



More than 50 years of nuclear experience

CERNAVODA MAGNOX TIANWAN

KRSKO CHERNOBYL

LATINA **EMBALSE** ANDREEVA BAY
MYRRHA

SANMEN MOCHOVCE

SELLAFIELD DOUNREAY

HINKLEY POINT **CAORSO** **ITER**

IGNALINA COVRA HABOG

SUPERPHENIX SALUGGIA



Who We Are

Ansaldo Nuclear is the brand name under which Ansaldo Nucleare S.p.A (Italy) and the fully owned company Ansaldo Nuclear Ltd (UK) operate, acting as a single enterprise that provides an in-house, fully integrated capability which includes design, engineering, manufacturing, assembly, testing, commissioning, site installation and integrated logistics through-life support of bespoke solutions. These core competencies and capabilities allow Ansaldo Nuclear to offer a broad range of products and services from new build and operational services of nuclear power plant to decommissioning and waste management.

For the UK market only, Ansaldo Nuclear Ltd is also operating in the defence sector.



NUCLEAR POWER PLANTS

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/ Duration	COUNTRY	PLANT / CLIENT / PROJECT	UNITS / POWER (MWe)	PLANT TYPE
2014-2016	China	CLEAR-1 (China LEAd based research Reactor) Client: Anhui Charm Imp.&Exp. Ltd. <ul style="list-style-type: none"> • Design Review of Conceptual Design of CLEAR-1 	10 MWth	ADS (Accelerator Driven System)
2013-2018	Belgium	MYRRHA (Multi-purpose Hybrid Research Reactor for High-tech Applications) Project Client: SCK-CEN <ul style="list-style-type: none"> • MYRRHA Front End Engineering Design (FEED) In consortium with AREVA-TA (Leader) and Empresarios Agrupados Internacional SA	50-100 MWth	ADS
2013-on going	China	Tianwan NPP – Units 3 & 4 Client: Atommasheexport “OJSC” <ul style="list-style-type: none"> • Design and Supply of No. 2 Actuating & Control System Sets for Fuel Handling Machines 	2x1000	VVER
2012-on going	Hungary	Lévai Project Client: MVE Review of the Tender Documentation of the Lévai Project (new NPP selection)	-	-
2008-2016 (*)	China	Sanmen NPP – Unit 1 - AP1000 Containment Vessel Client: Westinghouse Electric Company LLC <ul style="list-style-type: none"> • Design and Supply of Steel Containment Vessel (CV) according to ASME-III Subsection NE, Class MC, including Air Locks & Equipment Hatches, Flued Heads Penetrations • Site Support CV in JV with Mangiarotti S.p.A. (Ansaldo Nucleare Leader)	1.154	PWR
2008-2013	China	Sanmen NPP – Unit 1 - AP1000 Passive Residual Heat Removal Heat Exchanger Client: Westinghouse Electric Company LLC <ul style="list-style-type: none"> • Detailed Design, according to ASME Code Section III, Subsection NB/NF, finalization, fabrication and delivery of the “first of a kind” Passive Residual Heat Removal Heat Exchanger (PRHR-HX). PRHR-HX in JV with Mangiarotti S.p.A. (Ansaldo Nucleare Leader)	1.154	PWR
2008-2013 (*)	CHINA	Sanmen NPP - AP1000 Containment Internal Structures Design Client: Westinghouse Electric Company <ul style="list-style-type: none"> • In-Containment Basemat Design, Rebar 3D Model and preparation of Construction Drawings • Structural Modules Design (e.g., CA01, CA02, CA03) and left in place forms (CB's) • Floors Modules (e.g., CA30 and CA50 modules Series) • Steel Frames Design • Site support (*) Various contracts	1.154	PWR
2011-2014	US/CHINA	AP1000 Plant Shield Building Roof Design Client: Westinghouse Electric Company <ul style="list-style-type: none"> • Conceptual and detailed design of the AP1000 Shield Building Roof for both the Sanmen NNPs and US standard Plants • Design of the PCCS Storage Tank, Internal and External Walkways, Valve room. • Construction Sequence for the Conical Roof 	1.154	PWR
2008-on going (*)	Slovakia	Mochovce NPP – Units 3 & 4 Client: ENEL – Slovenské elektrárne <ul style="list-style-type: none"> • Multipurpose Engineering Activities • Engineering Services for Nuclear Island • Support Activities for Conventional Island EPCM • Engineering Services for management of physical & functional CI and NI interfaces (*) Various contracts	2 x 440	VVER



