



PRESENTATION OF ALGERIAN ENERGY COMPANY

AEC

Algerian Energy Company Spa

CHAPTER I

INTRODUCTION

INTRODUCTION

The Algerian Energy Company (AEC), is a public joint-stock company established in 2001. Since 2018, AEC has been wholly owned by Sonatrach, with a share capital of 20 billion DZD.

AEC's main mission is to promote and develop large-scale projects, either independently or in partnership with national and international companies. The primary areas of focus include:

- Seawater Desalination, which is AEC's principal activity;
- Electricity Generation.



CHAPTER II

AEC's PORTFOLIO

AEC's PORTFOLIO

AEC's project portfolio includes 14 seawater desalination plants, one of them with a combined cycle (power generation and seawater desalination). These projects are the result of several government programs.

The government programs have been launched consecutively as follows:

- **11 projects** under the National Desalination Program, initiated as DBOO (Design, Build, Own, Operate) projects in partnership with foreign companies.
- **03 projects** under the National Emergency Program, initiated as EPC (Engineering, Procurement, Construction) projects with Algerian contractors.

AEC's PORTFOLIO

National Desalination Program :

The government decided by 2002, to launch a significant Seawater Desalination Program to meet the increasing demand for potable water. This program consists of 11 plants distributed along the coastline with a total capacity of 2.16 million m³/day, in which AEC holds shares ranging from 30% to 49%, in partnership with international companies.

ARZEW



SKIKDA



FOUKA



BENI SAF



MOSTAGANEM



HAMMA



CAP DJINET



MACTAA



SOUK TLETA



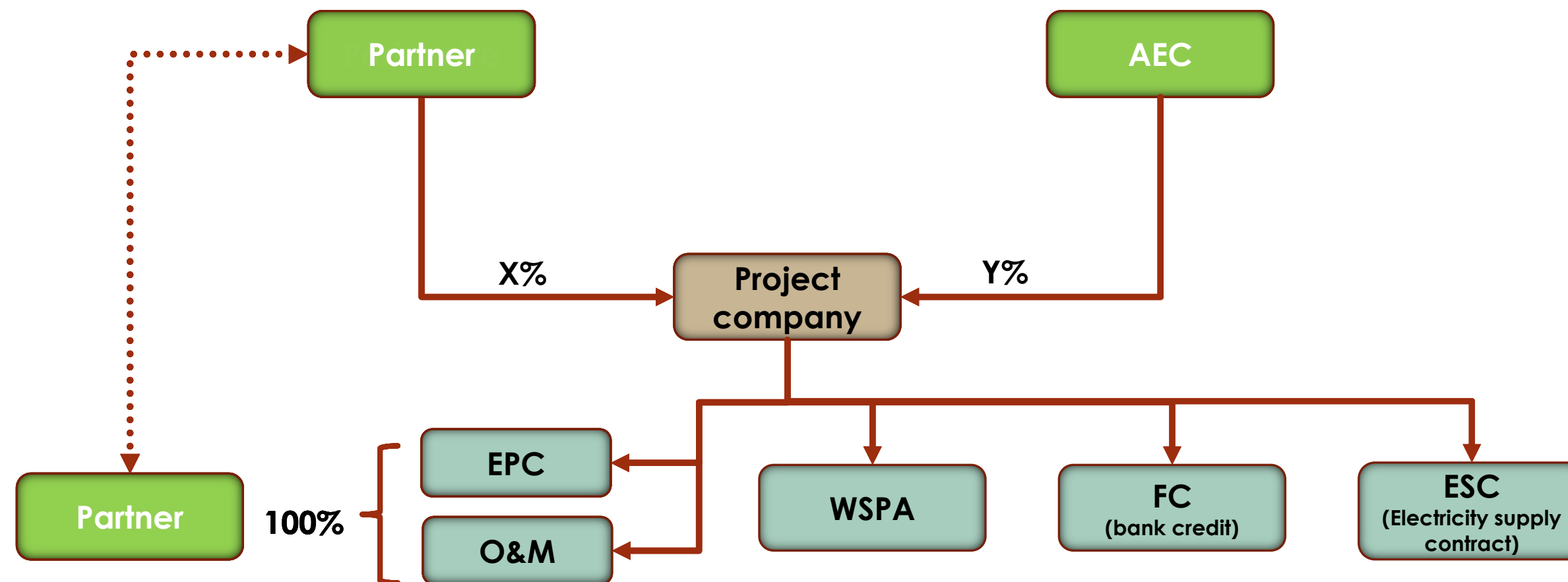
HONAINE



TENES

AEC's PORTFOLIO

The eleven (11) projects under the national desalination program were launched under DBOO (design, build, own, operate) contractual agreements with foreign partners, as illustrated in the diagram below :



AEC's PORTFOLIO



AEC's PORTFOLIO

KAHRAMA plant capacity : 86 880 m³/j

Denomination:	Kahraba Oua Ma (KAHRAMA Spa) AEC 100%.
Localisation :	Arzew industrial zone.
Creation:	January 29, 2002.
Investment:	401 Million USD.
Project Type:	Complex consisting of a gas turbine power plant and a seawater desalination plant.
Process:	MSF.
Financing:	Equity:100% . Refinancement du projet (BAD) : 14.779.537.298 DA.
Commissioning:	19 février 2006.

