

CSP Projects References:

References in CSP Quality Control and Technical Assistance Business Line

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
Shagaya 50MW CSP	Kuwait	TSK	Main Services provided: <ul style="list-style-type: none"> • On Site Mechanical, Civil and Structural Inspectors • On Site Radiography L2 Inspector • Global Shop Inspections • Technical Assistance 	2017-2018
KATHU-1 100 MW CSP	South Africa	Liciastar (Pty) Ltd. (Acciona - Sener)	Main Services provided: <ul style="list-style-type: none"> • On Site Quality Control and Quality Assurance Inspectors • Global Shop Inspections • Workshop permanent Inspectors • Legalization Assistance • Technical Assistance • On Site Health, Safety and Environmental officers • Expediting Services 	2017-2018
		CAMETO	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test on the solar field (absorbers, collectors, etc) • Pressure Equipment legalization • Welders Qualification and WPS 	2017-2018
		MEAPSA	Main Services provided: <ul style="list-style-type: none"> • Phase Array on the Molten Salt Tanks • Welders Qualification and WPS • Conventional Non Destructive Test • Pressure Equipment Legalization 	2017-2018
		IMASA	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test • Pressure Equipment legalization • Welders Qualification and WPS 	2017-2018
		Maracof Energy	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test • Pressure Equipment legalization • Welders Qualification and WPS 	2017-2018
		MADE	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test on steel structure • Welders Qualification and WPS 	2017-2018
ILANGA 100 MW CSP	South Africa	ILANGA COBRA-SENER	Main Services provided: <ul style="list-style-type: none"> • On site Quality Control and Quality Assurance Inspectors • Technical Advise • Constraction drawing review and approval for construction • Legalization of the Power Plant • Full time workshop inspectors • Global Shop Inspections • Pressure Equipment Legalization 	2017-2018
		MEAPSA	Main Services provided: <ul style="list-style-type: none"> • Phase Array on the Molten Salt Tanks • Welders Qualification and WPS • Non Destructive Test • Pressure Equipment Legalization 	2017-2018
		MADE	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test on steel structure • Welders Qualification and WPS 	2017-2018
		CAMETO	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test on the solar field (absorbers, collectors, etc) • Pressure Equipment legalization • Welders Qualification and WPS 	2017-2018
		IMASA	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test • Pressure Equipment legalization • Welders Qualification and WPS 	2017-2018
		MARACOF ENERGY	Main Services provided: <ul style="list-style-type: none"> • Non Destructive Test • Welders Qualification and WPS 	2017-2018

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
Noor II 200 MW CSP Noor III 150 MW Tower	Morocco	EPC Consortium (Sener, SEPCO 3)	Services Provided: • Technical assistance and Technical Training • On site inspections • Non Destructive Test	2017-2018
		ALI AIT EL HADJ	Services Provided: • Certification of personnel	2017-2018
		BATZ ENERGIA	Services Provided: • Crane, Forklift and other elevator equipment permitting	2017-2018
		BIANSA	Services Provided: • Welders Qualification and WPS	2017-2018
		C.T. Elevation	Services Provided: • Crane, Forklift and other elevator equipment permitting	2017-2018
		COFRAMASA	Services Provided: • Crane, Forklift and other elevator equipment permitting	2017-2018
		ESTRUCTURAS METALICAS	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		FERGON	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		GLOTEN	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		INDALICAS	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		ISOMONTAGE	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		MARMO (MARACOF)	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		MECTUBE	Services Provided: • Certification of personnel • Inspection of Electrical Installations	2017-2018
		MMBS	Services Provided: • Certification of personnel	2017-2018
		PARROS	Services Provided: • Crane, Forklift and other elevator equipment permitting	2017-2018
		SENER	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
		SEPCO 3	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018
SGS	Services Provided: • Non Destructive Test	2017-2018		
SOCOMEB	Services Provided: • On site inspections • Non Destructive Test • Welders Qualification and WPS	2017-2018		
SURETRAM	Services Provided: • Crane, Forklift and other elevator equipment permitting	2017-2018		
TMI	Services Provided: • On site inspections • Steel Building legalization	2017-2018		

