Solar Thermal Analysis and Review Team (START) Mission to Algiers September 14-17

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SolarPACES

Solar Power And Chemical Energy Systems

Program of NEAL – SolarPACES Conference Sunday Sep 14

- Welcome and opening
- Presentation of Neal and its Strategy for market introduction of solar-gas in Algéria.
- Progress of the feed in law
- Power and gas expansion plans and connection to Europe.
- Solar thermal technology options for Algéria
  - Solar Dishes
  - Solar Towers
  - Solar Troughs
  - Integration of Solar power with Gas Combined Cycles (Dr. Markus Eck, DLR)
- Preselected project Sites for a first ISCCS project
- Solar radiation potential in Algeria (radiation maps)

Afternoon Working Session

- Presentation of the prefeasibility study for the First Algerian Project

Site Visits

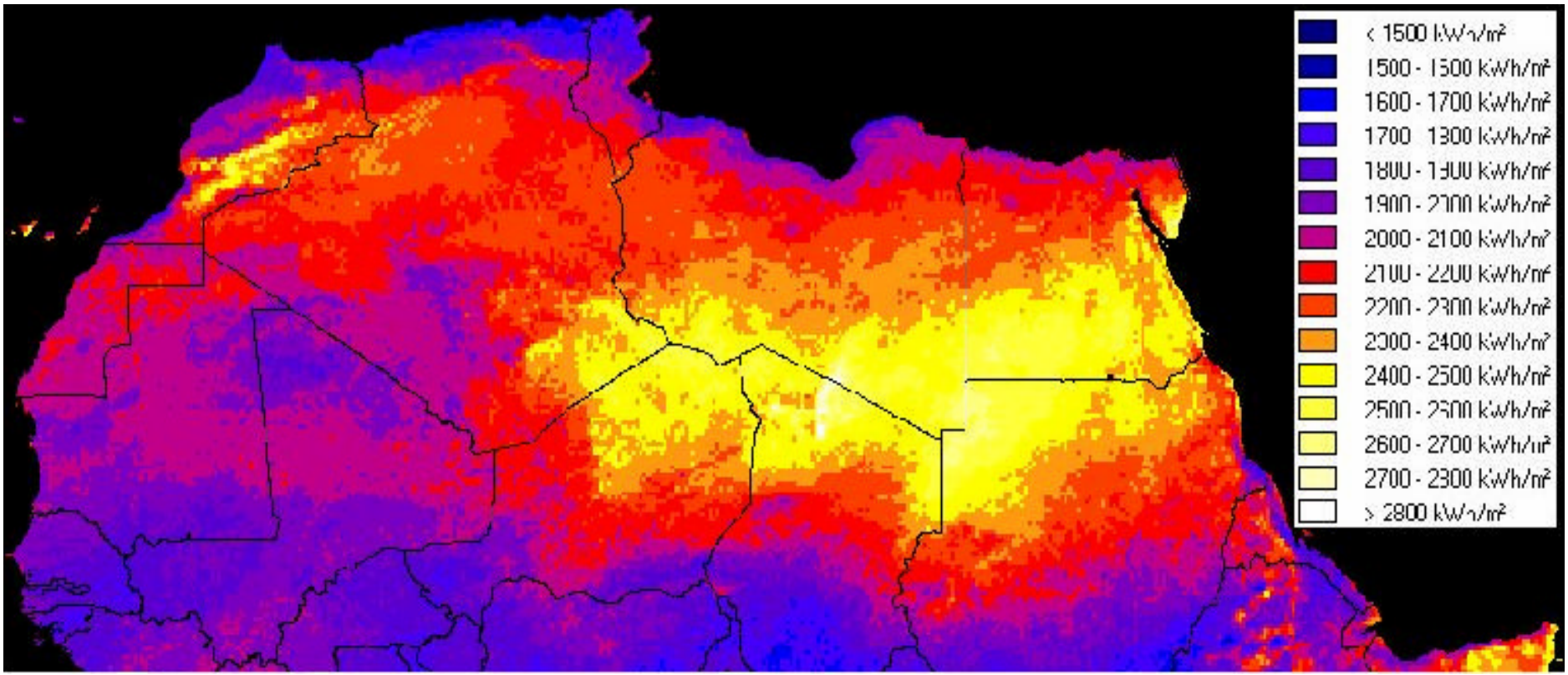
Monday September 15th

08h45	Departure to Biskra (airflight)
10h00	Arrival
10h45	Departure by cars to Djemaa (potential site)
13h00	Arrival to Djemaa and lunch
14h-15h	Visit of the site
15h00	Return to Meghaier (potential site)
16h-17h	Visit of the site
17h30	Departure to El Oued
18h30	Arrival to El Oued and to the hotel for the night