HAMMA plant capacity : 200 000 m³/j

Denomination:	Hamma Water Desalination (HWD Spa).
Shareholders:	AEC: 30% VEOLIA WTS HAMMA Holding Inc : 70%
Localisation:	Sablettes Hamma, Wilaya d'Alger.
Creation:	17 December 2003.
Investment:	258 Million USD.
Project Type:	Seawater desalination plant.
Process:	Osмосe inverse.
Financing:	Equity 30 % 65 MUSD Bank credit (OPIC) 70 % 193 MUSD
Plant operator:	VEOLIA WTS
Commissioning:	10 juin 2008.

AEC's PORTFOLIO

SKIKDA plant capacity : 100 000 m³/j

Denomination:	Aguas de Skikda (ADS Spa).
Shareholders:	AEC : 49% GEIDA Skikda SL: 51%
Localisation:	Industrial Zone, wilaya of Skikda.
Creation:	06 December 2009.
Investment:	136,1 Million USD.
Project Type:	Seawater desalination plant.
Process:	Osмосe inverse.
Financing:	Equity 20% USD 27.2 million Bank loan (BNA) 80% USD 108,8 million
Plant operator:	UTE Desaladora Operaciony Mantenimiento (COBRA)
Commissioning:	01 October 2009

BENI SAF plant capacity : 200 000 m³/j

Denomination:	Beni Saf Water Company (BWC Spa).
Shareholders:	AEC : 49% GEIDA beni saf (COBRA) : 51%
Localisation :	Chatt El Hilal, Beni Saf, Wilaya de Ain-Temouchent.
Creation:	17 December 2004.
Investment:	240 Million USD.
Process:	Osмосe inverse.
Financing:	Equity 20% 48 MUSD Bank Credit (BEA) 80% 192 MUSD
Plant operator:	UTE Desaladora Operaciony Mantenimiento (COBRA)
Commissioning:	September 22, 2010

AEC's PORTFOLIO

SOUK TLETA plant capacity : 200 000 m³/j

Denomination:	ALMIYAH ATTILEMCANIA (AA Spa).
Shareholders:	AEC : 49% TDIC (Hyflux 30% / Malakoff 70%) : 51%
Localisation :	Plage ouled ben ayad souk tlata, Wilaya de Tlemcen.
Creation:	April 30, 2007.
Investment:	251 Million USD.
Process:	Osmose inverse.
Financing:	Fonds propres 20% 50,2 MUSD Emprunt bancaire (BNA) 80% 200,9 MUSD
Plant operator:	HYFLUX TJSB .
Commissioning:	April 13, 2011.

FOUKA plant capacity : 120 000 m³/j

Denomination:	Myah Tipaza SpA (MT Spa).
Shareholders:	AEC : 49% AWI SL (SNS Lavalin 50% / ACCIONA AGUA 50%) : 51%
Localisation :	Commune de Fouka, wilaya de Tipaza.
Creation:	21 May 2007.
Investment:	180,5 Million USD.
Process:	Osmose inverse.
Financing:	Equity 20% 36,1 MUSD Bank credit (CPA) 80% 144,4 MUSD
Plant operator:	(SNC-LAVALIN-ACCIONA)
Commissioning:	July 12, 2011.

AEC's PORTFOLIO

CAP DJINET plant capacity : 100 000 m³/j

Denomination:	Shariket Miyen Ras Djinet (SMD Spa).
Shareholders:	AEC : 49% GS INIMA / FCC AQUALIA : 51%
Localisation:	Cap-Djinet , wilaya de Boumerdes.
Creation:	07 juin 2006.
Investment:	138 Million USD.
Process:	Osiose inverse.
Financing:	Equity 20% 27,6 MUSD Bank credit (BNA) 80% 110,4 MUSD
Plant operator:	UTE O&M (Filiale INIMA-AQUALIA)
Commissioning:	04 July 2012

MOSTAGAMEN plant capacity : 200 000 m³/j

Denomination:	Shariket Tahliyat Miyah Mostaganem (STMM Spa).
Shareholders:	AEC : 49% GS INIMA / FCC AQUALIA : 51%
Localisation:	Plage chelif, wilaya de Mostaganem.
Creation:	07 juin 2006.
Investment:	227,1 Million USD.
Process:	Osiose inverse.
Financing:	Equity 20% 45,4 MUSD Bank credit (BNA) 80% 181,7 MUSD
Plant operator:	UTE O&M Mostaganem (Filiale GSINIMA-AQUALIA)
Commissioning:	September 27, 2011

