



References for MasterClass CSU training and deployments of Zenator Systems



License Holder	Operator	Project	Start	Finish	Brief Description
--	--	CSU training for PetroSkills	Aug-21	Ongoing	CSU Foundation Training, virtual classroom and in-person for project professionals worldwide
Petrofac	Seagreen	Seagreen Wind Farm, Scotland	Aug-21	Ongoing	Zenator and Walkdown Capture, UK's largest offshore wind farm, Scotland
Petrofac	Thai Oil	Siracha Refinery, Thailand	Jul-21	Ongoing	Zenator and Walkdown Capture, Clean Fuel Project, Thailand
Anoh Gas Co	AGPC	Anoh Gas Processing, Nigeria	Jul-21	Ongoing	Zenator, new gas processing plant, Nigeria, Operator Training for CSU
Petrofac	HKZ	Wind Farm Sub-Stations	Sep-19	Ongoing	Zenator and Walkdown Capture, 3.5 GW electricity sub-stations for offshore wind farm, Germany
Sinopec	KNPC	Mina Al Ahmadi Refinery, Kuwait	Jul-19	Ongoing	Zenator, Onshore refinery, Kuwait, Operator Training for CSU, Kuwait
-	Air Products	Jazan IGCC, KSA	Jun-19	Aug-19	CSU Advisor for the completion of Jazan IGCC, Kingdom of Saudi Arabia
Kiewit	Fields Point	Fields Point LNG	Apr-19	Ongoing	Zenator, new LNG export facility, New England
Kiewit	Venture Global	Calcasieu Pass LNG, Louisiana	Apr-19	Ongoing	Zenator and Walkdown Capture, new LNG export facility, Louisiana
-	-	MasterClass with API RP 1 FSC	Feb-19	To Date	MasterClass CSU eLearning Foundation Training for users worldwide
-	-	CSU with API RP 1 FSC	Feb-19	Feb-19	Public Training – CSU with API RP 1 FSC, Houston
-	Petrofac / Ithaca	CSU with API RP 1 FSC	Aug-18	Aug-18	Team Training - CSU with API RP 1 FSC, Aberdeen, Scotland
Kiewit	Anadarko	Permian Basin, West Texas, US	Mar-18	Feb-19	Zenator, implementation, CSU training – oil shale production, W Texas, US
Kiewit	TFP	Terminal Fluidos Progreso	Mar-18	Apr-19	Zenator and Walkdown Capture, implementation, CSU training - offloading terminal, Progreso, Mexico
Petrofac	Sakhalin Energy	Process Facility, Sakhalin	Sep-17	Ongoing	Zenator, implementation, training for CSU at OPF, Sakhalin Island, Russia
Petrofac	Duqm Refinery	Duqm Refinery, Oman	Aug-17	Ongoing	Zenator, implementation, training for CSU - new refinery in Duqm, Oman
Petrofac	SLPG	Salalah LPG, Oman	Jul-17	Ongoing	Zenator, Liquid petroleum gas plant, Salalah, Operator Training for CSU, Oman
DNO	DNO	Erbil PSC, Iraq	Jun-17	Jun-19	Zenator, Onshore production facilities Iraq, Operator Training for CSU, Dubai
Chevron	Chevron Nigeria	Escravos Export System, Nigeria	Jun-17	Jun-18	Zenator, Commissioning gas production facilities, Training for CSU, Nigeria
Costain	National Grid	Transmission & Distribution	May-17	Feb-20	Team Training - Zenator, Whole Life Asset Management, Manchester, UK
Chevron	Chevron	Tahiti Vertical Expansion	Apr-17	Apr-19	Zenator implementation on GOM brownfield expansion project, Houston
Kiewit	BP	SP89E Platform Expansion	Nov-16	Feb-19	Zenator implementation, CSU training - oil export facility for Shell Appomattox.
-	-	CSU with API RP 1 FSC	Sep-16	Sep-16	Public Training - CSU with API RP 1 FSC, Houston