NUCLEAR POWER PLANTS

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/ Duration	COUNTRY	PLANT / CLIENT / PROJECT	UNITS / POWER (MWe)	PLANT TYPE
2001-2012 (*)	USA	<p>AP1000 Standard Plant Client: Westinghouse Electric Company</p> <ul style="list-style-type: none"> • AP1000 Pre-Licensing and Licensing Support for Standard Plant • AP1000 Nustart Post-Licensing Activities • AP1000 Design Finalization Work <p>(*) Various contracts</p>	1.154	PWR
1997-2012 (*)	Europe	<p>EPP – European Passive Pressurized Water Reactor (AP1000 Europe) Client: EPP European Utilities Partners</p> <ul style="list-style-type: none"> • Studies for European Passive Pressurized Water Reactor Programme <ul style="list-style-type: none"> ○ Integrated Layout ○ Fluid System Design ○ Safety Analyses ○ UK GDA Support <p>(*) Various contracts</p>	1.117	PWR



NUCLEAR POWER PLANTS

PREVIOUS CONTRACTS (2000-2010)

Year of Award/ Duration	COUNTRY	PLANT / CLIENT / PROJECT	UNITS / POWER (MWe)	PLANT TYPE
2008	USA	<p>NuScale Integrated Reactor Client: NuScale Power Inc.</p> <ul style="list-style-type: none"> Thermal Hydraulic Sizing of the Helical Coil Steam Generator for the Nuscale Integrated Reactor 	45	PWR
2003-2007	Romania	<p>Cernavoda NPP - Unit 2 – Construction Client: Societatea Nationala Nuclearelectrica</p> <ul style="list-style-type: none"> Unit 2 - Completion Contract. As Main contractor in Joint Venture with AECL. Construction activity were performed by a Site Joint Management team with Ansaldo Nucleare providing an average of 70 and a maximum of 110 skilled engineers involved in the Construction, Commissioning, service and management of contracts with local organization. The scope of work for Ansaldo Nucleare included: (a) overall project management, together with its partner AECL, including site management through a Project dedicated integrated site team, (b) engineering activities and (c) procurement of equipment and materials. <p>Unit 2 entered into commercial operation in 2007 In Consortium with Atomic Energy of Canada Ltd (AECL)</p>	700	PHWR (CANDU)
2003-2007	Romania	<p>Cernavoda NPP - Unit 2 – BOP Design & Procurement Client: Societatea Nationala Nuclearelectrica</p> <ul style="list-style-type: none"> Unit 2 - Completion Contract. BOP Design Authority and Procurement Ansaldo Nucleare is the design authority for the whole Balance of Plant (B.O.P.). The main systems supplied by Ansaldo Nucleare were: <ul style="list-style-type: none"> Electrical Distribution Equipment Distributed Control System (DCS) Non Nuclear Valves (BOP and NSP) Instrumentation Motors, Pumps and Compressors 	700	PHWR (CANDU)
2003-2007	Romania	<p>Cernavoda NPP - Unit 2 – BOP Distributed Control System Client: Societatea Nationala Nuclearelectrica</p> <ul style="list-style-type: none"> Design, procurement, installation, testing and commissioning of a Distributed Control System (DCS) for the BOP systems. <ul style="list-style-type: none"> Identification of the I/O related to the DCS (12000 I/O) Development of the configuration for the DCS Design of the logic and analogue controls of the DCS Preparation of the configuration control sheets to implement the controls in the software Supply of the related hardware (60 cabinets) Installation of the DCS Commissioning of the DCS, the interlocks and of the analogue controls 	700	PHWR (CANDU)