AEC's PORTFOLIO

HONAINE plant capacity : 200 000 m³/j

Denomination:	Myah Bahr Honaine SpA (MBH Spa).
Shareholders:	AEC : 49% GEIDA TLEMCCEN SL : 51%
Localisation:	Plage de Tafsout de Honaine, wilaya de Tlemcen.
Creation:	31 July 2006.
Investment:	291,3 Million USD.
Process:	Reverse Osmosis.
Financing:	Equity 20% 58,3 MUSD Bank credit (CPA) 80% 233 MUSD
Plant operator:	UTE desaladora honaine operaciony mantenimiento
Commissioning:	12 July 2012

TENES plant capacity : 200 000 m³/j

Denomination:	Ténès Lilmiyah (TL Spa).
Shareholders:	AEC : 49% BEFESA AGUA SAU : 51%
Localisation:	Mainis, Ténès, wilaya de Chlef.
Creation:	15 September 2008.
Investment:	263,9 Million USD.
Process:	Reverse Osmosis.
Financing:	Equity 20% 52,8 MUSD Bank credit (CPA) 80% 211,1 MUSD
Plant operator:	UTE desaladora tenes operaciony mantenimiento.
Commissioning:	01 June 2015

AEC's PORTFOLIO

MAGTAA plant capacity : 500 000 m³/j

Denomination:	Tahlyat Myah Magtaa (TMM Spa).		
Shareholders:	AEC : 43% ADE : 10% Menaspring : 47%		
Localisation:	Commune de Marsa El Hadjadj , Wilaya d'Oran.		
Creation:	17 June 2008.		
Investment:	492 MUSD.		
Process:	Reverse Osmosis..		
Financing:	Equity	30%	147,6 MUSD
	Bank credit (BNA)	70%	344,4 MUSD
Plant operator:	TMM Spa		
Commissioning:	July 10, 2016.		

AEC's PORTFOLIO

National Emergency Program:

In response to the continuous growth of demand for potable water and the impact of climate change on the Mediterranean coast, the Algerian government has decided in 2021, to launch the National Emergency Program, with a total production capacity of 150 000 m³/day. This initiative will increase the contribution of desalination plants in Algeria to 18% of the drinking water distributed.