PDO	PDO	Petroleum Development Oman	Jan-16	Ongoing	Zenator implementation, CSU training, data migration for 350 "live" projects.
-	Shell	Stones, Turrutella FPSO	Sep-15	Jan-16	Visual Aid Training Materials for new Operators – Initial Start-Up Procedures.
-	-	CSU with API RP 1 FSC	Mar-15	Dec-15	Public Training – CSU with API RP 1 FSC, Houston, KL, & Singapore
-	Shell	Stones, Turrutella FPSO	Jan-15	Jan-15	Team Training - CSU with API RP 1 FSC, Houston
-	-	CSU with API RP 1 FSC	Nov-14	Nov-14	Public Training - CSU with API RP 1 FSC, Silverstone
-	-	CSU with API RP 1 FSC	Nov-14	Nov-14	Public Training – CSU with API RP 1 FSC, Houston
Costain	Magnox Limited	Evap D, Sellafield NPP, UK	Oct-14	Oct-14	Training - Zenator implementation, CSU of Nuclear Reprocessing Plant, UK
-	-	CSU with API RP 1 FSC	Jul-14	Jul-14	Public Training - CSU with API RP 1 FSC, Houston
Chiyoda	Exxon Mobil	Scarborough, FLNG	Jun-14	Jun-14	Team Training – CSU with API RP 1 FSC with Zenator, Philippines
-	-	CSU with API RP 1 FSC	Jul-14	Jul-14	Public Training - CSU with API RP 1 FSC API RP 1 FSC, Houston
EJV	Mobil Cepu Ltd	Banyu Urip, Indonesia	Jun-14	Jun-14	Team Training – CSU with API RP 1 FSC with Zenator, Indonesia
-	-	CSU with API RP 1 FSC	Mar-14	Mar-14	Public Training - CSU with API RP 1 FSC, KL, Malaysia
-	Shell	Stones, Turrutella FPSO	Feb-14	Feb-14	Team Training – CSU with API RP 1 FSC, CSU Audit, Singapore
Petrofac	Qatar Petroleum	Gas Sweetening Project, Qatar	Jan-13	Jul-16	Zenator, Onshore production facilities and Operator Training for CSU, UAE
Petrofac	Gazprom Neft	Badra, Iraq	Nov-13	Dec-17	Zenator, Onshore oil field development and Operator Training for CSU, UAE
Petrofac	Turkmengas	South Yoloten, Turkmenistan	Dec-12	Jan-18	Zenator, Onshore production facilities and Operator Training for CSU, UAE
-	-	CSU with API RP 1 FSC	Nov-13	Nov-13	Public Training - Commissioning & Start-Up, API RP 1 FSC, Houston
Petrofac	BP	In Salah Gas, Phase II, Algeria	Sep-13	Ongoing	Zenator, Onshore production facilities and Training for CSU, UAE, Algeria
Costain	Magnox Limited	Bradwell, Nuclear Power Plant	Jan-12	Dec-17	Zenator, Plant Decommissioning and new Toxic Waste Treatment facilities
Petrofac	ExxonMobil	Zadco 750, Abu Dhabi	Dec-15	Ongoing	Zenator, Offshore production facilities and Training for CSU in Sharjah
Chevron	CABGOC	Lianzi Subsea, Angola	Jun-13	Dec-16	Zenator, Subsea production facilities and Training for CSU in Houston
Chiyoda	ExxonMobil	Scarborough, FLNG	May-13	Apr-16	Zenator, FLNG, Operator Training in Yokohama & Manila
Chevron	CABGOC	Mafumeira Sul, Angola	Apr-13	Apr-18	Zenator, Offshore production facilities and Operator Training in Korea
Chevron	Chevron Nigeria	Meren-Sonam (Dom Gas)	Nov-12	Jul-17	Zenator, Offshore production facilities and Operator Training in Korea
Chevron	CVX Bangladesh	Bibiyana Expansion	Nov-12	Oct-16	Zenator, Onshore gas production facilities, Operator Training in Thailand
Chevron	CABGOC	Nemba, Angola	Aug-12	Dec-16	Zenator, Offshore gas production facilities, Operator Training in Houston