NUCLEAR POWER PLANTS (Fusion Reactors)

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/ Duration	COUNTRY	PLANT / CLIENT / PROJECT	PLANT TYPE
2018-on going		ITER – International Thermonuclear Experimental Reactor Client: ITER Organization <ul style="list-style-type: none"> • TAPB (Tokamak Assembly Preparation Building) Architect and Engineering (AE) Contract In JV with Tractebel	Fusion Reactor (Experimental)
2016-2018		ITER – International Thermonuclear Experimental Reactor Client: ITER Organization <ul style="list-style-type: none"> • HCCB (Hot Cell Complex Building) Engineering Services- Conceptual Design, Trade off analysis In JV with Tractebel	Fusion Reactor (Experimental)
2015-on going		ITER – International Thermonuclear Experimental Reactor Client: ITER Organization <ul style="list-style-type: none"> • TCWS (Tokamak Cooling Water System) Mechanical Analysis 	Fusion Reactor (Experimental)
2012-2015 (*)		ITER – International Thermonuclear Experimental Reactor Client: ITER Organization <ul style="list-style-type: none"> • Vacuum Vessel Pressure Suppression System (VVPSS) Safety Code Analysis and Design Support 	Fusion Reactor (Experimental)
2012-on going (*)		Client: EUROFUSION <ul style="list-style-type: none"> • DEMO: Work Package BOP (Project Leader for BOP design) 	Fusion Reactor (Experimental)
2010-on going		ITER – International Thermonuclear Experimental Reactor Client: F4E (Fusion for Energy) <ul style="list-style-type: none"> • Supply of Vacuum Vessel Sectors (5 out of 9) In Consortium with Mangiarotti and Walter Tosto (Ansaldo Nucleare Leader) <ul style="list-style-type: none"> • Detail Design and Supply of the ITER Divertor Inner Vertical Target (IVT) • Pre-production qualification for the procurement of the ITER Divertor Inner Vertical Target • Supply of Divertor CFC and W Monoblock Components • Tungsten Monoblocks Components 	Fusion Reactor (Experimental)
2010-2013		ITER – International Thermonuclear Experimental Reactor Client: ITER Organization <ul style="list-style-type: none"> • Framework Contract for Supply of Engineering Services to the Tokamak Department In the frame of EFET Consortium	Fusion Reactor (Experimental)

(*) Various contracts



NUCLEAR POWER PLANTS (Fusion Reactors)

PREVIOUS CONTRACTS (2000-2010)

Year of Award/ Duration	COUNTRY	PLANT / CLIENT / PROJECT	PLANT TYPE
2000-2007 (*)		ITER – International Thermonuclear Experimental Reactor Client: EFDA (European Fusion Development Agreement) <ul style="list-style-type: none"> • Supply of Divertor Cassette, Inner Vertical Target, Outer Vertical Target, Dome liner Prototypes • Development and Supply of VVPSM (Vacuum Vessel Poloidal Segment Model) Mock ups • Development and supply of CFC and W monoblocks mock ups and components 	Fusion Reactor (Experimental)
2000-2012 (*)		Ignitor (Tokamak machine for Fusion) Client: ENEA <ul style="list-style-type: none"> • Design Optimization of the IGNITOR Tokamak • Engineering Design of IGNITOR Fusion Machine • Design Review of IGNITOR Tokamak Project 	Fusion Reactor (Experimental)
1994-2008		ITER – International Thermonuclear Experimental Reactor Client: EFDA (European Fusion Development Agreement) <ul style="list-style-type: none"> • Framework contract for supply of Engineering Services for ITER Design (Tokamak Cooling Water System, Vacuum Vessel, Divertor, Magnets, Remote Handling) In the frame of EFET Consortium	Fusion Reactor (Experimental)