Tuesday September 16th

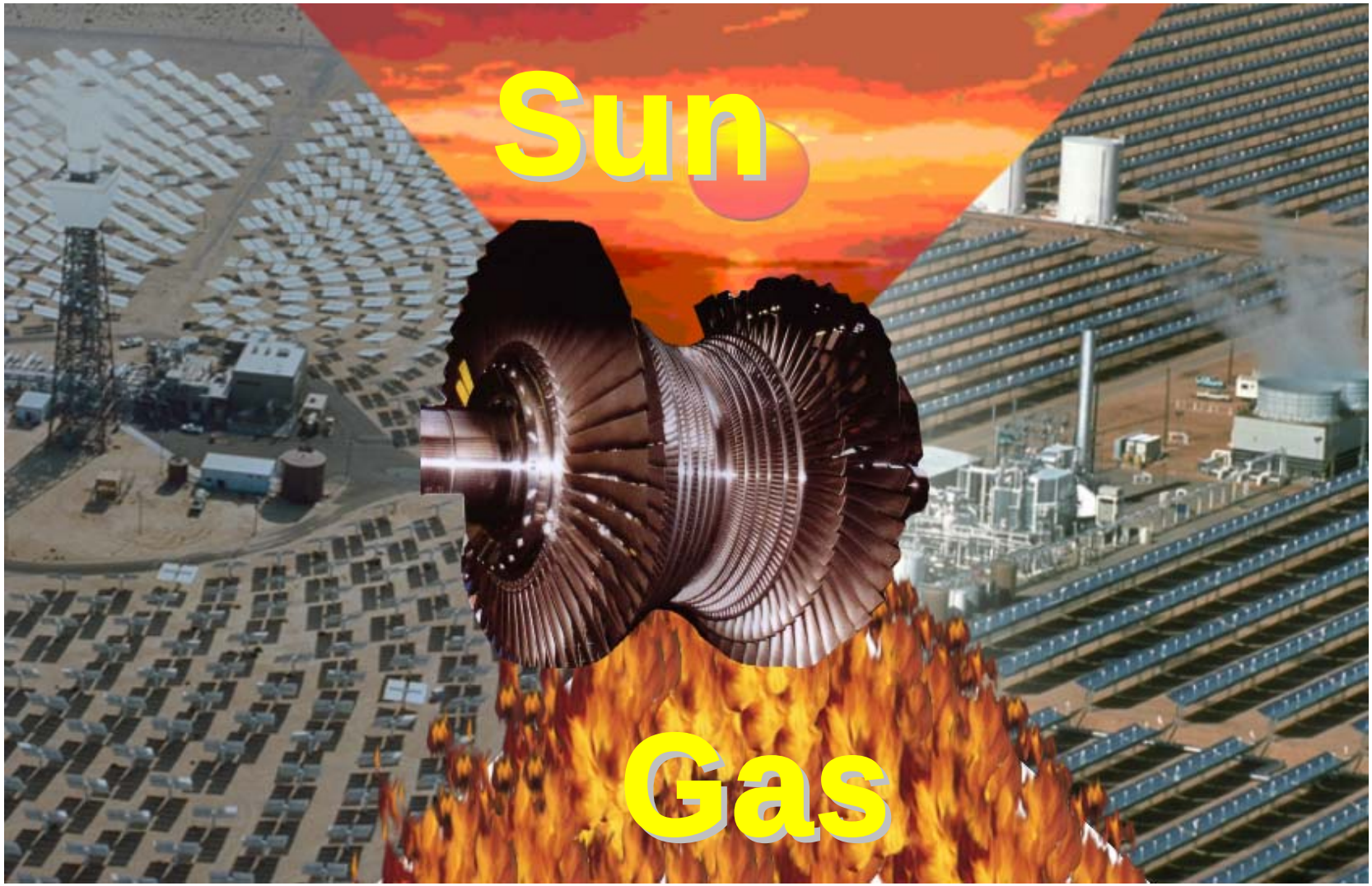
08h10	Visit of potential site in El Oued
10h30	Departure to Biskra
13h00	Arrival to Biskra and lunch
16h00	Departure to Algiers (airflight)

