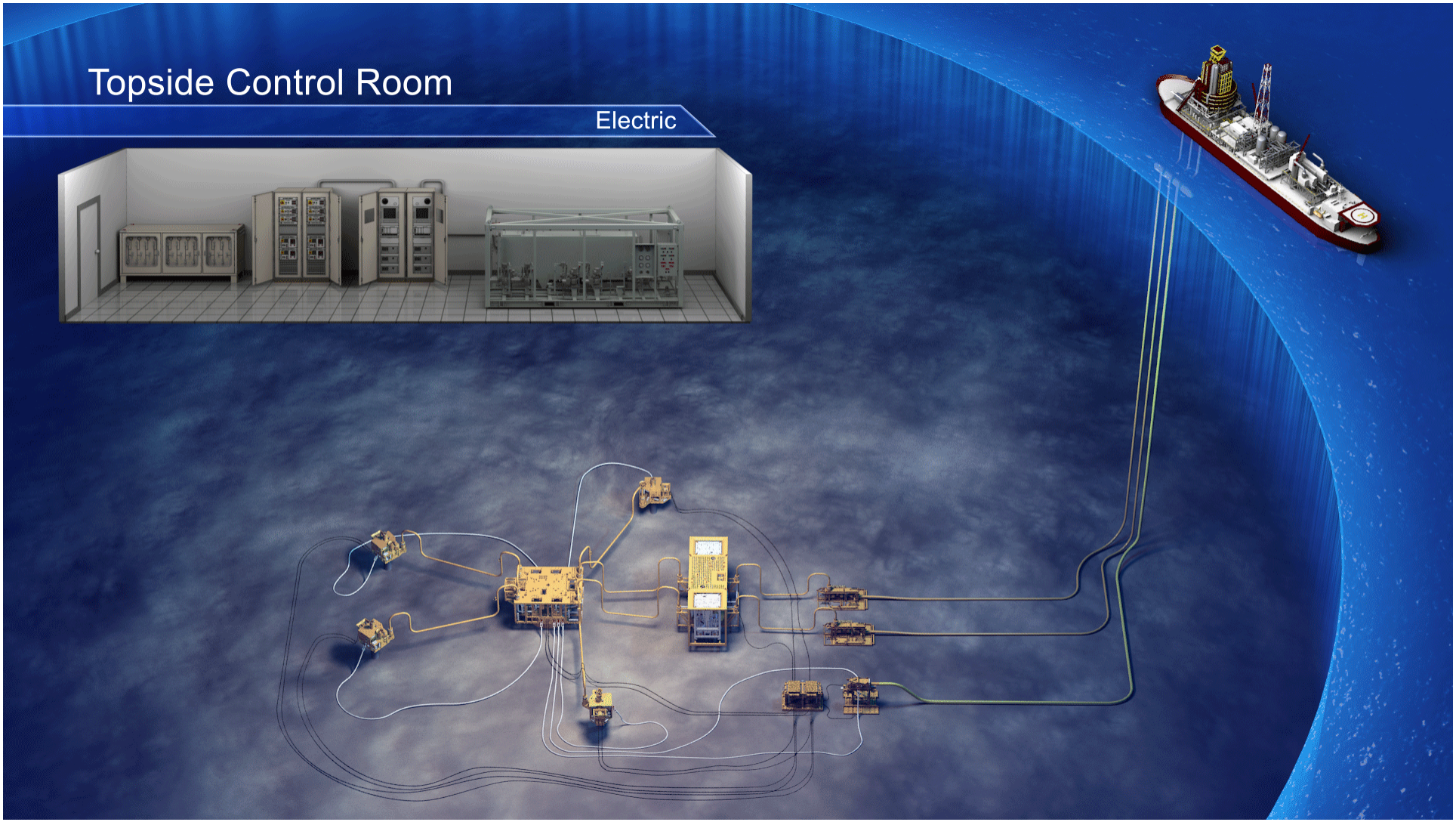


Linear

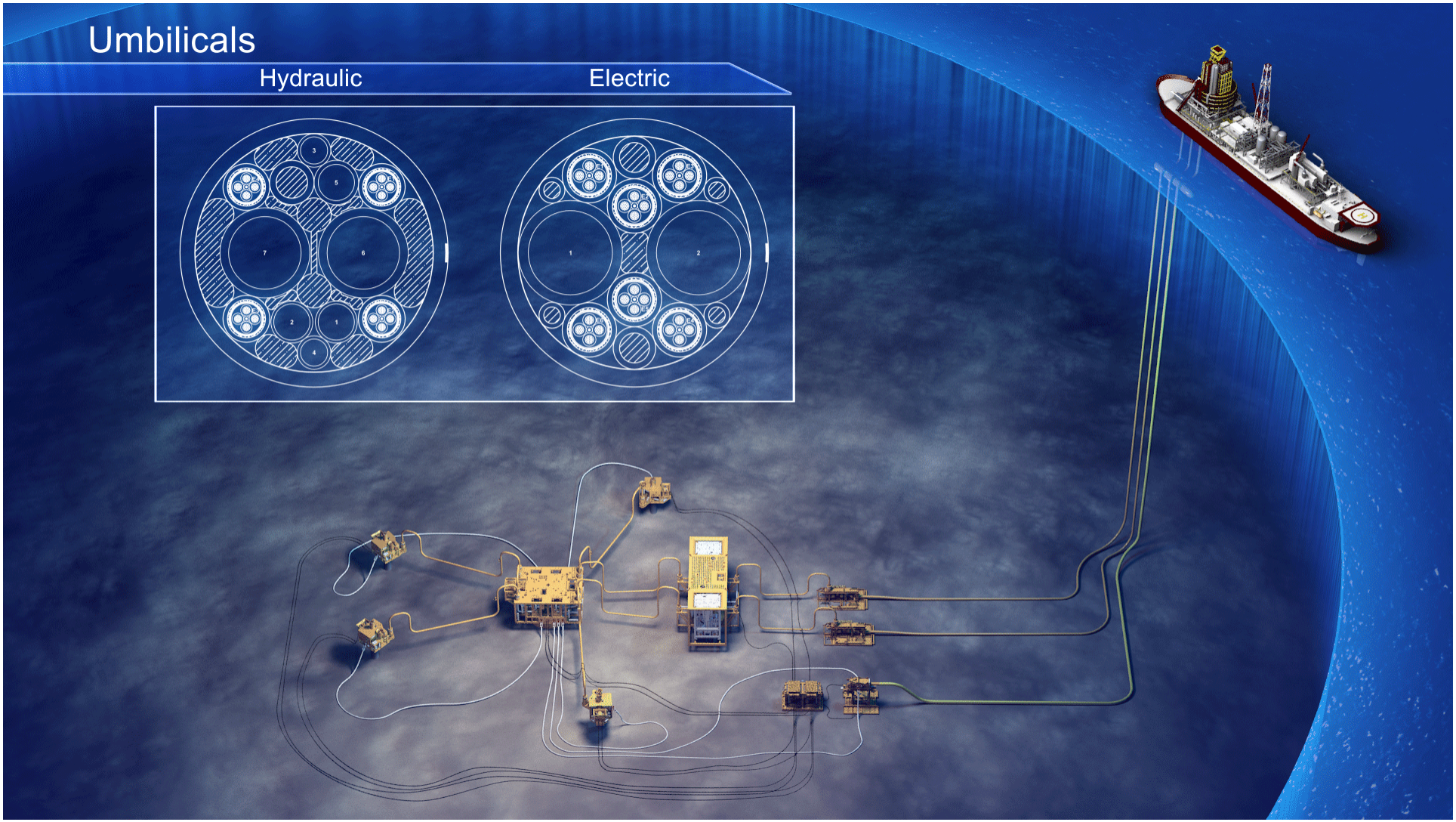
Rotary

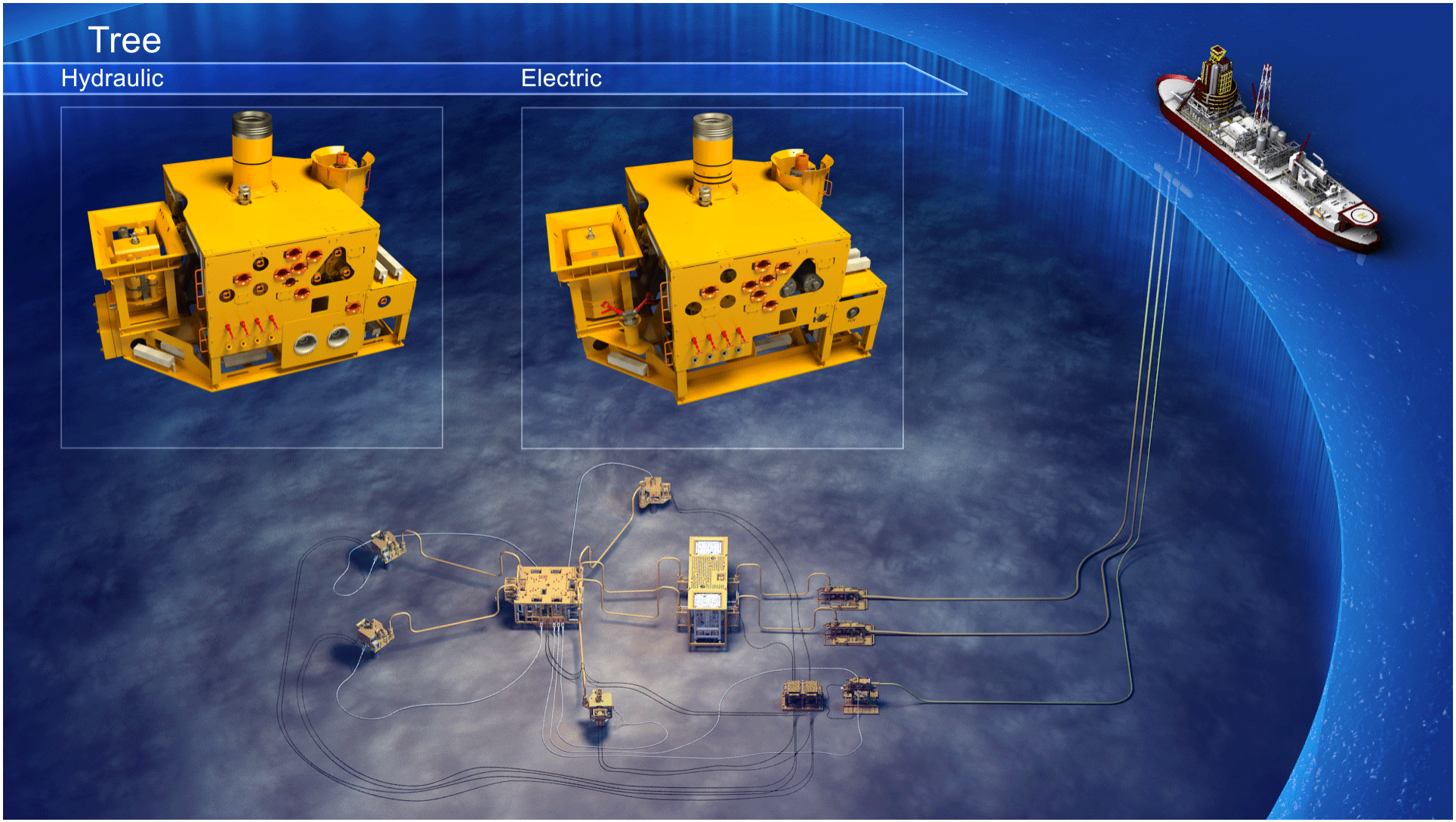


Choke