(*) Various contracts



NUCLEAR POWER PLANTS

Other relevant projects

Year of Award /Duration	COUNTRY	PLANT / CLIENT / PROJECT	UNITS / POWER (MWe)	PLANT TYPE
1991-1996	Romania	Cernavoda NPP Client: RENEL <ul style="list-style-type: none"> • Unit1 – Completion Contract (BOP) Unit 1 entered into commercial operation in 1996 In Consortium with Atomic Energy of Canada Ltd (AECL)	700	PHWR (CANDU)
1990-1999 (*)	USA	AP600 Client: Westinghouse Electric Company <ul style="list-style-type: none"> • First-of-a-kind-Engineering (FOAKE) Program • Design Certification (*) Various contracts	600	PWR
1976-1986	France	Creys Malville NPP (Superphénix) Client: NERSA (Consortium EDF/ENEL/SBK) <ul style="list-style-type: none"> • EPC Contract Plant entered into commercial operation in December 1986 In Joint Venture with NOVATOME (now AREVA-NP)	1200	FBR
1970-1981	Italy	Caorso NPP Client: ENEL <ul style="list-style-type: none"> • Turnkey Supply of the Plant NPP entered into commercial operation in December 1981 Plant electric production stopped by Italian referendum in 1987 In Joint Venture with General Electric	860	BWR
1973	Argentina	Embalse NPP Client: CNEA (Comision Nacional de Energia Atomica) <ul style="list-style-type: none"> • BOP Design&supply • NPP Seismic Qualification with special attention to the complete system "Calandria Refueling Machine" In cooperation with Italimpianti	650	PHWR (CANDU)
1982-1986	Italy	PUN (Piano Unificato Nucleare) Client: ENEL <ul style="list-style-type: none"> • EPC Contract Project stopped at the end of the detailed engineering stage, while major components were under construction	2 x 970	PWR (Italian Standard NPP)
1976-1985	Italy	CIRENE Reactor (CISE Reattore a nebbia) Clients: ENEA/ENEL <ul style="list-style-type: none"> • EPC Contract Activities stopped at the commissioning phase	40	LWRHW (Demonstration Plant)
1974-1986	Italy	PEC (Prova Elementi Combustibile) Research Reactor Client: ENEA <ul style="list-style-type: none"> • R&D Contract Plant erection stopped at 60%	120 [MWth]	FBR (Research Reactor)
1974-1987	Italy	Montalto Di Castro NPP Client: ENEL <ul style="list-style-type: none"> • EPC Contract 80% of construction works completed Plant construction stopped by Italian referendum in 1987 In Joint Venture with General Electric	2 x 1000	BWR



SERVICE to Operating Nuclear Plants

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2017-2021	Slovenia	Krško Phase 3 Safety Upgrade Client: Nuklearna Elektrarna Krško <ul style="list-style-type: none"> • Construction of Bunkerized Building (BB2) with support systems • Alternate Safety Injection • Alternate Auxiliary Feedwater • BB2 Emergency Electrical Power Supply
2016-on going	Romania	Cernavoda NPP - Units 1&2 Client: Societatea Nationala Nuclearelectrica Specialized Technical Assistance Services and Spare Parts (*) (*) <i>Various contracts</i>
2014-on going	Argentina	Embalse NPP Client: Nucleoelectrica Argentina <ul style="list-style-type: none"> • Chilled Water System Supply
2013-on going	China	Tianwan NPP – Units 1 & 2 Client: Atommashexport "OJSC" <ul style="list-style-type: none"> • Refurbishment of No. 2 Control System Sets for Fuel Handling Machines
2013-2014	UK	Various locations Client: EdF <ul style="list-style-type: none"> • Japanese Emergency Response (JER) Pond Water Package Cooler
2014-on going	Argentina	Embalse NPP Client: Nucleoelectrica Argentina <ul style="list-style-type: none"> • Chilled Water System Supply
2013-on going	China	Tianwan NPP – Units 1 & 2 Client: Atommashexport "OJSC" <ul style="list-style-type: none"> • Refurbishment of No. 2 Control System Sets for Fuel Handling Machines
2012-2017	Argentina	Embalse NPP Client: Nucleoelectrica Argentina <ul style="list-style-type: none"> • Supply of Components and Services related to Thermal Cycle and Turbogenerator Power Uprate of the Life Extension Project (PLEX)
2012-2017	Argentina	Embalse NPP Client: Nucleoelectrica Argentina <ul style="list-style-type: none"> • Stand-By Diesel Generators Station (within the activities related to the "Plant Life Extension")
2003-2015 (*)	Romania	Cernavoda NPP - Units 1&2 Client: Societatea Nationala Nuclearelectrica <ul style="list-style-type: none"> • Critical Spare Parts of Feedwater Pumps/Motors • Monitoring and Improvement of Thermal Cycle Expansion Joints • Feedwater Pump Maintenance • Atmospheric Steam Discharge Valves (ASDV) (*) <i>Various contracts</i>
2013-2014	Romania	Cernavoda NPP - Units 1&2 Client: Societatea Nationala Nuclearelectrica Main Steam and Condensate System Engineering studies and Operation Optimization
2013-2014	Romania	Cernavoda NPP - Units 1&2 Client: Societatea Nationala Nuclearelectrica Engineering Services for Condenser Cooling Water (CCW) System with Two Pumps in Operation
2005-on going	UK	Various locations (Magnox sites) Client: British Energy (now EdF Energy) Flask Leak Test Equipment (FLTE)
2003-2012	Ukraine	Chernobyl NPP Programme: EBRD – ChDSF (Chernobyl International Decommissioning Support Fund) <ul style="list-style-type: none"> • Design, Supply and installation of an Integrated Automated Monitoring System (IAMS) In Joint Venture with CESI, THALES ALENIA SPACE, ENERGOATOM