Bateau cassé with a of 10,000 m³/day



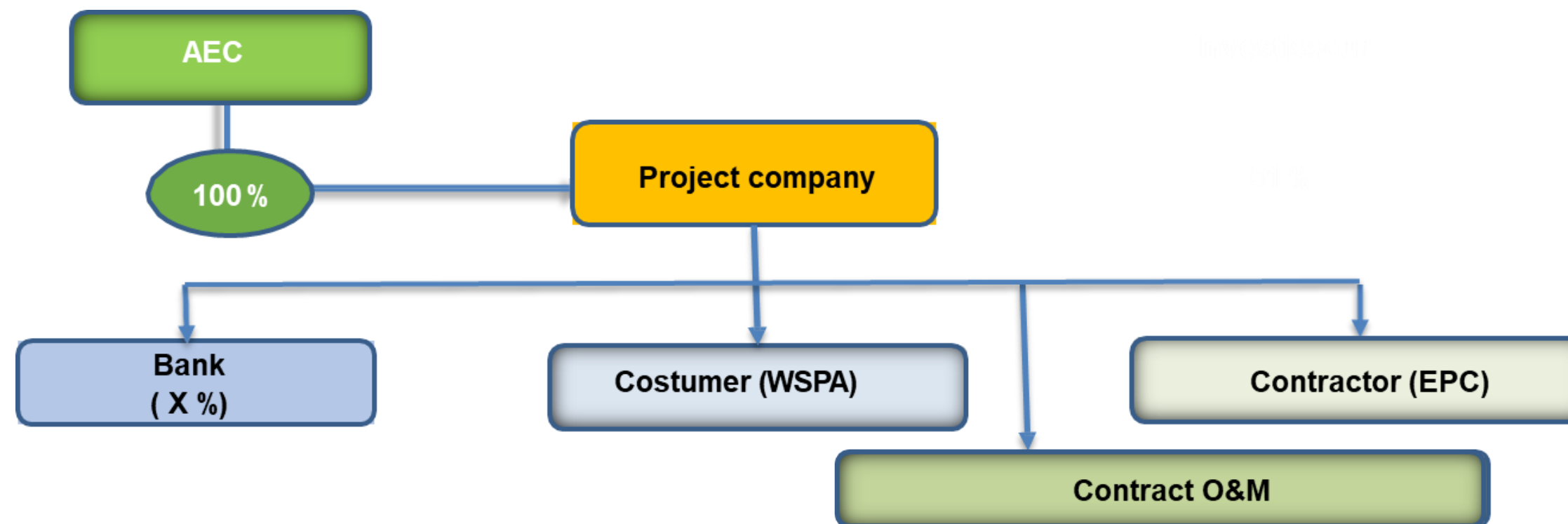
Corso with a capacity of 80,000 m³/day



El Marsa with a capacity of 60,000 m³/day

AEC's PORTFOLIO

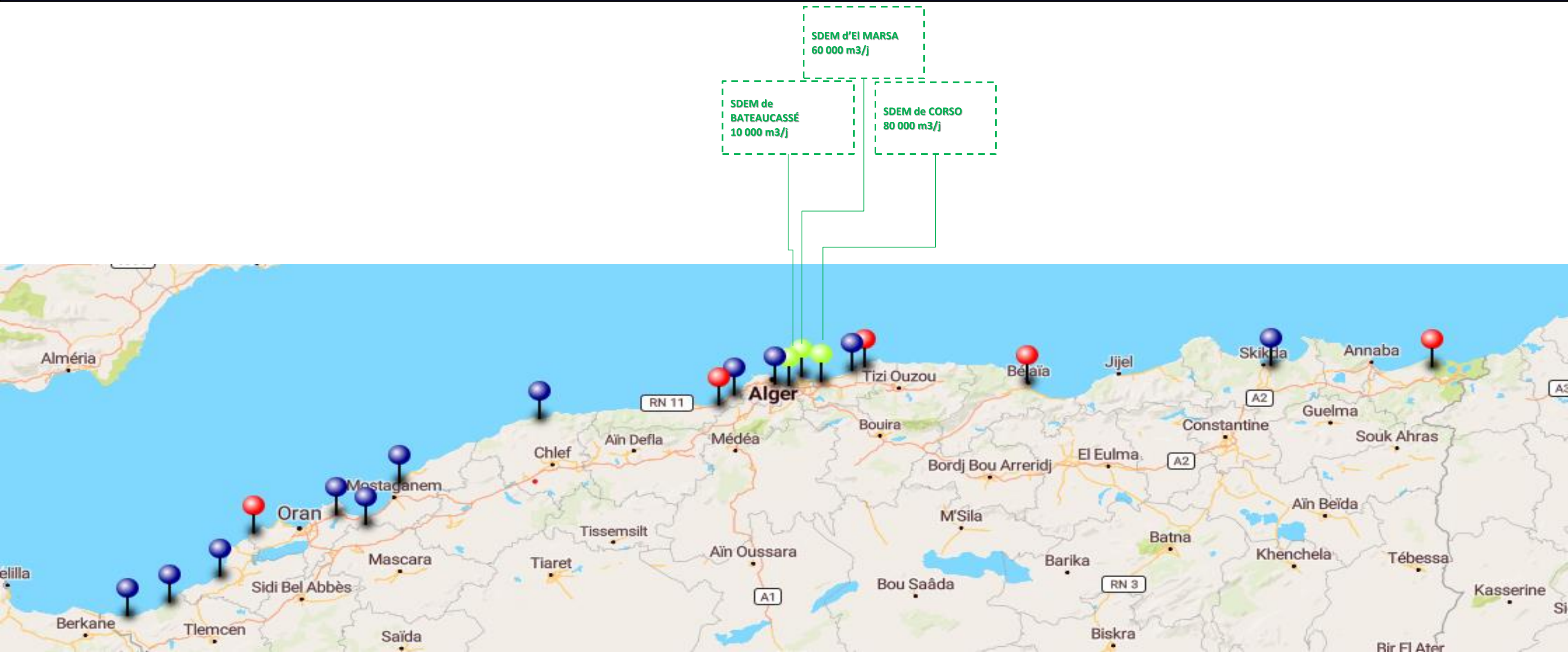
The three (03) projects under the national emergency program were launched under EPC (Engineering, Procurement, Construction) contractual agreements with Algerian contractors, as illustrated in the diagram below:



Financing:

- **Bateau cassé:** 100% AEC.
- **El Marsa and Corso:** 30% AEC / 70% Bank.