The key factors we focus on to ensure CSU Readiness are:

- The **Influence Curve** - acting while influence is at its highest, ensuring the project achieves desired outcomes, involving key Stakeholders and EPCs
- Application of reputable and proven methodology - adherence to **Phase Gate** processes
- In its default condition, Zenator is configured to be fully compliant with the requirements of the American Petroleum Institute recommended practice, called, **"API RP 1 Facilities Systems Completion, Planning & Execution, 1st Edition"**.



GLOBALFALCON

References for MasterClass CSU training and deployments of Zenator Systems



FALCON GLOBAL

License Holder	Operator	Project	Start	Finish	Brief Description
Chevron	Chevron Australia	Wheatstone Upstream	Aug-12	Jun-17	Zenator , Offshore gas production facilities, Operator Training in Houston
EJV	Chiyoda	TMP2, Bintulu, Sarawak	Oct-12	Sep-13	Zenator , Polycrystalline Silicon Plant, Operator Training in Malaysia
EJV	ExxonMobil	Banyu Urip, Indonesia	Sep-12	Jul-16	Zenator and Walkdown Capture , CSU Audit onshore gas production facilities, Training in Indonesia
OSX	OSX Brazil	Almagesto, Super Port, Açu	Mar-12	Dec-15	Zenator , new applications, CSU Audit Operator Training in Brazil
Chevron	CABGOC	Congo River Crossing, Angola	Sep-11	Dec-15	Zenator , Pipelines & production facilities, Operator Training in Houston, Angola
Chevron	Chevron USA	Big Foot, GOM	Jun-11	Nov-18	Zenator , New gas production facilities and Operator Training in Houston
Costain	4Delivery	Water Supply & Infrastructure	Jun-10	Oct-12	Zenator , Water Supply Infrastructure in Southern England
Chevron	Unocal East China	Chuandongbei, China	Feb-11	Dec-15	Zenator , New gas production facilities and Operator Training in US, China
Chevron	Chevron USA	Jack & St Malo, GOM	Jan-11	Dec-16	Zenator , Offshore production facilities and Operator Training in Houston
Chevron	CABGOC	Cabinda Gas Plant, Angola	Oct-10	Nov-12	Zenator , New gas production facilities, Operator Training in Houston
KJV-G	Chevron Australia	Gorgon Downstream	Aug-10	Apr-17	Zenator , LNG production facilities, Operator Training in Korea, China, Australia
Exterran	JKX	Gas Plant, Russia	Sep-10	Oct-11	Zenator , New gas production facilities, Operator Training in Dubai
Exterran	Zhaikunai	Chinarevskoye, Kazakhstan	May-10	Nov-11	Zenator , CSU Audit of gas production facilities, Operator Training in Dubai
Petrofac	ADNOC	ASAB, Abu Dhabi	May-10	Dec-15	Zenator , ASAB Production facilities, Abu Dhabi, Operator Training in Sharjah
Petrofac	ADNOC	Gasco Train 4, Abu Dhabi	May-10	Jan-16	Zenator , Production facilities, Operator Training in Sharjah
Petrofac	Saudi Aramco	Karan, Saudi Arabia	Apr-10	Jul-16	Zenator , New gas production facilities and Operator Training in Sharjah
SBM	Noble Energy EG	ASENG FPSO	Jan-10	Jun-11	PathMaker , Commissioning of facilities and Operator Training
Petrofac	Hayan Dev Co	Jihar Gas Plant, Syria	Feb-10	Apr-12	Zenator , Commissioning new gas production facilities and Operator Training
Petrofac	Anadarko Algeria	El Merk, Algeria	Mar-10	Dec-13	Zenator , Commissioning new gas production facilities and Operator Training
Chevron	Chevron Nigeria	Gas Management (OAGM)	Dec-09	Oct-12	Zenator , Commissioning Chevron Flares Out and Operator Training
BG Group	BG Tunisia	Gabes LPG, Tunisia	Jun-09	Oct-09	Commissioning LPG production, turbo-expanders, LPG storage and export.
Chevron	Chevron Nigeria	Escravos GTL, Nigeria	Jun-08	Jan-15	PathMaker and Zenator CSU Audit Escravos GTL and Operator Training
Chevron	Chevron Nigeria	Escravos EGP-3, Nigeria	Nov-08	Dec-10	PathMaker , CSU Audit of gas production facilities and Operator Training
Costain	Eon	Holford Gas Storage, UK	Jun-08	Jun-11	PathMaker , Salt Cavern Gas Storage and Operator Training
Costain	Gaz de France	Stublach Gas Storage, UK	May-08	Jun-12	PathMaker , Salt Cavern Gas Storage and Operator Training
Costain	Sellafield Ltd	Evap D, Sellafield NPP, UK	Jul-10	Jul-18	PathMaker / Zenator , Nuclear Waste Processing Facility
Costain	Magnox Limited	Hunterston A, Nuclear Power	Jan-08	Dec-17	PathMaker , Decommissioning Modular Active Effluent Treatment Plant
CLP Power	CLP Power	Castle Peak B CFPP, HK	Oct-09	Dec-10	PathMaker , CPB Desulphurisation Project and Operator Training
SBM	EnCana	"Deep Panuke", UAE, Canada	Jun-08	Dec-10	PathMaker , Commissioning of MOPU facilities and Operator Training
SBM	Woodside	"Kossack", Singapore & Brazil	Mar-08	Jun-11	PathMaker , Commissioning of FPSO and Operator Training
SBM	Petrobras	"Capixaba", Singapore & Brazil	Jan-08	Jun-11	PathMaker , Commissioning of FPSO and Operator Training
SBM	Murphy Oil, US	"ThunderHawk", GOM	Jan-08	Jul-09	PathMaker , Semi Sub Drill Rig and Operator Training
-	Tengizchevroil	2nd Gen, Tengiz & Camberley	Sep-07	Dec-09	CSU Audit 650,000 bbl/d production facilities. Specialist Training
BG Group	BG Group, Trinidad	Carapal Ridge, Central Block	Jun-07	Jan-10	PathMaker , GOSP facilities, pipelines and Operator Training
CLP Power	CLP Power	Black Point CCGT PP, HK	Jan-06	Jun-06	PathMaker , CLP Power BPPS Units 7 & 8 and Operator Training

