

Company presentation

March 2023



steam
geothermal energy

WHO'S STEAM?

- We are an **Italian consultancy company** with a 35-year history in geothermal
- Our experts will become your team for **geology, geochemistry, geophysics and engineering**
- We support our customers with end-to-end services:
 - Resource assessment and management
 - Drilling engineering and supervision
 - Feasibility studies and environmental assessments
 - Engineering and construction management
 - O&M support and capacity building



OPERATED IN MOST OF THE GEOTHERMAL FIELDS





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STEAM's presence in international geothermal markets is increasingly that of a global player.



IN THE LAST 8 YEARS

25+

NATIONS

20+

FEASIBILITY STUDIES

30+

RESOURCE ASSESSMENTS

40+

WELLS COMMISSIONED

10+

DRILLING SUPERVISIONS

80+

KMs OF GATHERING SYSTEMS ENGINEERED

250+

PLANT MWs SUPERVISED

400+

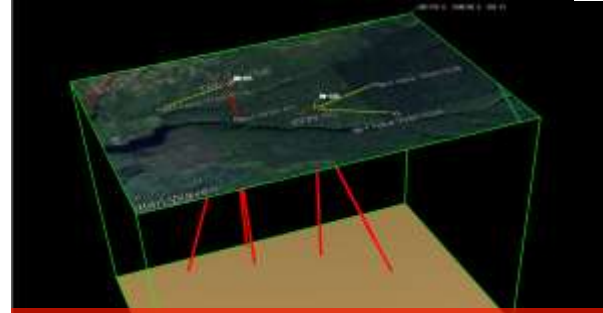
PLANT MWs ENGINEERED



RESOURCE ASSESSMENT AND GEOFLUID MANAGEMENT



ITALY, TURKEY, CROATIA –
RESOURCE ASSESSMENT



DOMINICA – 10 MW WOTTEN
WAVEN GEOT. MASTERPLAN



INDONESIA, MOZAMBIQUE -
GEOCHEMICAL CONSULTANCY



ITALY – LITHIUM EXTRACTION
PROJECT

YEAR: 2018-2022

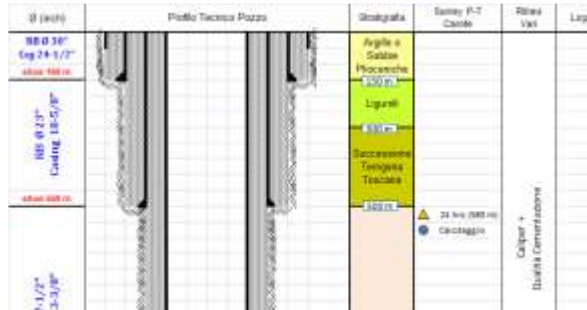
CAPACITY: 5+ MW each

TECHNOLOGY: Binary, flash and lithium extraction

ACTIVITIES:

- Resource assessment through literature review and geological, geochemical and geophysical data interpretation
- Review and revision of the geothermal exploitation masterplan
- Geological, Geophysical and Geochemical consultancy for field results interpretation
- Assessment of the Lithium in Place potential

DRILLING CONSULTANCY AND MANAGEMENT



ITALY – ZERO-EMISSION PLANTS
DRILLING PROGRAM



DJIBOUTI – ARTA GEOTHERMAL
PROJECT DRILLING PROGRAM



ITALY – 2 GRADIENT WELLS
DRILLING SUPERVISION



ITALY – TENDERING PROCEDURE
FOR DRILLING CONTRACTING

YEAR: 2019-2022

CAPACITY: 5+ MW each

TECHNOLOGY: Binary, flash

ACTIVITIES:

- Drilling engineering
- Drilling program for permitting, financing, and execution
- Preparation and assistance for the drilling services tendering procedure
- Technical alignment of drilling contractors' proposals
- Supervision to drilling

OWNER'S CONSULTANCY – PROJECT DEVELOPMENT SUPPORT



ITALY – SORGENIA 5 MW
SARAGIOLO BINARY PLANT



NICARAGUA - VOLCAN
COSIGUINA GEOTHERMAL



ITALY - SEVERAL ZERO-
EMISSION BINARY PLANTS



KENYA – MINERAL EXTRACTION
FROM GEOTHERMAL BRINE

YEAR: 2011-2022

CAPACITY: 5+ MW each

TECHNOLOGY: Binary, flash and mineral extraction

ACTIVITIES:

- Environmental and social assessment
- Permitting (Research Permit, Exploration License, Recognition of National Character,...)
- Budgeting, including FEED, market scouting, and pre-qualification activities
- Pre-feasibility and feasibility studies for both power production, cogeneration, heat pumps, and mineral extraction

OWNER'S ENGINEERING – PROCUREMENT AND PROJECT EXECUTION



YEAR: 2015-2022

CAPACITY: 12 to 160 MW each

TECHNOLOGY: Binary, flash and combined

ACTIVITIES:

- Project management
- Plant concept design
- Technical specifications for the equipment
- Procurement management (EPC/supply)
- Design review during project execution
- HazOp and risk assessment
- Off-site technical support to erection, installation, commissioning and testing
- Site assistance during erection, installation, commissioning and testing

ENGINEERING, CONSTRUCTION AND COMMISSIONING SUPPORT



FRANCE, AZORES, TURKEY –
BINARY GATHERING SYSTEM



CROATIA – 17 MW VELIKA
CIGLENA BINARY PLANT



IRAN – 5 MW SABALAN
FLASH PLANT



KENYA – MENENGAI I + OLKARIA
I-U6 WELLS/GATHERING SYS.

YEAR: 2014-2022

CAPACITY: 3 to 160 MW each

TECHNOLOGY: Binary and flash

ACTIVITIES:

- Detail multidisciplinary engineering of:
 - Resource gathering system
 - Power plant
 - Grid interconnection facility
- Commissioning and testing of:
 - Wells
 - Resource gathering system
 - Power plant

GEOTHERMAL PROJECTS IN EAST AFRICA

Location	Project name	Scope	Funded by	Size [MW]	Year
Djibouti	Lac-Abhé and Pk20 Ambado	Application for direct use for Geothermal Development at Lac-Abhé and Pk20 Ambado Prospects - For GRMF	ODDEG	-	2023 - ongoing
Djibouti	North-Ghoubbet	Application Form for Surface Studies in North-Ghoubbet Geothermal Prospect (Djibouti) - For GRMF	ODDEG	-	2021-ongoing
Kenya	Olkaria I Unit 6	Commissioning of the geothermal wells and of the Steam and Brine Gathering and Reinjection System	JICA	83	2021 - ongoing
Kenya	Olkaria I Units 1, 2 & 3	Project Management and Owner Engineering (including Plant design, Assistance in the procurement)	JICA	45	2015 - 2020
Kenya	Olkaria	Mineral extraction from brines in Olkaria	KenGen	-	2021 - ongoing
Kenya	Olkaria V Units 1&2	Project Management and Owner Engineering (including Plant design, Assistance in the procurement, Supervision to the construction, commissioning and DNP)	JICA	160	2015 - 2021
Kenya	Menengai I	Engineering review, Project Management and Supervision of manufacturing and site activities	-	35	2019 - ongoing
Kenya	Menengai	Commissioning of the geothermal wells and of the Steam and Brine Gathering and Reinjection System	-	105	2019 - ongoing
Mozambique	Tete and Metangula	Mapping Northern Mozambique's Geothermal Potential	DANIDA	TBD	2020 - ongoing





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