Topside Control Room
Electric

Umbilicals

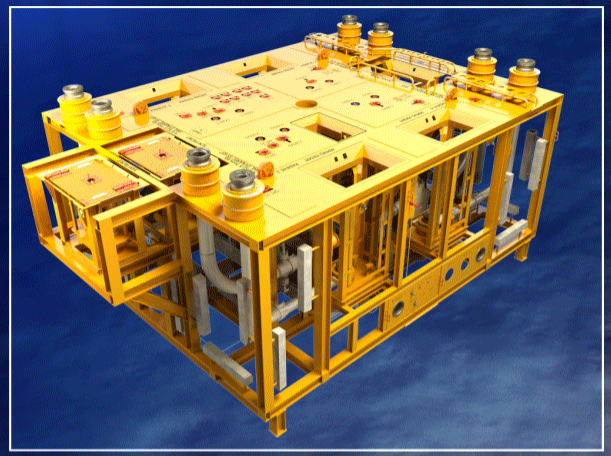


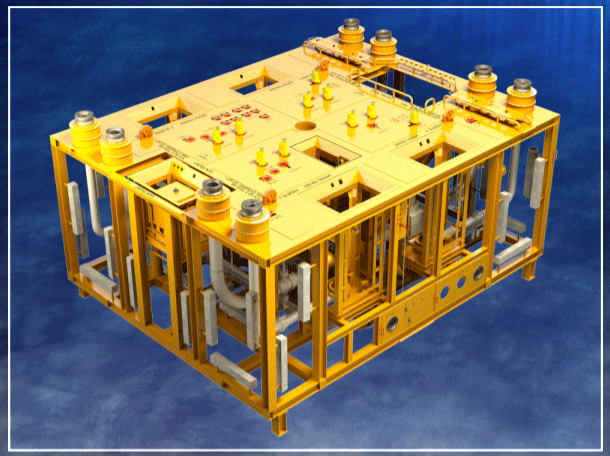

Tree
Hydraulic
Electric