SERVICE to Operating Nuclear Plants

PREVIOUS CONTRACTS (2000-2010)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2007-2010	Slovenia	Krško NPP Client: NEK (Nuklearna Elektrarna Krško) <ul style="list-style-type: none"> Analysis and re-design of RCP MTR CC Connections
2006-2011 (*)	Argentina	Embalse NPP Client: Nucleoelectrica Argentina <ul style="list-style-type: none"> Chillers Modification study Diesel Generator Monitoring (study and supply) Inspection of low-pressure Turbine Conditioning Assessment BOP Life Extension and Repowering Study (*) Various contracts
2003	Armenia	Medzamor NPP – Unit 2 Programme: EC – Tacis (Technical Assistance to CIS) <ul style="list-style-type: none"> Application of Leak Before Break (LBB) Methodology to the Primary System and Surge Lines (Project A1.01/00 – Lot1 and Lot 2) In Joint Venture with Empresarios Agrupados / CONEXP
2002	Romania	Cernavoda NPP - Unit 1 Client: Societatea Nationala Nuclearelectrica <ul style="list-style-type: none"> Repair and Improvement of Recirculated Water System
2002	Switzerland	Megapie Nuclear Facility Client: Paul Sherrer Institute <ul style="list-style-type: none"> Experimental Facility for Testing of Liquid Metal Targets under Proton Beams
2001	China	Tianwan NPP – Units 1 & 2 Client: Atommashexport <ul style="list-style-type: none"> Design and Supply of 2 Control System Sets for Fuel Handling Machines
2001	Romania	Cernavoda NPP - Unit 1 Client: Societatea Nationala Nuclearelectrica <ul style="list-style-type: none"> Refurbishing of Main Feedwater Pumps and Condensate Extraction Pumps
2000	Russia	Volgodonsk Test Facility Client: Atommashexport <ul style="list-style-type: none"> Control System for Fuel Handling Machines
2000	Eastern Europe	VVERs Programme: EC – Tacis (Technical Assistance to CIS) <ul style="list-style-type: none"> LBB (Leak Before Break) Applicability Review and Basic Implementation Engineering for VVER 1000 Model 320 NPP (Project R2.09/96) In Joint Venture with Empresarios Agrupados
1999	Eastern Europe	VVERs Programme: EC – Tacis (Technical Assistance to CIS) <ul style="list-style-type: none"> Fire Risk Assessment for All Types of Reactors (Project R2.0/96) In Joint Venture with NNC
1999	Romania	Cernavoda NPP - Unit 1 Client: Societatea Nationala Nuclearelectrica <ul style="list-style-type: none"> Upgrading of Pump Screen House
1999-2002 (*)	France	Creys Malville (Superphénix 1) Client: EDF <ul style="list-style-type: none"> Technical Assistance to Safe Shutdown Operations In the frame of NNS - Société de Service pour Réacteur Rapide (with AREVA-NP) (*) Various contracts