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
ASHALIM CSP plant 2	Israel	TSK	Services Provided: <ul style="list-style-type: none"> • Workshop expediting • Shop Inspection • Vendor audit 	2015- 2016
NOOR I project	Morocco	EPC Consortium (Acciona, TSK, Sener)	Services Provided: <ul style="list-style-type: none"> • Technical assistance • Technical training • On site inspections • Non Destructive Test 	2014-2016
		FERGON	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
		Caldererías Indáficas	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
		MAP	Services Provided: <ul style="list-style-type: none"> • On site inspections • Steel Building legalization 	2014-2016
		C.T. Elevation	Services Provided: <ul style="list-style-type: none"> • Crane, Forklift and other elevator equipment permitting 	2014-2016
		DLM	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
		CONDUSAV	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
		IMASA	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
		ITURRI	Services Provided: <ul style="list-style-type: none"> • Fire Protection system legalization 	2014-2016
		ESTRUCTURAS METALICAS	Services Provided: <ul style="list-style-type: none"> • On site inspections • Non Destructive Test • Welders Qualification and WPS 	2014-2016
PARROS	Services Provided: <ul style="list-style-type: none"> • Crane, Forklift and other elevator equipment permitting 	2014-2016		
Xina 100 MW CSP	South Africa	ABEINSA XINA EPC	Main Services provided: <ul style="list-style-type: none"> • On Site Quality Control and Quality Assurance Inspectors • Global Shop Inspections • Technical Assistance 	2013-2016
		Maracof Energy	Main Services provided: <ul style="list-style-type: none"> • NDT Services • Legalization for pressure equipment and others • Technical Assistance 	2013-2016
		IMASA	Main Services provided: <ul style="list-style-type: none"> • NDT Services • Pressure Equipment legalization at the power block 	2013-2016
		MEAPSA	Main Services provided: <ul style="list-style-type: none"> • Phase Array on the Molten Salts • Welders Qualification and WPS • Non Destructive Test • Pressure Equipment Legalization 	2013-2016

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
KaXu 100 MW CSP	South Africa	ABEINSA EPC	Main Services provided: <ul style="list-style-type: none"> • On Site Quality Control and Quality Assurance Inspectors • Global Shop Inspections • Workshop permanent Inspectors • Legalization Assistance • Technical Assistance • On Site Health, Safety and Environmental officers • Expediting Services • Non-Destructive Test • On service Inspections • Fire Fighting system inspections • Verification and approval of design of several parts 	2013-2016
		MEAPSA	Main Services provided: <ul style="list-style-type: none"> • Phase Array on the Molten Salts • Welders Qualification and WPS • Non Destructive Test • Pressure Equipment Legalization 	2013-2016
Khi 50MW Tower Steam Receiver Power Plant	South Africa	ABEINSA EPC	Main Services provided: <ul style="list-style-type: none"> • Global Shop Inspections • Legalization Assistance • Technical Assistance • Non-Destructive Test during operation • On service Inspections • Fire Fighting system inspections • Verification and approval design of several parts 	2013-2016
Cerro Dominador 110 MW CSP	Chile	ABENGOA MONESA INGENIERIA	Services provided: <ul style="list-style-type: none"> • Inspections and control services • Capacity building and training on inspection and conformity assessment to staff in charge of carrying out audits • Know How transferring on international regulations and applicable conformity assessment methodologies. 	2013-2015
Bokpoort 50 MW CSP	South Africa	EPC Consortium (Acciona, TSK, Sener)	Services Provided: <ul style="list-style-type: none"> • Technical assistand during legalization • Non Destructive Testing • Welders Homologation 	2014 - 2016
		MEAPSA	Main Services provided: <ul style="list-style-type: none"> • Phase Array on the Molten Salts • Welders Qualification and WPS • Non Destructive Test • Pressure Equipment Legalization 	2014 - 2016
Solana Thermosolar Plant	USA	ABEINSA EPC	Services provided: <ul style="list-style-type: none"> • Workshop expediting • Shop inspection • Vendor audit 	2010-2013
Nevada Solar One 64 MW	USA	Acciona Energy	Services Provided: <ul style="list-style-type: none"> • EPC Project Manager for the whole plant, including turbine and steam generators. • Contract management and budgetary supervision (230 mill. €) • Construction supervision • Schedule control • Invoicing • Direct supervision of a team of 15 people. • Reporting to client and to the banks' financial advisor. 	2008 - 2009
Guzmán 50 MW CSP	Spain	Abantia	Services Provided: <ul style="list-style-type: none"> • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination 	-
		FCC	Services Provided: <ul style="list-style-type: none"> • Phase Array Inspections of molten salt tanks. 	