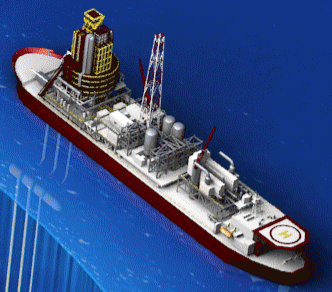
Manifold

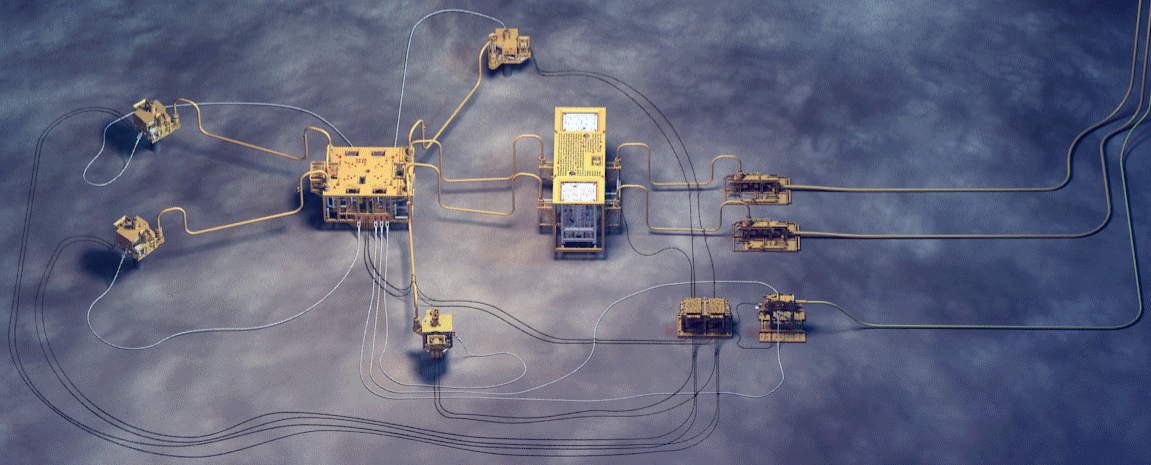
Hydraulic

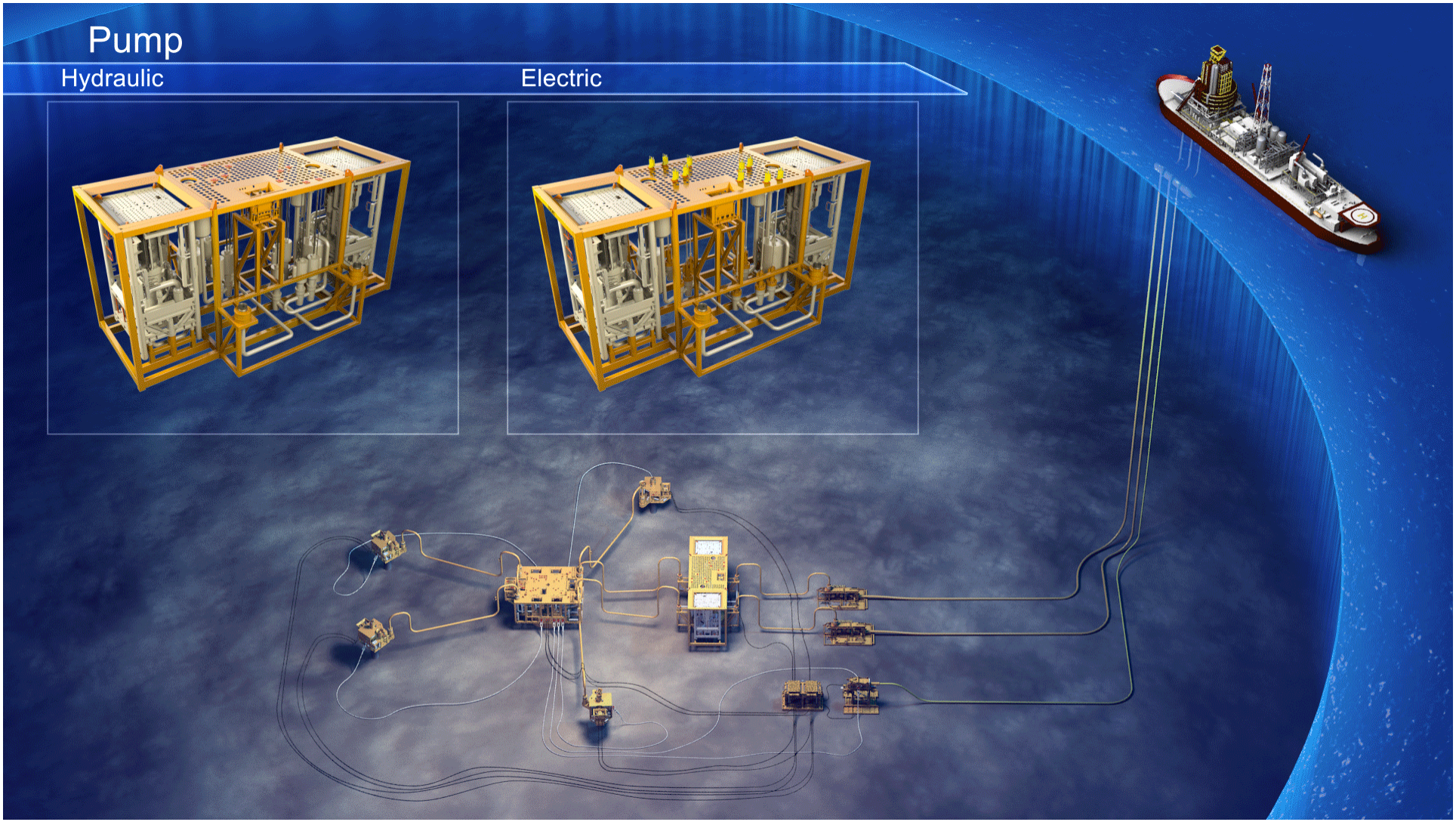
Electric