Algeria has Largest Long Term Land Potential for Solar Power

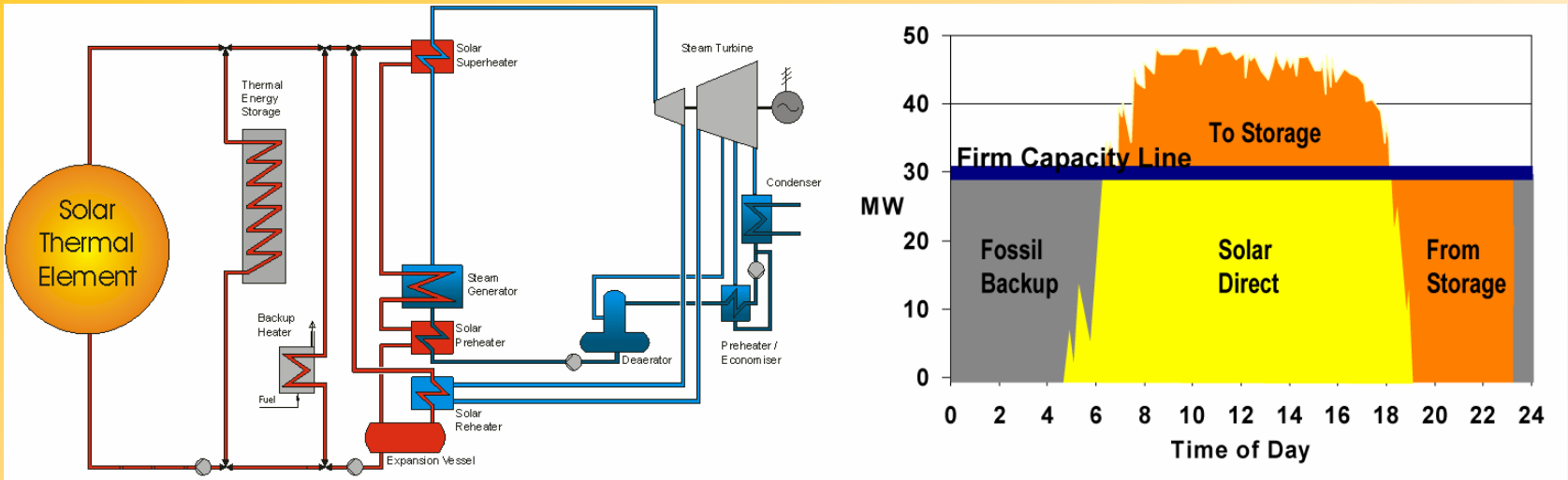


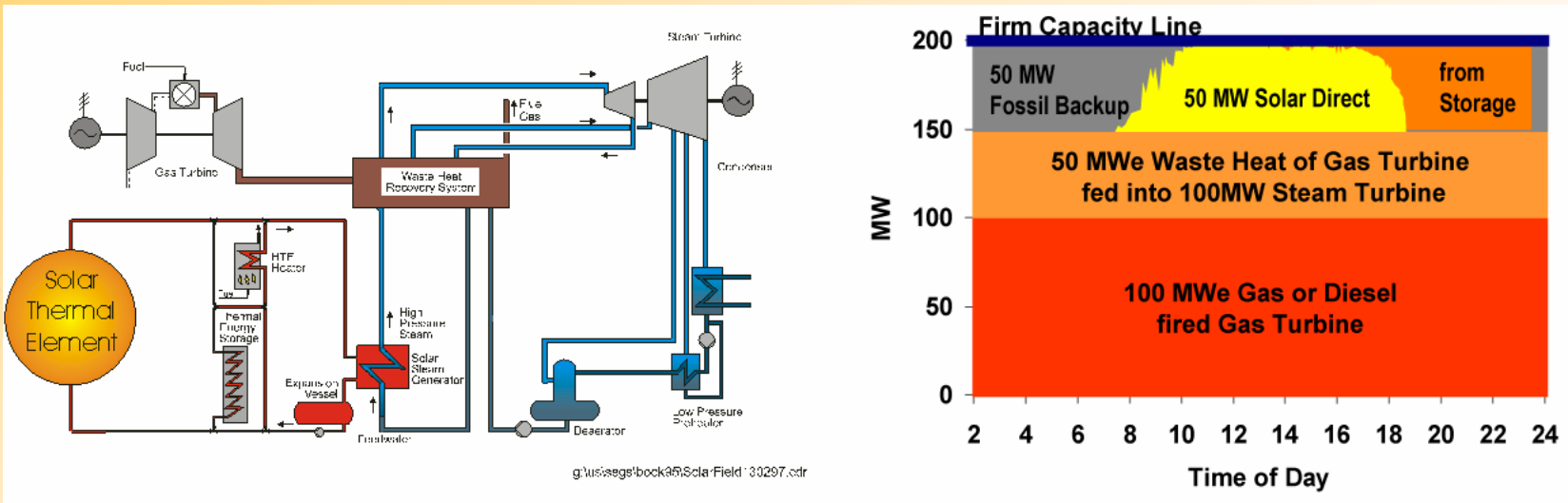
With 2.381.741km² of land area, Algeria is by far the largest country of the Mediterranean. Over 70% of its area are South of 20° latitude.
According to a study of the German Aerospace Agency, Algeria has with 1’787’000km² the largest long term land potential for concentrating solar thermal power plants.