DECOMMISSIONING and WASTE MANAGEMENT

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2017-2027	UK	Sellafield NPP Client: Sellafield Sites Ltd <ul style="list-style-type: none"> Horizontal and Vertical radiological shielding Doors (of up 90 tonnes)
2017-2018	UK	Dounreay Client: Dounreay Site Restoration Ltd <ul style="list-style-type: none"> Design substantiation, procurement, manufacture, off-site testing, installation and on-site testing of conveyors and mixing station of the ADU Floc Immobilisation Line
2016-on going	Italy	Latina NPP (ITEA) Client: SOGIN <ul style="list-style-type: none"> Design and Realization of liquid waste treatment plant
2016-2026	UK	Sellafield NPP Client: Sellafield Sites Ltd <ul style="list-style-type: none"> In-cell Crane Framework In Joint Venture with REEL
On going	UK	Magnox Swarf Storage Silo (MSSS) Client: Sellafield Ltd <ul style="list-style-type: none"> Design, Manufacture, test and commission of 3 Silo Emptying Plant (SEP) Mobile Caves waste retrieval machines to extract ILW from 22 silos in the Solid Waste Storage Facility
2015-on going	Italy	Caorso NPP Client: SOGIN (Società Gestione Impianti Nucleari) <ul style="list-style-type: none"> Retrieval, Transport, treatment and conditioning (including Final Waste Package qualification) of radioactive waste (Spent Resins and sludges) In Joint Venture with JAVYS
2015-on going	Italy	Latina NPP Client: SOGIN <ul style="list-style-type: none"> Design, procurement, testing and commissioning of a mobile system for low and intermediate activity solid waste supercompaction and conditioning
2014-on going	Italy	Latina NPP (Nuovo LECO) Client: SOGIN <ul style="list-style-type: none"> Completion of LECO Facility (design, manufacture, installation and commissioning of a system for the retrieval and transferring of radioactive sludge)
2014-on going	Italy	EUREX (Enriched Uranium Extraction) Center- Saluggia Client: SAIPEM <ul style="list-style-type: none"> Engineering Services for the construction of a cementation facility for intermediate level liquid waste (CEMEX)
2014-on going	Italy	Garigliano NPP Client: SOGIN <ul style="list-style-type: none"> Detailed Design and On-site Activities for Decommissioning of Systems and Components of the Turbine Building, including Refurbishment of needed Auxiliary Systems, Supply of Radiation Monitoring and E&IC systems
2014-on going	Italy	Bosco Marengo Facility Client: SOGIN <ul style="list-style-type: none"> Revamping of the Mock-up system for testing, in "cold conditions", the Wet Oxidation process on spent resins and organic materials
2013-on going	Italy	EC - Joint Research Centre – Ispra Client: EC – JRC - Ispra <ul style="list-style-type: none"> Retrieving, dismantling and packing of GIOCONDA, CART, COLIBRI irradiated rigs and irradiated nuclear material (INM) items stored in ADECO Reactor
2012-on going	Italy	EC - Joint Research Centre – Ispra Client: EC – JRC - Ispra <ul style="list-style-type: none"> Design and qualification of a Final Waste Package (FWP) for category 2 solid waste, according to Italian and International Regulations
2010-2013	Russia	Andreeva Bay Client: FSUE FZYARB <ul style="list-style-type: none"> Design of a Liquid Radioactive Waste Management Facility (LWMF), a Solid Radioactive Waste Management Facility (SWMF); Design of a Temporary Storage Facility for conditioned radioactive waste



