



TRACTEBEL

ENGIE

New Build



Providing high level new build engineering and consulting services from development, design and construction to commissioning

We have over 60 years of nuclear experience in new build projects. Thanks to the expertise of our 1000 engineers that covers all technical skills, we support nuclear players in their new build projects worldwide and across all reactor technologies.

We are able to assist investors, regulatory offices, governmental commissions, future operators, designers and constructors from design to commissioning.

For more than 40 years, our missions in civil engineering have ranged from the design of nuclear buildings and structures, and the assessment of concrete structures' long-term behaviour to training courses. In the field of nuclear reactors our missions cover a wide range of projects, including EDF's Pressurized Water Reactors, EPR, ATMEA1, Jules Horowitz Reactor, ASTRID, ITER, turbine generator pedestals, and post-Fukushima buildings.

Our approach

- Close partnership with our customers
- Mission of Architect Engineering, Owner's Engineering, Consulting Engineering or Civil Engineering Designer according to customer's needs
- Active monitoring of technological and legislative developments of Gen III, Gen IV, research reactors and new generation of reactors

Our added value

- Full range of nuclear and non-nuclear engineering expertise in house
- Top-notch civil engineering expertise
- NPP operation experience & safety culture

Main Services

- Country site survey
 - Geotechnical & seismic analysis
 - Licensing & permitting
 - Equipment qualification
 - Civil engineering
 - Airplane crash studies
 - Construction & commissioning oversight
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Internationally recognized expertise in civil engineering for nuclear buildings, with a particular know-how in reactor building design



SOME REFERENCES NEW BUILD

France - all NPPs | Civil works designer for Nuclear Island, STG supports and cooling towers - since 1975

France - EPR Flamanville 3 (EDF) | Civil works designer and drawings of the Nuclear Island, turbine generator pedestal, and various buildings of BoP - 2006-2018

France - Ultimate Safety Building (EIFFAGE and EDF) | Member of EPC consortium for a post-Fukushima building in Flamanville NPP. In charge of multidiscipline design, project management and 3D synthesis - 2018-2020

France - VERCORS mockup (EDF) | Designer, drawings and construction oversight of a 1/3 scale prestressed concrete inner containment of French 1300MW PWR, to simulate ageing and severe accident conditions - 2012-2016

France - Jules Horowitz Reactor (EDF-CEA) | Civil works designer from feasibility to detailed design of a seismically base-isolated research reactor - 2002-2016

France - ASTRID Project (Bouygues) | Civil engineering and technical assistance services to Advanced Sodium Technological Reactor for Industrial Demonstration - 2012-2017

France - I TER Project | Various contracts incl. Tokamak civil design review; Civil Engineering & Construction oversight on-site for nuclear and conventional buildings; Evaluation of tenderers for seismic isolation; Hot Cell Complex Conceptual multi-disciplines conceptual design; TAPB Building design - since 2011

United Kingdom - EPR Hinkley Point (EDF/Edvance) | Civil works designer and drawings of the Nuclear Island, from optimization studies to execution - 2011-2022

United Kingdom - Moorside Project (NUGEN) | Full Owner's Engineering mission for 3 AP1000 to be built, including technology assessment and site characterization - 2014-2017

Belgium - Belgian Nuclear Fleet (ENGIE Electrabel) | Architect-Engineer of the 7 nuclear units

Belgium - Myrrha-Minerva accelerator (SCK CEN) | Architect Engineering Mission for the design of the Balance of Plant including buildings and utilities - 2019-2026

Netherlands - PALLAS Project | Owner's Engineer for a multipurpose medical and research reactor. Licensing support and EPCM contract oversight - 2015-2024).

Brazil - Angra 3 (BNDES) | Due Diligence and Engineering Advisory Mission - 2021 - 2023

Turkey - SINOP Project (JAPCO) | Owner's Engineer mission for Atmea1 NPP units to be built, incl. Site Evaluation and Characterization studies - 2015-2018

Russia - VVER TOI 1200 | Training of engineers to prestress

concrete calculation methods and tools. Assistance to design of the containment building for Atomergoproekt - 2015-2018

Jordan - NPP Project (JAEC) | Country site survey - site selection & characterization - 2009-2013

Saudi Arabia - NPP Project (KACARE) Country site survey - Studies for the characterization of sites against international benchmarks for/with Assystem - 2019

China - EPR Taishan (AREVA) | Civil works designer and drawings for nuclear island buildings, including inner containment. Technical assistance on the construction site - 2008-2015