AEC's PORTFOLIO



AEC's PORTFOLIO

BATEAU CASSE Plant : 10 000 m³/j	
Signing of the EPC Contract	07/10/2021
Project owner	Algerian Energy Company (AEC)
Contractor	Cosider Canalisations
Costumer	Algérienne Des Eaux ADE
Technologist	Sarl MECSAL
Production Capacity	10 000 m ³ / day
Technology	Reverse Osmosis
Contractual arrangement	EPC/O&M
Amount of the EPC Contract	2 953 772 995,33 DZD HT
Financing	Equity (100%)
Land (area)	0,9 ha
Areas to be served	Bordj El Kiffan
Localization	Bateau Cassé (Commune de Bordj El Kiffan)

EL MARSA Plant : 60 000 m³/j	
Signing of the EPC Contract	14/10/2021
Project owner	Algerian Energy Company (AEC)
Contractor	Cosider Canalisations
Costumer	Algérienne Des Eaux ADE
Technologist	MES-GMBH
Production Capacity	60 000 m ³ / day
Technology	Reverse Osmosis
Contractual arrangement	EPC/O&M
Amount of the EPC Contract	11 473 132 276,28 DZD HT
Financing	Equity (30%)/ loan (70%)
Land (area)	4,98 ha
Areas to be served	East Algiers
Localization	El MARSA (Commune de Ain-Taya)

AEC's PORTFOLIO

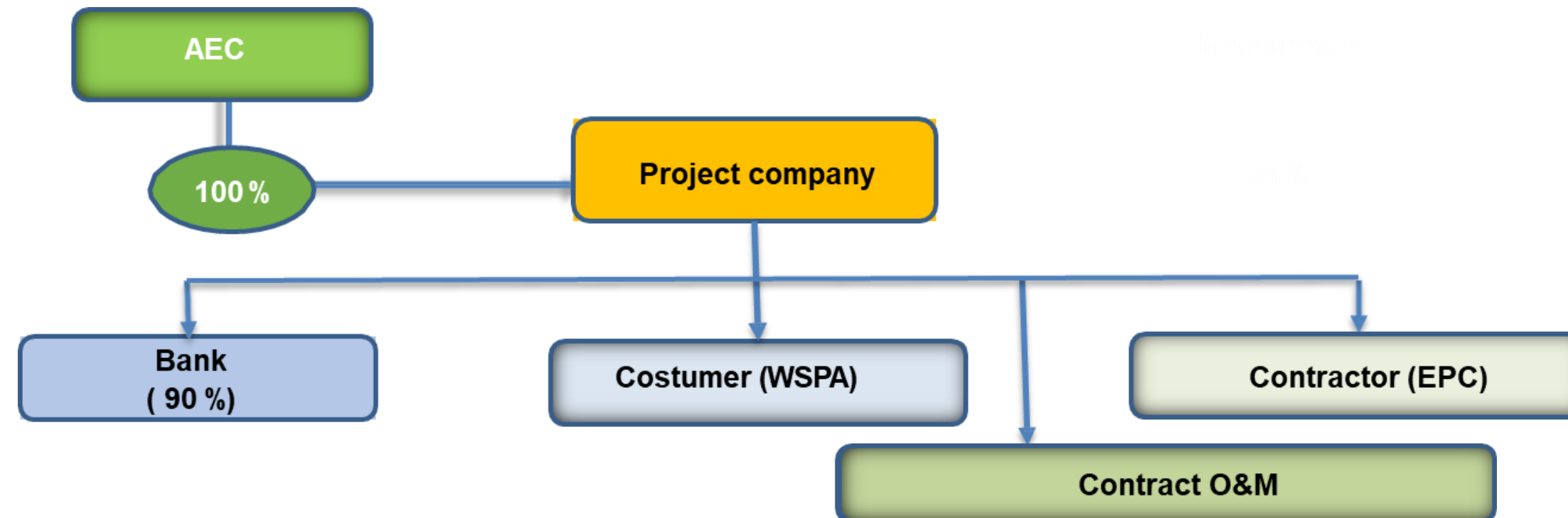
CORSO Plant : 80 000 m³/j	
Signing of the EPC Contract	22/12/2021
Project owner	Algerian Energy Company (AEC)
Contractor	ENGCB
Costumer	Algérienne Des Eaux ADE
Technologist	METITO
Production Capacity	80 000 m ³ / day
Technology	Reverse Osmosis
Contractual arrangement	EPC/O&M
Amount of the EPC Contract	14 799 901 130,00 DZD HT
Financing	Equity (30%)/ Loan (70%)
Land (area)	6.2 ha
Areas to be served	Boumerdès
Localization	Corso/Wilaya de Boumerdès

CHAPTER III

The Complementary Program

The Complementary Program

In addition to the 14 desalination plants in AEC's portfolio, the Algerian government launched the National Complementary Program includes 5 megaprojects currently in progress under an EPC (Engineering, Procurement, Construction) contractual agreements with Algerian contractors, as illustrated in the diagram below :



These projects are scheduled to be delivered by the end of 2024, and will increase the total capacity by 1.5 million m³/day.