DECOMMISSIONING and WASTE MANAGEMENT

RECENT CONTRACTS (COMPLETED IN THE LAST 5 YEARS)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2009-on going (*)	Italy	<p>EC - Joint Research Centre – Ispra Client: EC – JRC - Ispra</p> <ul style="list-style-type: none"> • D&WM Programme Support Services for Management, Engineering and Operations - Lot 2: Engineering Support (ES) Services <p>In Joint Venture with Westinghouse Spain, Ansaldo Nucleare leader</p> <p>(*) Long term framework contract</p>
2009-on going (*)	Italy	<p>Trino NPP Client: SOGIN</p> <ul style="list-style-type: none"> • EPC, Commissioning of Wet Oxidation Plant for processing spent radioactive resins • Modifications of the existing radwaste system <p>(*) Various contracts</p>
2012-2012	UK	<p>Trawsfynydd Client: ACTUS (JV among Jacobs, Amec, Costain and Babcock Nuclear Services) ILW Solutions</p> <ul style="list-style-type: none"> • Suite of equipment to support the FEDER (Fuel Element Debris Enhances Retrievals) Project
2011- 2012	UK	<p>Berkeley NPP Client: Nuvia UK Ltd</p> <ul style="list-style-type: none"> • Chute Silo Manipulator Refurbishment
2008- 2012	UK	<p>Sellafield Client: Wellman Booth (part of the Langley Group)</p> <ul style="list-style-type: none"> • EPS3 (Encapsulated Product Store 3) Vault Crane Grapple
2009-2013	Italy	<p>Caorso NPP Client SOGIN</p> <ul style="list-style-type: none"> • Decommissioning of the Turbine Building Systems <p>In Joint Venture with Despe and Techint</p>
2008-2013	Italy	<p>Latina NPP (LECO Facility) Client: SOGIN</p> <ul style="list-style-type: none"> • Detail Design and Construction of a Facility for the Extraction and Conditioning of Radioactive Sludges. <p>In the frame of ACTEC Consortium: Ansaldo Nucleare (Leader) and Techint</p>
2008-2011	Lithuania	<p>Ignalina B1 NPP Client: Nuvia Ltd – UK</p> <ul style="list-style-type: none"> • Fuel Inspection Hot Cell (Cask Transfer Bogie, Shielded Seal Hatch, Alpha Lid Removal Device, Unbolting Area Access Platform, Cask Additional Neutron Shielding)
2007-2016	Lithuania	<p>Ignalina B1 NPP Client: Nuvia Ltd – UK</p> <ul style="list-style-type: none"> • Design and Supply of FIHC (Fuel Inspection Hot Cell) Handler • Grabs for Fuel Manipulator and Related E&IC System
2006-2015	Lithuania	<p>Ignalina NPP Client: NUKEM GmbH</p> <ul style="list-style-type: none"> • Solid Waste Retrieval Facilities - Design and Supply of Retrieval Unit 1, Landfill Separation Facility and Control Building <p>In Joint Venture with Babcock Noell</p>
2003-2017 (*)	France	<p>Creys Malville (Superphénix 1) Client: EDF</p> <ul style="list-style-type: none"> • Technical Assistance for Decommissioning <p>In the frame of NNS - Société de Service pour Réacteur Rapide (with AREVA-NP)</p> <p>(*) Long term framework contract</p>



