



## Electrostatic Treater Experience

OTSO Energy is fortunate enough to have multiple team members with over 40 years of experience in the oil & gas sector. Our team has been involved in the following Electrostatic Dehydrator projects in mixed capacities ranging from design, to engineering, fabrication, installation and commissioning.

Electrostatic Dehydrators offer extreme separation efficiencies by utilizing a high-voltage electrical field for final coalescing. High-voltage equipment demands a team with hands on experience and in depth knowledgeable of electrostatic treate design, engineering and fabrication. OTSO's team has the specific background and experience required to deliver upon these requirements.

### Past Projects & Experience (short list)

Electrostatic Treater Projects										
Domestic & International										
Year	Application	Equipment	Location	Company		Year	Application	Equipment	Location	Company
2020	Offshore	Separator/ Dehy/Desalter w/Degassers	Nigeria	Belemaoil	П	Pre-2001	Onshore	Desalter	USA	Texaco
2021	Offshore	Separator/ Dehy/Desalter w/Degassers	Nigeria	Elcrest		Pre-2001	Onshore	Dehydrator Retrofit	USA	Marathon
2006	Offshore	Dehydrator/Desalter w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator	USA	Amoco
2006	Offshore	Dehydrator/Desalter w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Desalter	USA	Texaco
2006	Offshore	Dehydrator	Brazil	Technip		Pre-2001	Onshore	Dehydrator	USA	Mobil
2007	Offshore	Dehydrator w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator Retrofit	USA	Shell
2008	Offshore	Dehydrator w/Degassers	USA	MODEC		Pre-2001	Onshore	Dehydrator	USA	Tenneco
2010	Offshore	Dehydrator	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator Retrofit	USA	Sun
2011	Offshore	Dehydrator w/Degassers	Brazil	Petrobras	1 [	Pre-2001	Onshore	Dehydrator	USA	Sohio
2011	Offshore	Dehydrator w/Internal Degasser	USA	Shell Oil		Pre-2001	Onshore	Dehydrator	USA	ARCO
2012	Offshore	Dehydrator w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator	USA	Getty
2012	Offshore	Top Separation process	Mexico	Pemex		Pre-2001	Onshore	Dehydrator	USA	Union of Calif
2014	Offshore	Top Separation process	Mexico	Pemex	1 [	Pre-2001	Onshore	Desalter Retrofit	USA	Sun
2015	Offshore	Separator/ Dehy/Desalter w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator	USA	Exxon
2016	Offshore	Separator/ Dehy/Desalter w/Degassers	Brazil	Petrobras		Pre-2001	Onshore	Dehydrator	USA	Texaco
2017	Offshore	Separator/ Dehy/Desalter w/Degassers	Brazil	MODEC		Pre-2001	Onshore	Desalter Retrofit	USA	Conoco
2018	Offshore	Separator/ Dehy/Desalter w/Degassers	Brazil	MODEC	1 [	Pre-2001	Onshore	Desalter	USA	Tenneco
2019	Offshore	Dehydrator w/Degassers	USA	Chevron		Pre-2001	Onshore	Dehydrator	USA	Mobil
2020	Offshore	Separator/ Dehy/Desalter w/Degassers	Brazil	MODEC		Pre-2001	Onshore	Dehydrator	USA	Shell
1994	Onshore	Dehydrator	Venezuela	PDVSA		Pre-2001	Onshore	Desalter	USA	ARCO
1996	Onshore	Dehydrator	Venezuela	PDVSA		Pre-2001	Onshore	Dehydrator	USA	Ambassador
1998	Onshore	Dehydrator Retrofit	Venezuela	PDVSA		Pre-2001	Onshore	Desalter Retrofit	USA	Shell
1999	Onshore	Desalter Retrofit	Venezuela	PDVSA		Pre-2001	Onshore	Dehydrator	USA	Union Texas
2000	Onshore	Desalter	Venezuela	PDVSA		Pre-2001	Onshore	Dehydrator Retrofit	USA	Marathon
2006	Onshore	Dehydrator	Colombia	Omimex		Pre-2001	Onshore	Desalter	USA	Union Oil
2006	Onshore	Dehydrator	USA	Shell Oil		Pre-2001	Onshore	Desalter	USA	Texaco
2007	Onshore	Dehydrator	Colombia	Meta		Pre-2001	Onshore	Dehydrator	USA	Amerada
2007	Onshore	Dehydrator	Colombia	Meta		Pre-2001	Onshore	Dehydrator	USA	Shell
2008	Onshore	Dehydrator	Colombia	Meta	1 [	Pre-2001	Onshore	Dehydrator Retrofit	USA	Exxon
2009	Onshore	Dehydrator	Colombia	Meta		Pre-2001	Onshore	Desalter	USA	Conoco
2009	Onshore	Dehydrator	Colombia	Ecopetrol		Pre-2001	Onshore	Dehydrator	USA	Amoco
2009	Onshore	Dehydrator	Colombia	Mansarovar		Pre-2001	Onshore	Dehydrator	USA	Gulf
2020	Onshore	Two Stage Desalters	Mexico	Pemex	1 [	Pre-2001	Onshore	Dehydrator	USA	Mobil
Pre-2001	Onshore	Dehydrator	USA	Exxon		Pre-2001	Onshore	Dehydrator Retrofit	USA	Phillips
Pre-2001	Onshore	Dehydrator	USA	Shell		Pre-2001	Onshore	Dehydrator	USA	Amoco
Pre-2001	Onshore	Dehydrator Retrofit	USA	Mobil		Pre-2001	Onshore	Desalter	USA	Texas Pacific
Pre-2001	Onshore	Desalter	USA	Superior		Pre-2001	Onshore	Dehydrator	USA	Sun
Pre-2001	Onshore	Desalter	USA	Conoco		Pre-2001	Onshore	Desalter Retrofit	USA	Gulf
Pre-2001	Onshore	Dehydrator	USA	Sun		Pre-2001	Onshore	Dehydrator	USA	Amerada
Pre-2001	Onshore	Dehydrator	USA	Arco		Pre-2001	Onshore	Dehydrator	USA	Hobbs, NM