Significant Energy Industry and Civil Infrastructure Projects outside the Oil & Gas Sector

License Holder	Operator	Project	Reference	Start	Finish	Brief Description
Costain	National Grid	Transmission & Distribution	Derick Roynance	May-17	Feb-20	Training - Zenator , Asset Management, Manchester
Costain are deploying Zenator to create an authentic asset register of transmission and distribution infrastructure for the National Grid across the UK. In addition, Zenator is being used to track, control, report and manage the completion of compressor station upgrades in Peterborough and Huntingdon.						
Costain	Magnox Limited	Bradwell, Nuclear Power Plant	Dave Kirkman	Jan-12	Dec-17	Zenator , Plant Decommissioning and new Toxic Waste Treatment facilities
Bradwell is the second project on which Costain are deploying Zenator to successfully help them track, control, report and manage the completion of new facilities, as well as the time-consuming process of decommissioning. As Costain's success in decommissioning the 1 st generation Magnox Nuclear power plants across the UK, further projects deploying Zenator are expected.						
Costain	4Delivery	Water Supply & Infrastructure	Bill Hewlett	Jun-10	Oct-12	Zenator , Water Supply Infrastructure in Southern England
For Costain, using Zenator is all about a way of working, so it made perfect sense for them to use our software and help them to track, control, report and manage the largest water treatment and distribution project in the UK, for Southern Water . Applying similar workflows and Systems Completion methodology to Oil & Gas sector projects, Costain and 4Delivery completed to specification, on time and safely in October 2012.						
Costain	Sellafield Ltd	Evap D, Sellafield NPP, UK	John Rogers	Jul-10	Jul-18	PathMaker / Zenator , Nuclear Waste Processing Facility
Starting with PathMaker and upgrading to Zenator , our software products are being used to track, control, report and manage the largest nuclear project in the UK, Evaporator D at Sellafield in NW England. With the project at over 90%, Costain and their customer, Sellafield Ltd, the Operator, share access to the same information concerning project status across all Disciplines and Sub Contracts.						
Costain	Magnox Limited	Hunterston A, Nuclear Power	Dave Kirkman	Jan-08	Ongoing	PathMaker , Decommissioning Modular Active Effluent Treatment Plant
Nuclear decommissioning is necessarily a slow, methodical process. The UK's HSE regulations require the contractor to tag, track and record each item as it is removed and put into safe storage. PathMaker , was an obvious choice for Costain to deploy. Applying all the features normally used in completing a facility, PathMaker , gives management and engineers authentic and precise status of decommissioning of Hunterston A with full traceability.						
CLP Power	CLP Power	Castle Peak B CFPP, HK	Mark Potts	Jan-07	Jun-10	PathMaker , CPB Desulphurisation Project and Operator Training
Delighted with our performance on Black Point, CLP Power involved us early in the Emissions Control project, to install a Fuel Gas Desulphurisation Unit at Castle Peak B, one of the world's largest coal-fired power plants. PathMaker was used very effectively through Detailed Engineering and all Systems Completions activities until Final Handover to Operations to make the Castle Peak B one of the world's cleanest CFPPs.						
CLP Power	CLP Power	Black Point CCGT PP, HK	Geoff McEntee	Jan-06	Jun-06	PathMaker , CLP Power BPPS Units 7 & 8 and Operator Training
We commenced with the project at 95%, and the challenge to prove to the HK regulator Black Point CCGT PP was safe to start-up. We performed Data Migration to PathMaker and proved the facility was safe to start-up.						