AEC's PORTFOLIO



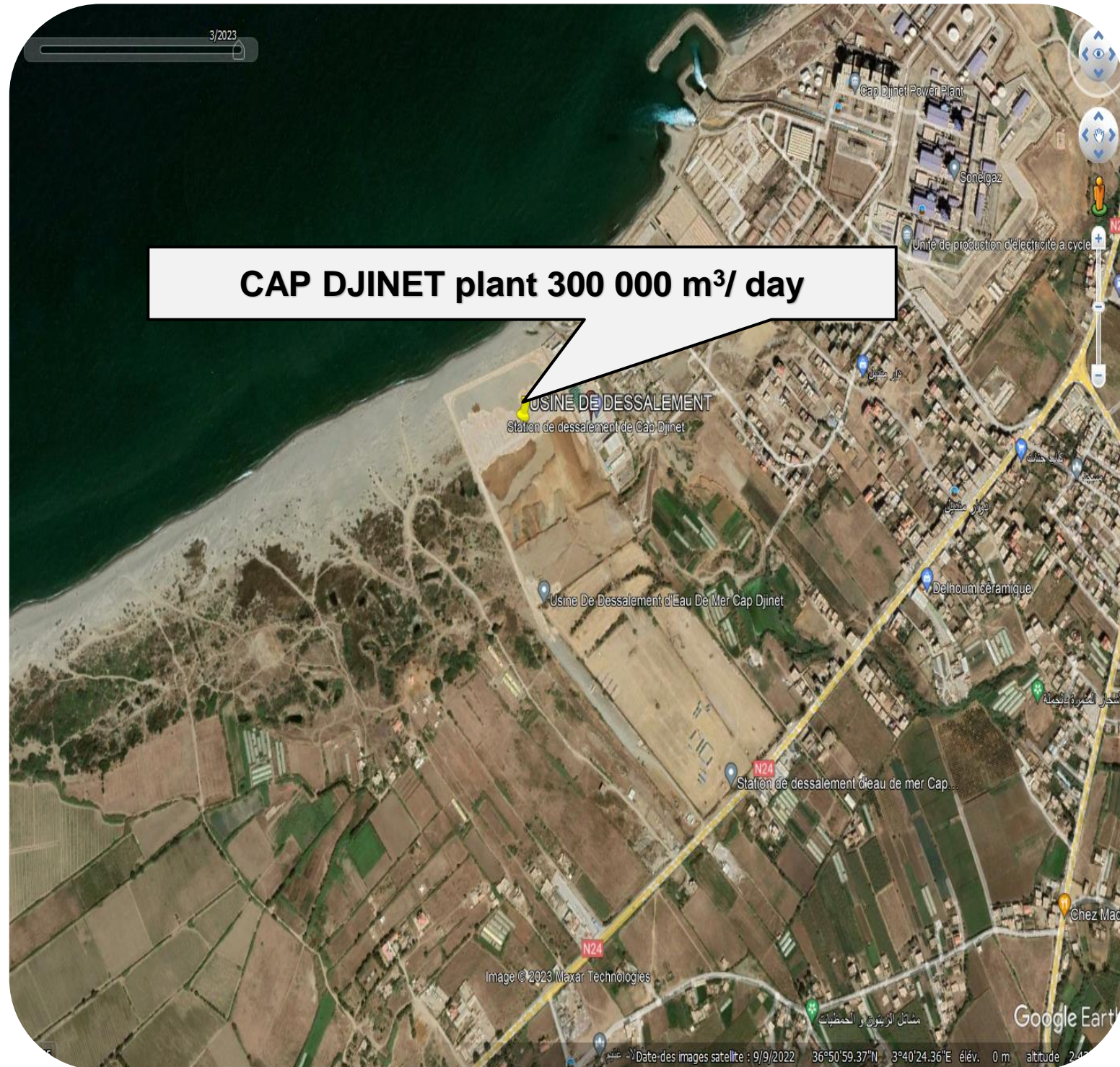
The Complementary Program



Technical project sheet

Décision	Interministerial Council meeting of August 1st,2021
Client	MIAH WAHRANE SPA
Contractor	GCB / GTP group
Production capacity	300 000 m ³ /j
Technology	Osmose Inverse
Contractual arrangement	EPC
Area	10 ha
Areas to be served	Oran
Location	Cap Blanc