Combine Algerian Sun and Algerian Gas for Cleanest Electricity



Basic Project Configuration with Steam or Combined Cycle



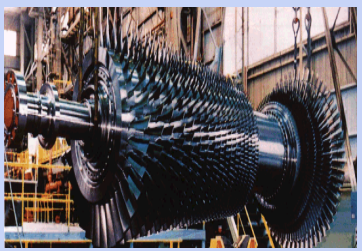


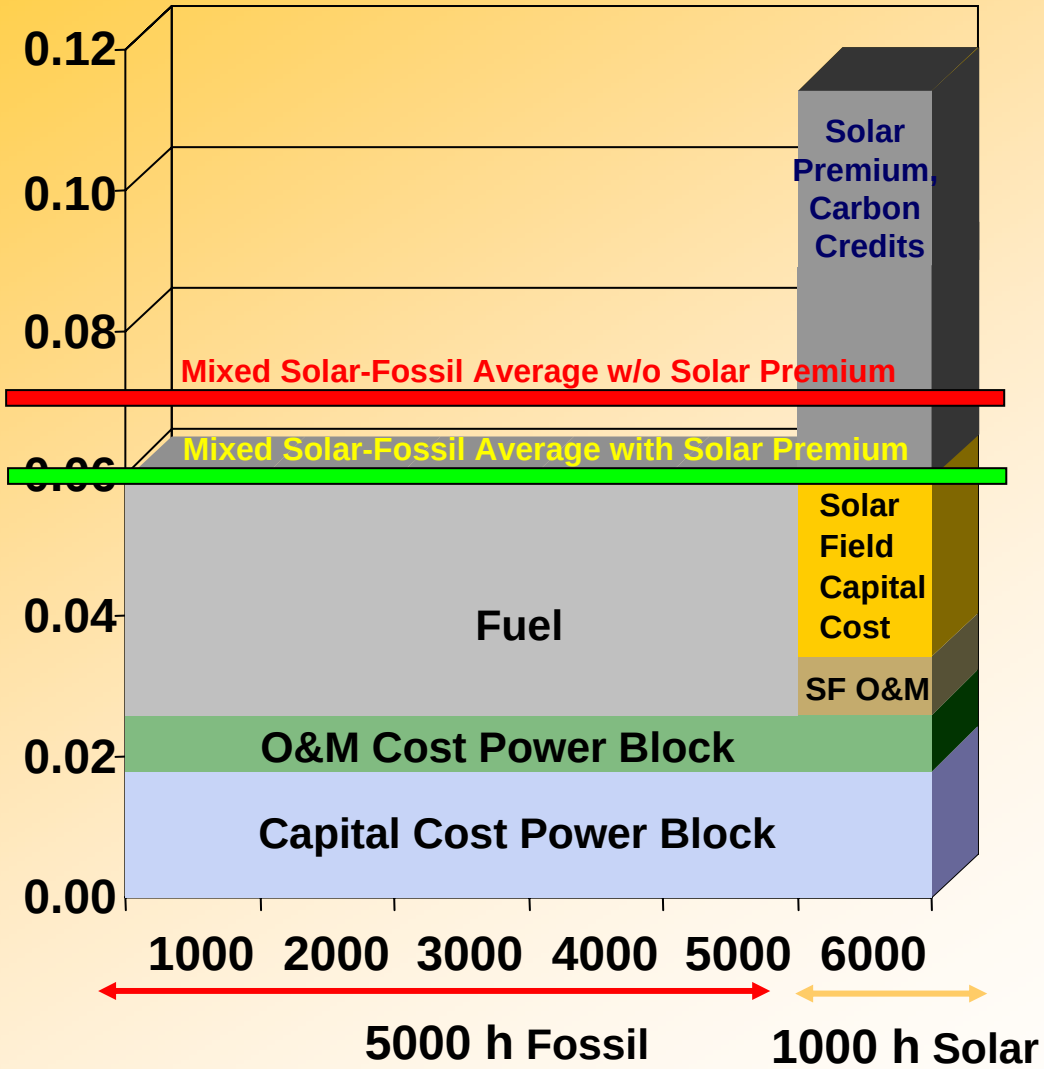
CSP INCREMENTAL COSTS

Fuel Cost

