

Plant Operation Support



Providing high-level engineering support to operators around the world for over 40 years

We accompany operators in every aspect of their projects with an uncompromising approach to safety. Our independent experience with equipment vendors and global regulatory systems benefits our customers to optimize the safety and cost-effectiveness of their plants.

We are the unique engineering company supporting constantly the Belgian utility to operate its seven nuclear reactors.

We have achieved world-class results for the seven Belgian Pressurized Water Reactors (PWR), as can be inferred from our record low dosimetry and execution time during the steam generators' replacement. We have successfully carried out post Fukushima safety upgrades and have first-hand experience with two long term operation projects in Belgium.

Our approach

- Establish long-term partnerships with customers
- Help them meet their objectives of competitiveness, reliability and safety
- Develop innovative technological solutions which combine economic and technical performance

Client benefits

- Full range of nuclear and non-nuclear engineering expertise
- Project management at every stage of client's project
- Role as Architect Engineer (EPCM), Owner's Engineer or Consulting Engineer according to client's needs
- Multi-skilled project teams

Our services

- Plant Modifications
- Plant Life Extension
- Ageing Management
- Safety Assessment
- Equipment Reliability
- Core & Fuel Studies
- In-Service Inspection
- Civil Structure Monitoring & Upgrading



Benefit from our proven operational support at all stages of your projects



SOME REFERENCES PLANT OPERATION SUPPORT

Belgium - ENGIE Electrabel - Owner's Engineer for the Steam Generator Replacement of all Belgian units, with 8 to 10% power uprate on 5 out of the 7 units - 1993-2009

Belgium - ENGIE Electrabel - Owner's Engineer & EPCM Services for major upgrades and Long Term Operation of Tihange 1 and Doel 1 & 2 - 2009-2019

Belgium - ENGIE Electrabel - Architect Engineer (EPCM) mission for design and construction of site protection measures against external flooding - 2010-2015

Belgium - ENGIE Electrabel - Architect Engineer (EPCM) mission for design and construction of the extension of the ultimate back-up systems of Tihange 1 - 2010-2020

Belgium - ENGIE Electrabel - Owner's engineering for the design and construction of a full scope simulator of Tihange 1 - 2011-2016

Belgium - ENGIE Electrabel - Engineering, Contract Management and Site Supervision for the replacement and renovation of the fire protection system in the three units of the Tihange NPP - 2007-2016

Belgium - ENGIE Electrabel - Full Engineering Support mission for the replacement of the Reactor Vessel Closure Head with new

Control Rod Drive Mechanisms of Tihange 3 and Doel 4 NPP - 2015

France - EDF - Primary Elbows Replacement for 900 MWe French nuclear fleet. Civil and Mechanical Design Studies, Primary Loop Calculation, Qualification - 2018-2026

France - EDF - Multidisciplinary design framework contract for French nuclear fleet. Mechanical, I&C and electrical, NSSS and Civil engineering, project management - 2018-ongoing

South Africa - ESKOM - Koeberg NPP - Comparison and reconciliation report between ASME and RCC-M codes for the manufacturing of a reactor vessel head - 2005-2007

South Africa - ESKOM - Koeberg NPP - Engineering Support Services for the Steam Generator Replacements - 2015-ongoing

South Africa - ESKOM - Koeberg NPP - Design of the Impressed Current Cathodic Protection for Units 1&2 - 2021-2025

Slovenia - NEK - Krsko NPP - Engineering Support for Periodic Safety Reviews - 2021-2022

Netherlands - EPZ - Borssele NPP - Owner's Engineer Mission for the I&C Modernization Program in the frame of the Borssele NPP extended operations project - 2012-2017

Sweden - VATTENFALL - Ringals NPP - Design

Basis of the Component Cooling Water System and Spent Fuel Pit Cooling System - 2012-2013

Sweden - VATTENFALL - Ringals NPP - Post-Fukushima robustness enhancement feasibility study - 2013-2014

Armenia - Metsamor NPP - Technical Assistance for the Validation of the Emergency Operating Procedures - 2003-2005

Armenia - Metsamor NPP - Owner's assistance for the implementation of the Stress Tests Self-Assessment - 2012-2014

Russia - Kalinin NPP - On-site assistance for general operational assistance, improvement of the nuclear safety culture and implementation of plant improvement projects - 1993-2009

Ukraine - South Ukraine NPP - Development of Severe Accident Management Guidelines and support for their implementation - 2005-2010

South Korea - KEPSCO E&C - Ulchin 1&2 NPP - Technical Consulting Services for Steam Generator Replacement & Power Uprate - 2009-2013

Argentina - Nucleoelectrica Argentina SA - Fatigue evaluation of the surge lines in the framework of the Atucha 1 NPP LTO - 2013-2014