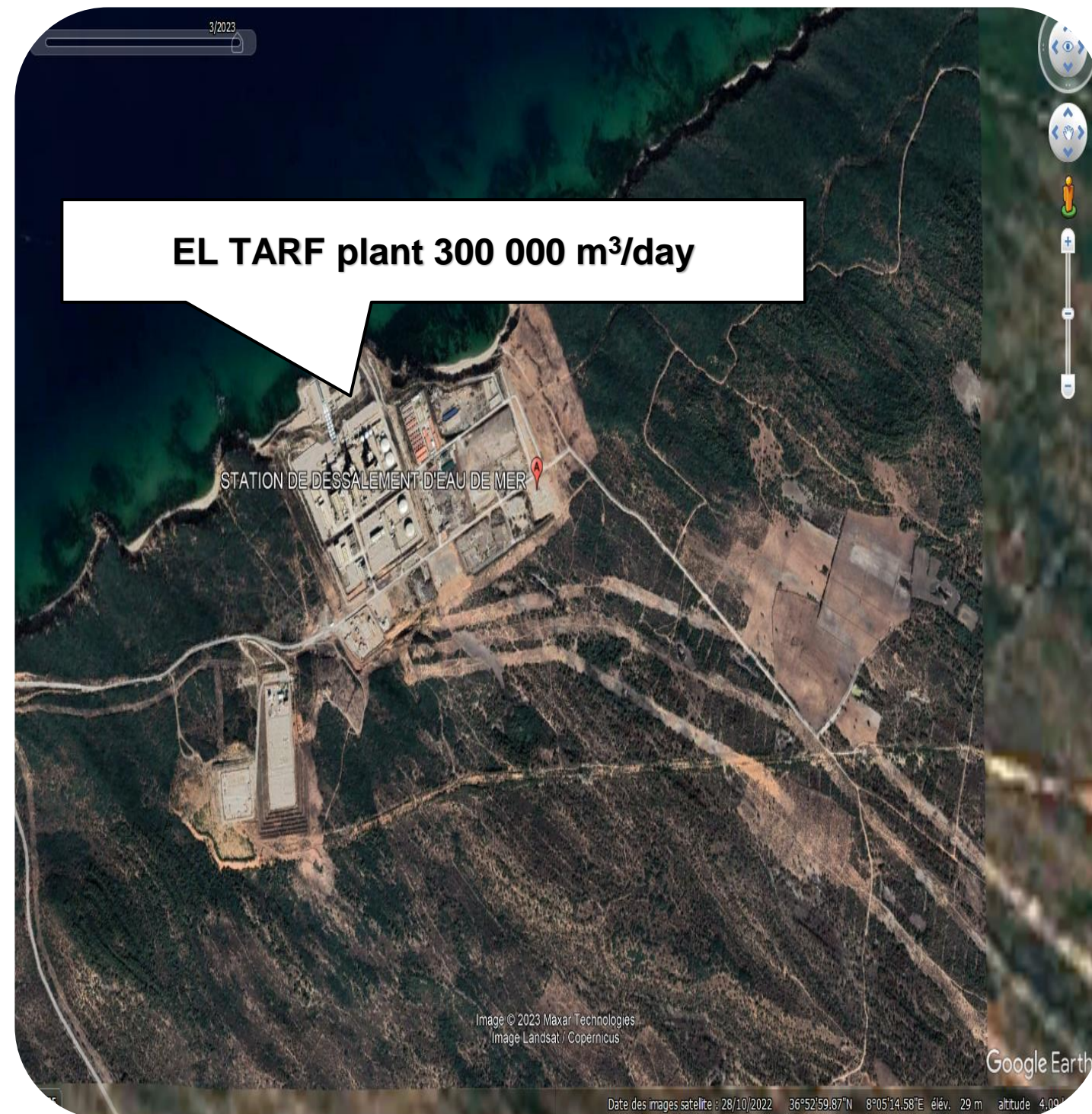
The Complementary Program



Technical project sheet

Décision	Interministerial Council meeting of August 1st, 2021
Client	MIAY CAP DJENET SPA
Contractor	GCB / GTP group
Production capacity	300 000 m ³ /day
Technology	Reverse Osmosis
Contractual arrangement	EPC
Area	16 HA
Areas to be served	Boumerdes
Location	CAP DJENET

The Complementary Program



Technical project sheet

Décision	Conseil interministériel du 01 Août 2021
Client	MIAH EL TAREF SPA
Builder	SARPI / ENAC group
Production capacity	300 000 m ³ /j
Technologie	Osмосe Inverse
Contractual arrangement	EPC
Area	11 ha
Areas to be served	El Tarf, Annaba, Guelma et Souk Ahras
Location	Koudiet edraouch, Berrihane, El Tarf.