# **Engineering & Projects Team Bio's**

#### **Paul Carmody**

Mr. Paul A. Carmody works at OTSO Energy Solutions LLC, as Director, Product Development. Under Mr. Carmody's leadership, OTSO product development innovations include the Dew Dry™ Dehy for standard glycol dehydration applications, the BoneDry™ Glycol Dehydration systems which replace mole sieve for cryogenic dehydration applications, and SlugOTSO™ Slug Catcher systems. In addition, Mr. Carmody reviews process design of other OTSO equipment to assure equipment performance meets customer requirements.

During his 32 years with Hess Corporation and its predecessor, Amerada Hess Corporation, Mr. Carmody was involved in nearly all aspects of oil and gas engineering from the reservoir sand face through the outlet of gas plants. His experience includes Permian Basin and Bakken oil development, production engineering, pipelines, dehydration units, compressors, and gas plants. Mr. Carmody also has expertise in CO2 EOR technology. In fact, he teaches the CO2 Surface Facilities Course (PF81) for Petroskills.

Mr. Carmody graduated from the University of Connecticut with a degree in Mechanical Engineering. He is a registered Professional Engineer in North Dakota.

#### **Marlene Torres**

Marlene Torres has more than thirty-eight years of professional experience in Energy and Oil & Gas Industries She held the position of Principal Engineer at Schlumberger from where she retired in 2020, prior to join OTSO as a Process Consultant. She also worked for Natco/Cameron, Prosep as Principal and Senior Process Engineer in separation process and in PDVSA for 20 years in all process of oil and gas production operations in Venezuela.

Strong knowledge in equipment design, plant operations and debottlenecking. Experienced with Separation Equipment including process plant conceptualization, design of separators, high efficiency separator internals, electrostatic treaters and desalters, heaters treaters, hot oil systems, FPSO and other process equipment. High expertise in oil chemical treatment, chemical selection and formulation and production operations. Familiar with standards and codes like ASME Sec. VIII Div.1/2, ISO, NACE, etc., others and major oil producers' and EPC standards such as, BP, Chevron, Modec, Norsock, Pemex, Petrobras Pdvsa, SBM and Shell.

#### **Bruce Erbele**

Bruce Erbele is the Chief Operating Officer at OTSO Energy. Mr. Erbele has over 40 years of experience managing oil and gas process equipment design and fabrication. Before joining OTSO, he was Director Product Development at JW Williams Inc., Director - Business Development at Calnetics/Access Energy and Director Engineering Valerus . Bruce spent the bulk of his career as Director of Traditional Projects for NATCO.

Mr. Erbele holds degrees from North Dakota State University and University of North Dakota.

#### **Steve Russom**

Steve Russom is the Chief Commercial Officer at OTSO Energy. Mr. Russom has over 35 years of experience managing oil and gas construction and process equipment design and fabrication. Before joining OTSO, he was Vice President at Tri-Point, Executive Vice President of North America Construction and Fabrication at Wood Group PSN. He has also served as Sr. Vice President at JW Williams, Flint Energy Services and Vice President Product Development at Hanover Compressor Company (now Exterran).

Mr. Russom holds a degree in Natural Gas Engineering from Texas A&M Kingsville and a BA in Communications from California State University in Bakersfield.

#### Joe Ditolla

Joe Ditolla is the Vice President of Projects and Manufacturing OTSO Energy. Mr. Ditolla has over 30 years of experience in the design and fabrication of oil and gas process equipment. Before joining OTSO, Joe was a Senior Construction Advisor Chevron and the General Manager Curtiss-Wright. Joe spent the bulk of his career as the Vice President of Manufacturing for NATCO.

Mr. Ditolla holds a Mechanical Engineering degree from the University of Central Florida.