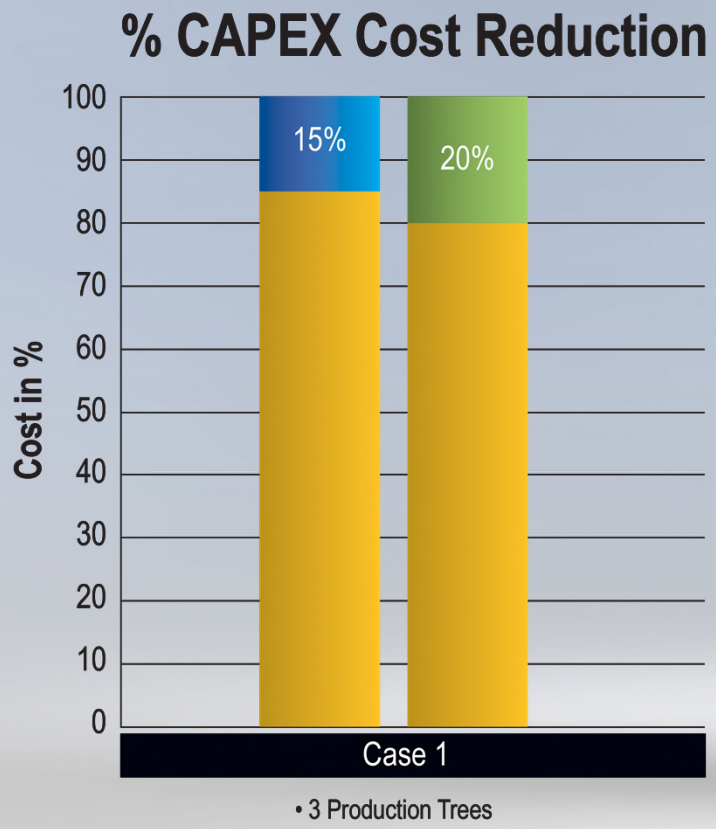


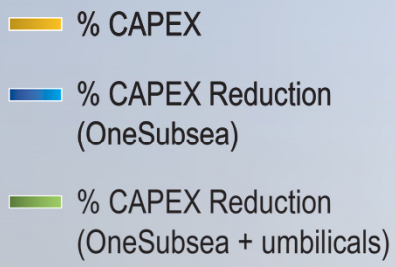

Pump
Hydraulic
Electric

Electric Actuation Technology

Key Benefits