O&M Cost for Conventional Part

Capital Cost for Conventional Part



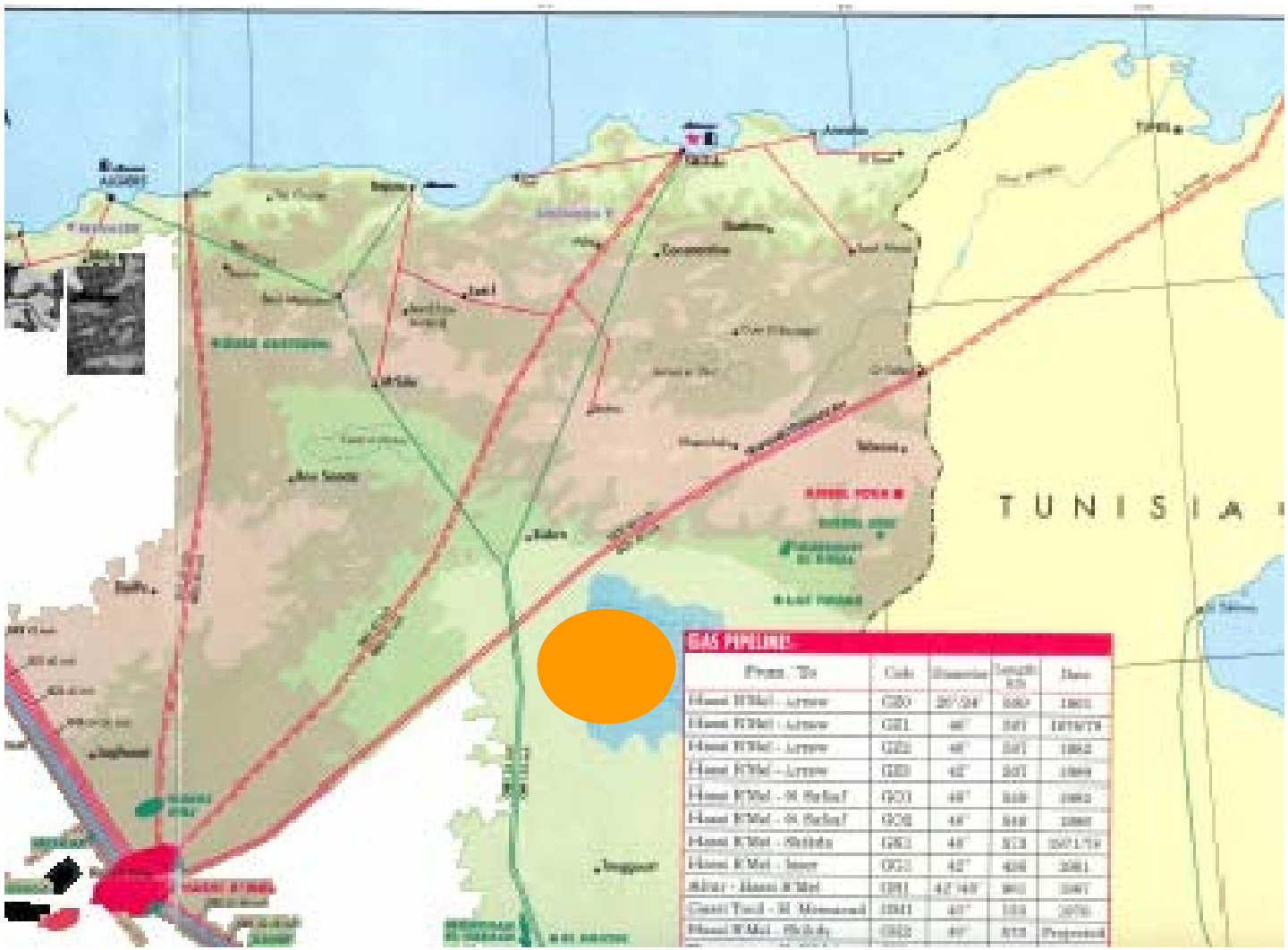