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
Solnova 1 50 MW CSP	Spain	Inabensa	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
Solnova 3 50 MW CSP		Abengoa Solar	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	
Solnova 4 50 MW CSP		Condu sav	Services Provided: • NDT inspections • Legalization of facilities and equipment	
Eureka CSP	Spain	Abengoa Solar	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	-
		Contratos y Diseños	Services Provided: • NDT inspections • Legalization of facilities and equipment	
Helio Energy 1 50 MW Heli Energy 2 50 MW	Spain	Abengoa Solar	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	-
		Inabensa	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Contratos y Diseños	Services Provided: • NDT inspections • Legalization of facilities and equipment	
Solaben 1, 2, 3 y 6	Spain	Inabensa	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
		Abengoa	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	
		Contratos y Diseños	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Dinotec	Services Provided: • NDT inspections	
Thermal Solar Power Plant PS10 11 MW y PS20 20 MW	Spain	Contratos y Diseños	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
		Abengoa Solar	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	
Extresol II 50 MW CSP	Spain	Fergón	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
Extresol III 50 MW CSP	Spain	Calprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
Casablanca 50 MW CSP	Spain	Cobra	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
San José del Valle (Vallesol) 50 MW CSP	Spain	Caprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
		Babcock	Services Provided: • NDT inspections • Legalization of facilities and equipment	
Orellana 50 MW CSP	Spain	Calprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
Olivenza 50 MW CSP	Spain	Calprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Condu sav	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
Morón 100 MW	Spain	Condu sav	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
		Fergon	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	
		Ibereolica	Services Provided: • Phase d Array and TOFD Inspection of the collector tubes	
La Africana 50 MW CSP	Spain	Ditecsa	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Fergon	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
Arenales 50 MW	Spain	Abantia	Services Provided: • NDT inspections	
		Hispánica de Caldería	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Ibereolica	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
Astexol 50 MW	Spain	Elecnor	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
Ter mosol 1 50 MW CSP Ter mosol 2 50 MW CSP	Spain	Calprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
		Fergon	Services Provided: • NDT inspections • Legalization of facilities and equipment	
		Nextera	Services Provided: • Legalization of facilities and equipment	
Solúcar 183 MW	Spain	Abengoa Salor	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	
		Mecavi	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
Andasol 1 50 MW CSP Andasol 2 50 MW CSP	Spain	COBRA	Services Provided: • Phased Array and TOFD inspections of Solar receivers and collectors.	-
La Dehesa 50 MW CSP	Spain	RENOVABLES SAMCA (TSK)	Services Provided: • Phased Array and TOFD inspections of Solar receivers and collectors.	-
Majadas 50 MW CSP	Spain	ACCIONA	Services Provided: • Phased Array Ultrasonic and TOFD inspection of the plant Power Block	-
La Florida 50 MW CSP	Spain	RENOVABLES SAMCA (TSK)	Services Provided: • Phased Array and TOFD inspections of Solar receivers and collectors.	-

PROJECT	COUNTRY	CLIENT	DESCRIPTION	PERIOD
Manchasol 1 50 MW CSP Manchasol 2 50 MW CSP	Spain	COBRA	Services Provided: • Phased Array Ultrasonic and TOFD Inspection of salt tanks.	-
Palma del Rio 1 50 MW CSP Palma del Rio 2 50 MW CSP	Spain	ACCIONA	Services Provided: • Phased Array and TOFD Inspection of the collector tubes.	-
Helio Energy 1	Spain	ACCIONA	Services Provided: • Phased Array and TOFD Inspection of the collector tubes.	-
Aste 1B 50 MW CSP	Spain	ELECNOR	Services Provided: • Phased Array and TOFD Inspection of the collector tubes and salt tanks.	-
Thermal Solar Power Plant PS10 11 MW y PS20 20 MW	Spain	Contratos y Diseños	Services Provided: • NDT inspections • Legalization of facilities and equipment	-
		Abengoa Solar	Services Provided: • Legalization of facilities and equipment • Labor Risk Coordination	
Extresol II 50 MW CSP	Spain	Fergón	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-
Extresol III 50 MW CSP	Spain	Calprisa	Services Provided: • NDT inspections • Legalization of facilities and equipment • Labor Risk Coordination	-