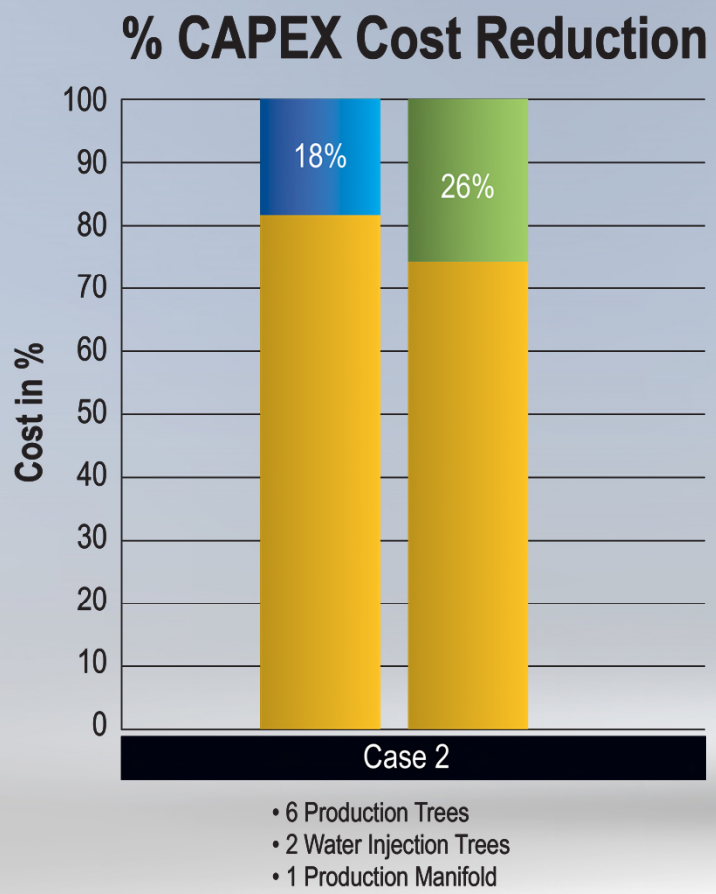
Electric Actuation Technology





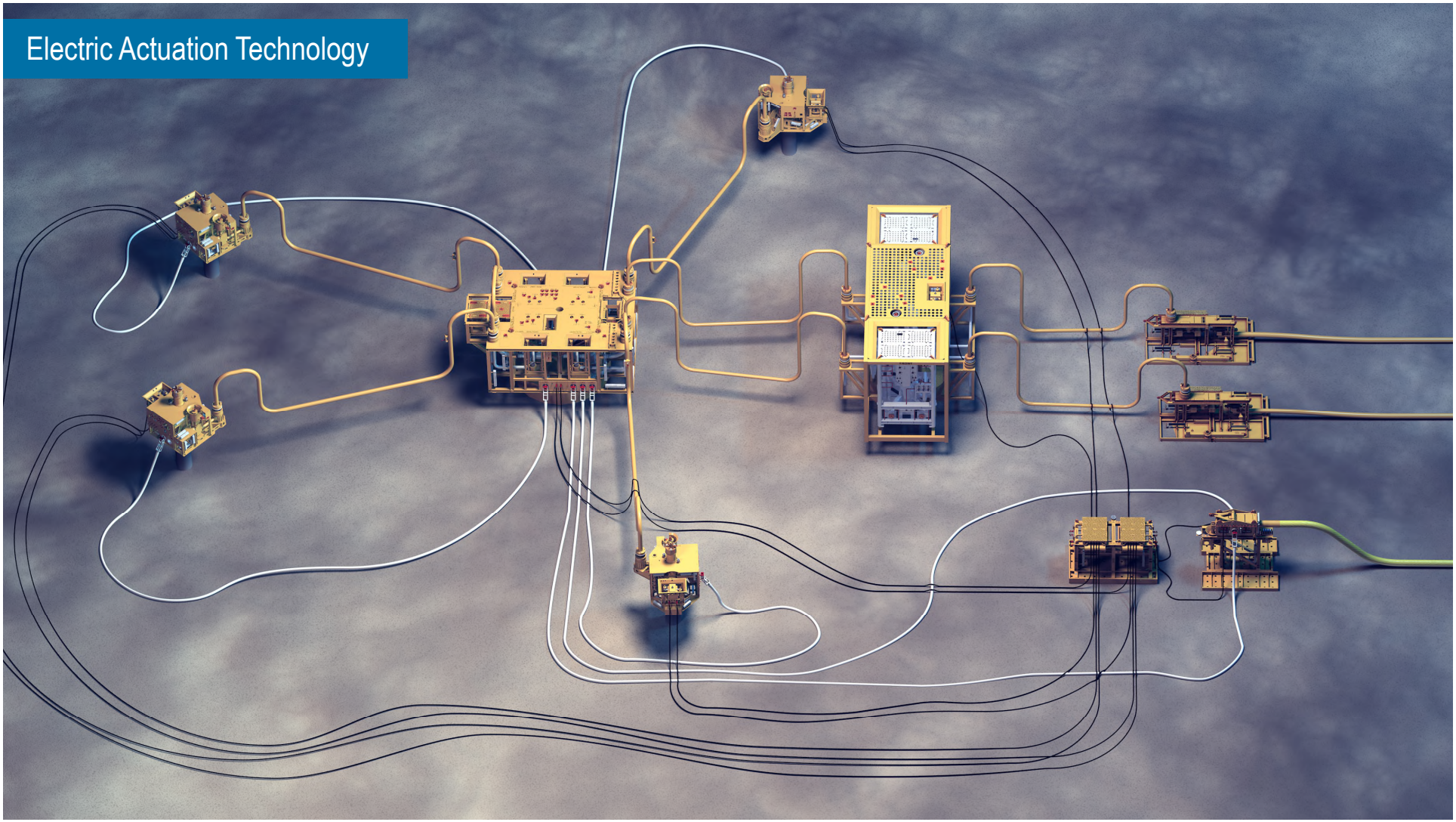
OPEX savings of 7MM over the life of the field

Electric Actuation Technology



OPEX savings of 16MM over the life of the field

Electric Actuation Technology



Electric Actuation Technology

CAPEX and OPEX savings

Increased functionality

Incremental or full system implementation

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