Solar Premium from Feed-In Law or

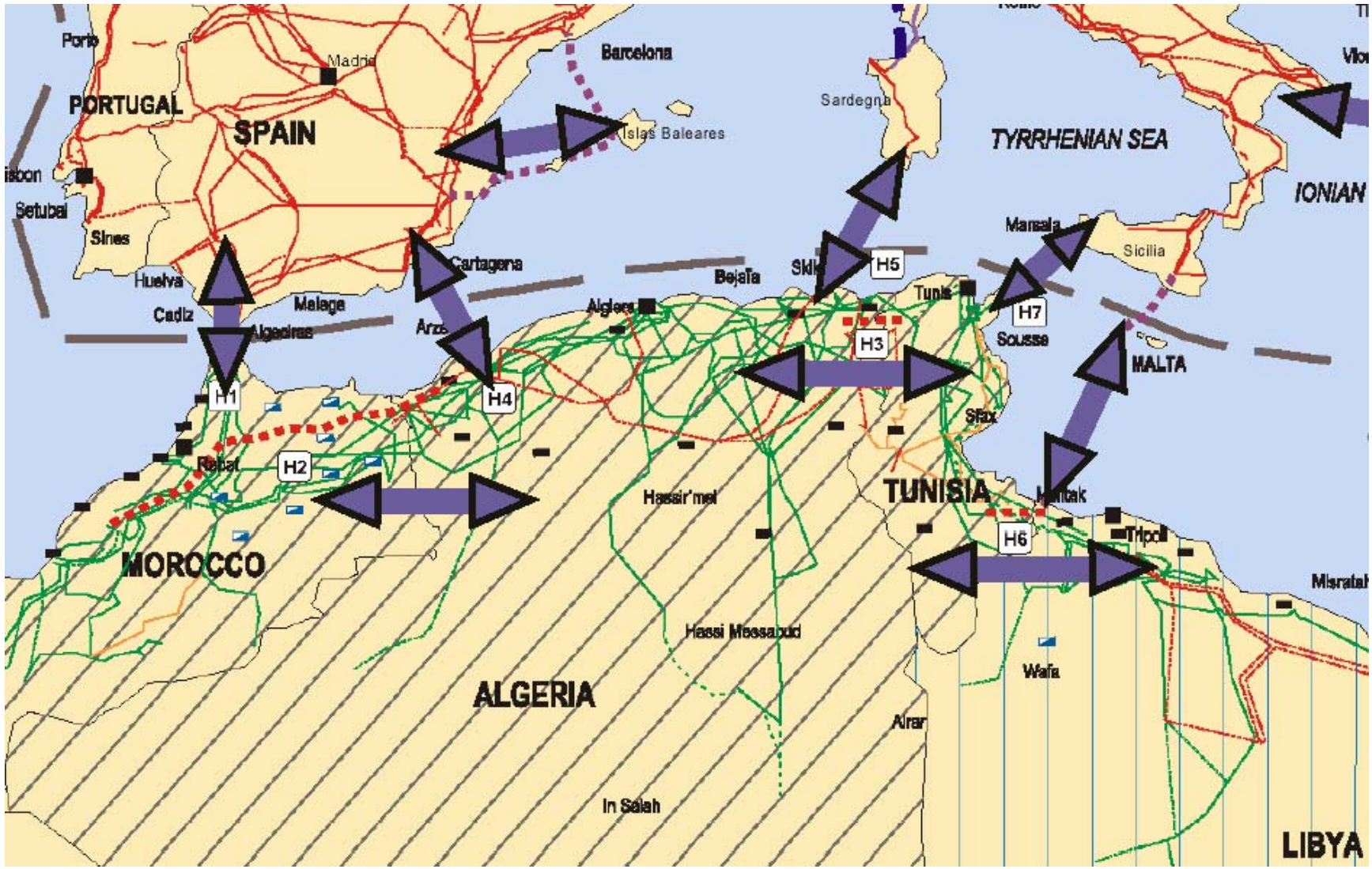
Solar Field Capital Cost

Solar Field, O&M Cost