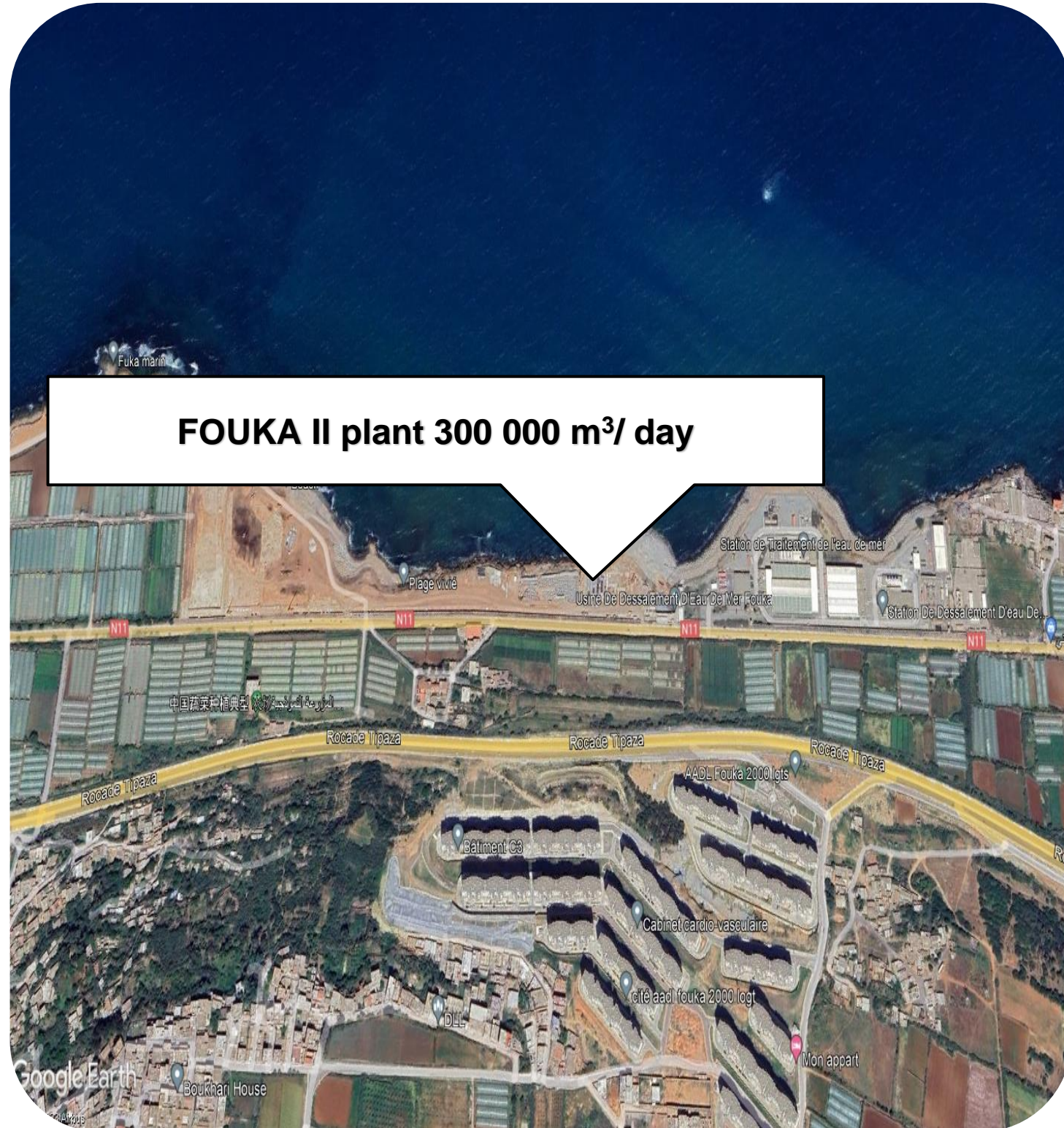
The Complementary Program



Technical project sheet

Décision	Conseil interministériel du 01 Août 2021
Client	Algerian Energy Company SPA
Contactor	Sarpi-Enac group
Production capacity	300 000 m ³ /j
Technology	Osmose Inverse
Contractual arrangement	EPC / O&M
Area	22ha
Areas to be served	Bejaïa
Location	Tighramt, commune de Toudja, Wilaya de Bejaia

The Complementary Program



Technical project sheet

Décision	Conseil interministériel du 01 Août 2021
Client	MIAH FOUKA SPA
Contractor	COSIDER Canalisations
Production capacity	300 000 m ³ /j
Technology	Osмосe Inverse
Contractual arrangement	EPC
Area	7.15 ha
Areas to be served	Alger/Blida
Location	Fouka Marine (Tipaza)

Long Term Plant Projects

A new seawater desalination program has been decided by the government for the period '2024-2030' to achieve the objective of covering 60% of the national territory's drinking water needs. This program involves the construction of six (06) new seawater desalination plants, each with a capacity of 300,000 m³/day, in the following provinces:

Tlemcen: to ensure water supply for the provinces of Tlemcen, Sidi Bel Abbès, and Saida ;

Mostaganem: to ensure water supply for the provinces of Mostaganem, Relizane, Tiaret, and Tissemsilt ;

Chlef: to ensure water supply for the provinces of Chlef, Medea, and Ain Defla ;

Tizi ousou (TAMDA): to ensure water supply for the provinces of Tizi Ouzou and Boumerdes ;

Jijel: to ensure water supply for the provinces of Jijel, Mila, and Constantine ;

Skikda: to ensure water supply for the provinces of Skikda, Constantine, Guelma, and Oum El Bouaghi.

Thank you for your attention!