References in CSP Consultancy & Technical Advisory Business Line

Project	Location	Number of installations	tal Power (MW)	Type of Service
Midelt 1	Midelt, Morocco	1	200,00	LTA
Al Maktoum Solar Park	Dubai	1	800,00	ENG
Helioenergy 1	Sevilla, Spain	1	50,00	ER
Helioenergy 2	Sevilla, Spain	1	50,00	ER
Noupoort	Noupoort, South Africa	1	150,00	TA
Solacor 1	Córdoba, Spain	1	50,00	ER
Solacor 2	Córdoba, Spain	1	50,00	ER
Aste 1A	Ciudad Real, Spain	1	50,00	ER
Aste 1B	Ciudad Real, Spain	1	50,00	ER
Astexol	Badajoz, Spain	1	50,00	ER
Ilanga 2	Upington, South Africa	1	100,00	LTA
Ilanga 4	Upington, South Africa	1	150,00	LTA
Karoshhoek site 1.4	Upington, South Africa	1	150,00	LTA
Karoshhoek site 5	Upington, South Africa	1	150,00	LTA
Morón	Sevilla, Spain	1	50,00	ER
Noor II	Ouarzazate, Morocco	1	200,00	LTA
Noor III	Ouarzazate, Morocco	1	150,00	LTA
Olivenza	Badajoz, Spain	1	50,00	ER
Mojave	Arizona, USA	1	560,00	TA
Solana	Arizona, USA	1	280,00	TA
Ashalim	Israel, Israel	1	110,00	LTA
Mashabei	Israel, Israel	1	60,00	LTA
Ilanga 1	Upington, South Africa	1	100,00	LTA

Project	Location	Number of installations	tal Power (MW)	Type of Service
Termopower	Córdoba, Spain	1	50,00	ER
Villena	Villena, Spain	1	50,00	LTAR, TEP
Albiasa	Cáceres, Spain	1	50,00	ER
Arenales	Sevilla, Spain	1	50,00	LTA, LTAR
Casablanca	Badajoz, Spain	1	50,00	LTA, LTAR
Confidential	Various, Spain	3	150,00	ER, TEP
La Africana	Córdoba, Spain	1	50,00	LTA
Noor I	Ouarzazate, Morocco	1	160,00	TA
Voltiq	Spain, Spain	3	150,00	LTA
Cinco Casas	Ciudad Real, Spain	1	50,00	LTA
Extresol 3	Badajoz, Spain	1	50,00	TA, LTA
Termosol 2	Cáceres, Spain	1	50,00	TA, LTA, LTAR
Solaben 2	Cáceres, Spain	1	50,00	LTA, ER
Solaben 3	Cáceres, Spain	1	50,00	LTA, ER
Termosol 1	Cáceres, Spain	1	50,00	TA, LTA, LTAR
Valdeobispo	Cáceres, Spain	1	50,00	LTA
Valle 1	Cadiz, Spain	1	50,00	LTA, LTAR, OE, OM
Valle 2	Cadiz, Spain	1	50,00	LTA, LTAR, OE, OM
Extresol 2	Badajoz, Spain	1	50,00	TA, LTA
Manchasol 1	Ciudad Real, Spain	1	50,00	TA, LTA
Manchasol 2	Ciudad Real, Spain	1	50,00	TA, LTA, LTAR
Valsolar	Bajadoz, Spain	1	50,00	TA
Extresol 1	Badajoz, Spain	1	50,00	TA, LTA
PS10	Sevilla, Spain	1	10,00	TA, LTA, OM
PS20	Sevilla, Spain	1	20,00	LTA, OM

Type of provided services:

- (LTA) Lender's Technical Advisory. This service usually includes works previous and post financial close:
 - Resource analysis
 - Technical & Economical evaluation
 - Contractual assessment
 - Construction progress supervision
 - Provisional and final acceptance test certificates
 - Yearly operation & performance monitoring until final acceptance
- (LTAR) Lender's Technical Advisory for refinancing.
- (TA) Technical Assistance and consultancy services
- (OE) Owner's Engineer

- (ER) Expert Report for legal actions
- (TEP) Technical Evaluation for Purchasing processes
- (OM) Operational Monitoring
- (RS) Resource Study
- (URS) Update Resource Study
- (ENG) Engineering services.