DECOMMISSIONING and WASTE MANAGEMENT

PREVIOUS CONTRACTS (2000-2010)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2007	Italy	Nuclear Italian Sites Client: SOGIN <ul style="list-style-type: none"> • Engineering Support for Safety Improvements and Pre-decommissioning Studies for the Italian Nuclear Sites
2007	Italy	RTS-1 Research Reactor Client: CISAM (Centro Interforze Studi Applicazioni Militari) <ul style="list-style-type: none"> • Decommissioning of the Secondary Circuit of the Research Reactor RTS-1, "G. Galilei"
2006	Italy	Caorso NPP Client: SOGIN <ul style="list-style-type: none"> • Design and Supply of the Waste Management Facility
2006	Italy	EUREX (Enriched Uranium Extraction) Center- Saluggia Client: SOGIN <ul style="list-style-type: none"> • Design and Realisation of a New Water Supply System for the Nuclear Facilities
2006	Italy	EUREX (Enriched Uranium Extraction) Center- Saluggia Client: SOGIN <ul style="list-style-type: none"> • Design and Supply of Special Equipment for Handling and containers for storage of Fuel Elements (Magnox & MTR)
2007-2008	UK	Various locations (AGR sites) Client: British Energy <ul style="list-style-type: none"> • Graphite Core Inspection Hoist
2009-2009	UK	Dounreay Client: DSRL (Dounreay Site Restoration Limited) <ul style="list-style-type: none"> • ILW Sorting Manipulator
2009-2010	UK	Sellafield Client: Costain <ul style="list-style-type: none"> • EVAPORATOR D Project (Personnel Access Shielding Doors)
2002-2004	UK	MoltenSalt Winfrith Client: Nexia Solutions <ul style="list-style-type: none"> • Molten Salts Glovebox
2005	Italy	Nuclear Italian Sites Client: SOGIN <ul style="list-style-type: none"> • Design and Supply of Containers for Storage of Solid Radioactive Waste (LILW)
2004	Ukraine	Khmelnitsky NPP Programme: EC – Tacis (Technical Assistance to CIS) <ul style="list-style-type: none"> • Treatment of Backlog of Radioactive Waste Water In Joint Venture with YUTEM, Ansaldo Nucleare leader
2004	Italy	Caorso NPP Client: SOGIN <ul style="list-style-type: none"> • Polar Crane Upgrading
2003	Italy	EUREX (Enriched Uranium Extraction) Center- Saluggia Client: SOGIN <ul style="list-style-type: none"> • New Plant for Liquid Waste Storage (ILLW)
2002	Italy	Caorso NPP Client: SOGIN <ul style="list-style-type: none"> • Decontamination Plant using the PHADEC Process In JV with Babcock Noell
2002	Italy	Caorso / Garigliano NPPs Client: SOGIN <ul style="list-style-type: none"> • Decommissioning Design and Strategy
2001	Italy	CISAM Center – San Piero a Grado Client: CISAM (Centro Italiano Studi Applicazioni Militari) <ul style="list-style-type: none"> • Trituration and Compaction Plant for LILW



DECOMMISSIONING and WASTE MANAGEMENT

PREVIOUS CONTRACTS (2000-2010)

Year of Award/Duration	COUNTRY	PLANT / CLIENT / PROJECT
2001	Italy	Caorso / Garigliano NPPs Client: SOGIN SpA <ul style="list-style-type: none"> • Safety Case and Detailed Dismantling Engineering
2000	Italy	Joint Research Centre – Ispra Client: EC – JRC - Ispra <ul style="list-style-type: none"> • Design of an Interim Storage for Ispra Radwaste (LILW), in Joint Venture with SGN
2000	Italy	Caorso / Garigliano / Trino NPPs Client: SOGIN <ul style="list-style-type: none"> • CAD-assisted Decommissioning Management Tool
1999	Ukraine	Chernobyl NPP Programme: EBRD – ChIDSF (Chernobyl International Decommissioning Support Fund) <ul style="list-style-type: none"> • Design and supply of several nuclear cranes and handling devices for a Liquid Radwaste Treatment Plant (LRTP), in Joint Venture with Belgom/SGN
1998	The Netherlands	COVRA-HABOG Storage Facility Client: SGN (Société Générale pour le Techniques Nouvelles) <ul style="list-style-type: none"> • Design, supply, installation and commissioning of 3 nuclear cranes- Bunker Crane, Transfer Crane, Canister Crane- including all the related devices and gripping tools, for High Level Waste interim Storage Facility
1998	Italy	Joint Research Centre – Ispra Client: EC – JRC - Ispra <ul style="list-style-type: none"> • STEL - Liquid Waste Treatment Facility (LLW) in JV with SGN/SOGEDEC
1998	Italy	EUREX (Enriched Uranium Extraction) Center- Saluggia Client: ENEA <ul style="list-style-type: none"> • CORA project for Intermediate Level Liquid Waste Vetrification (Suspended) in JV with Techint/SGN/Nucleco