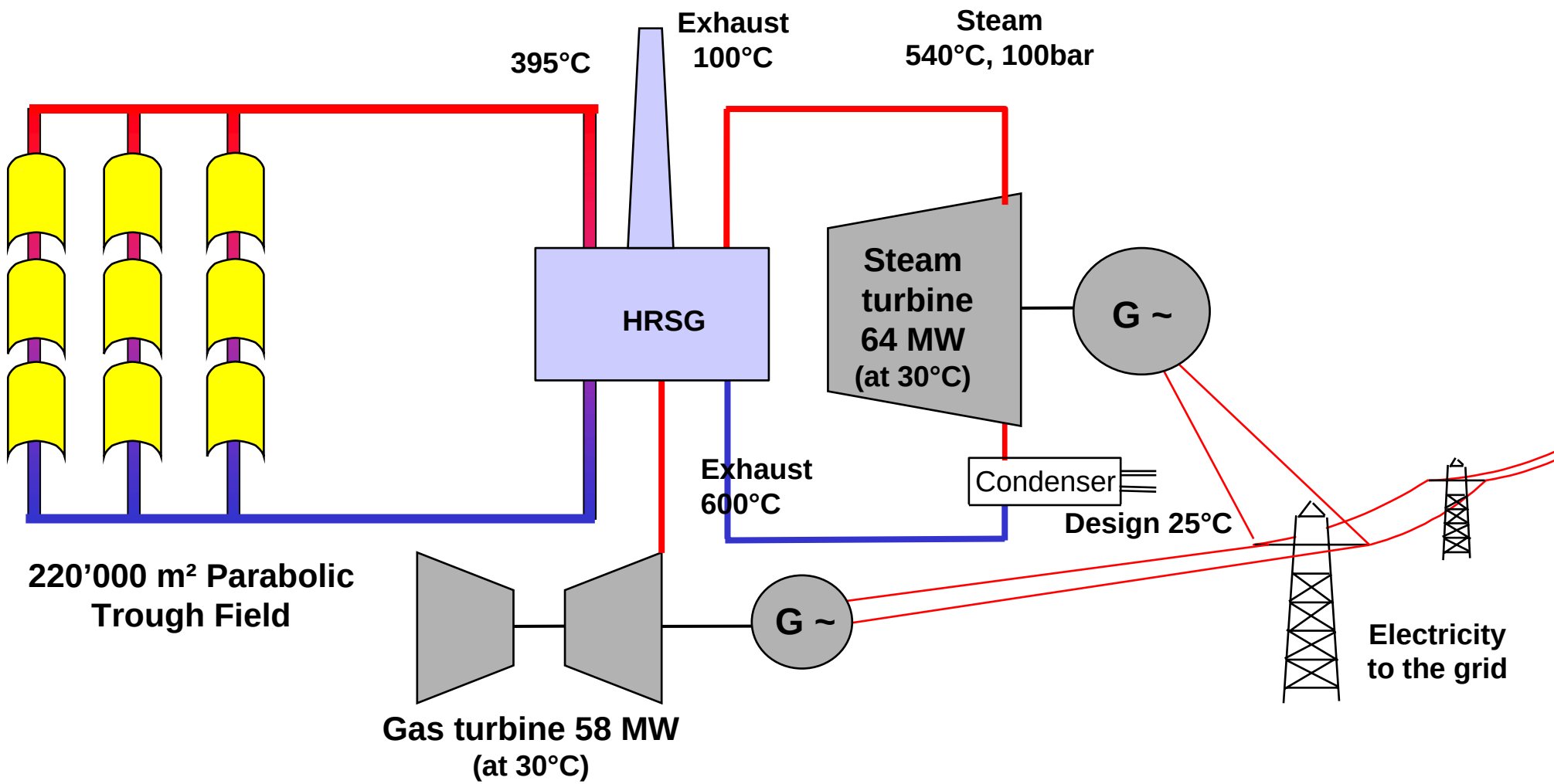
Einvisaged Site Areas



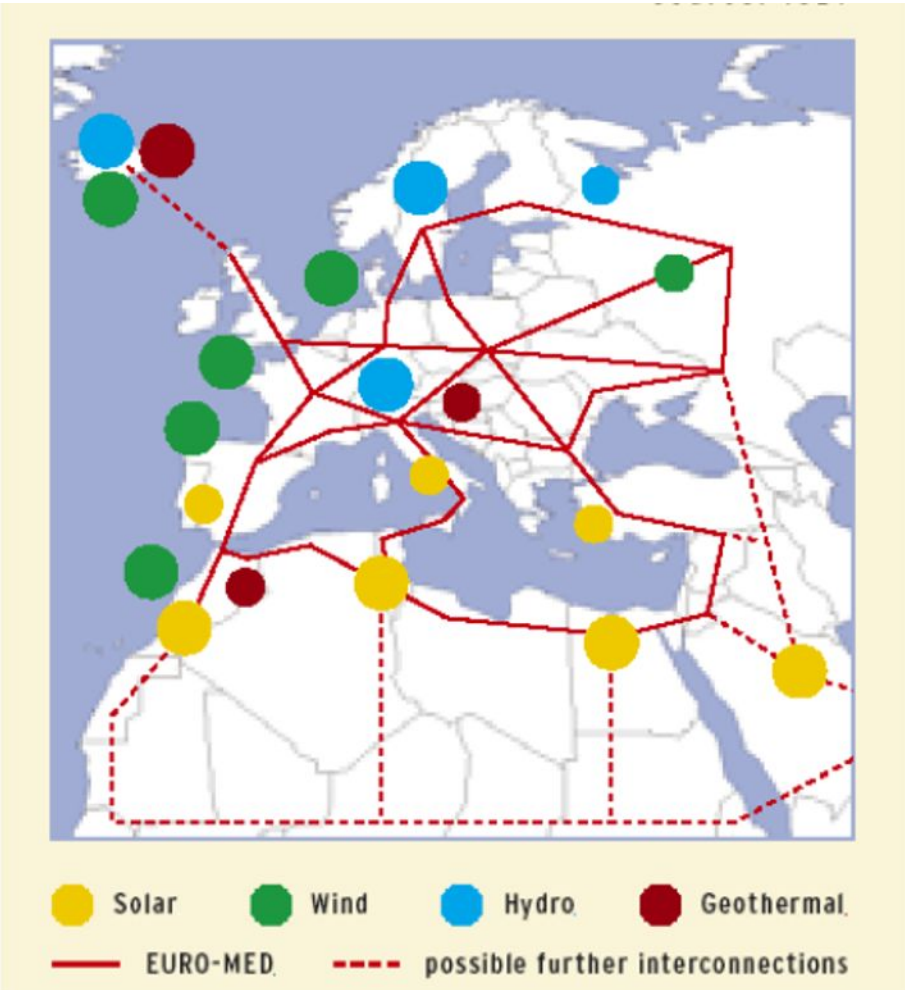
High Voltage Grid



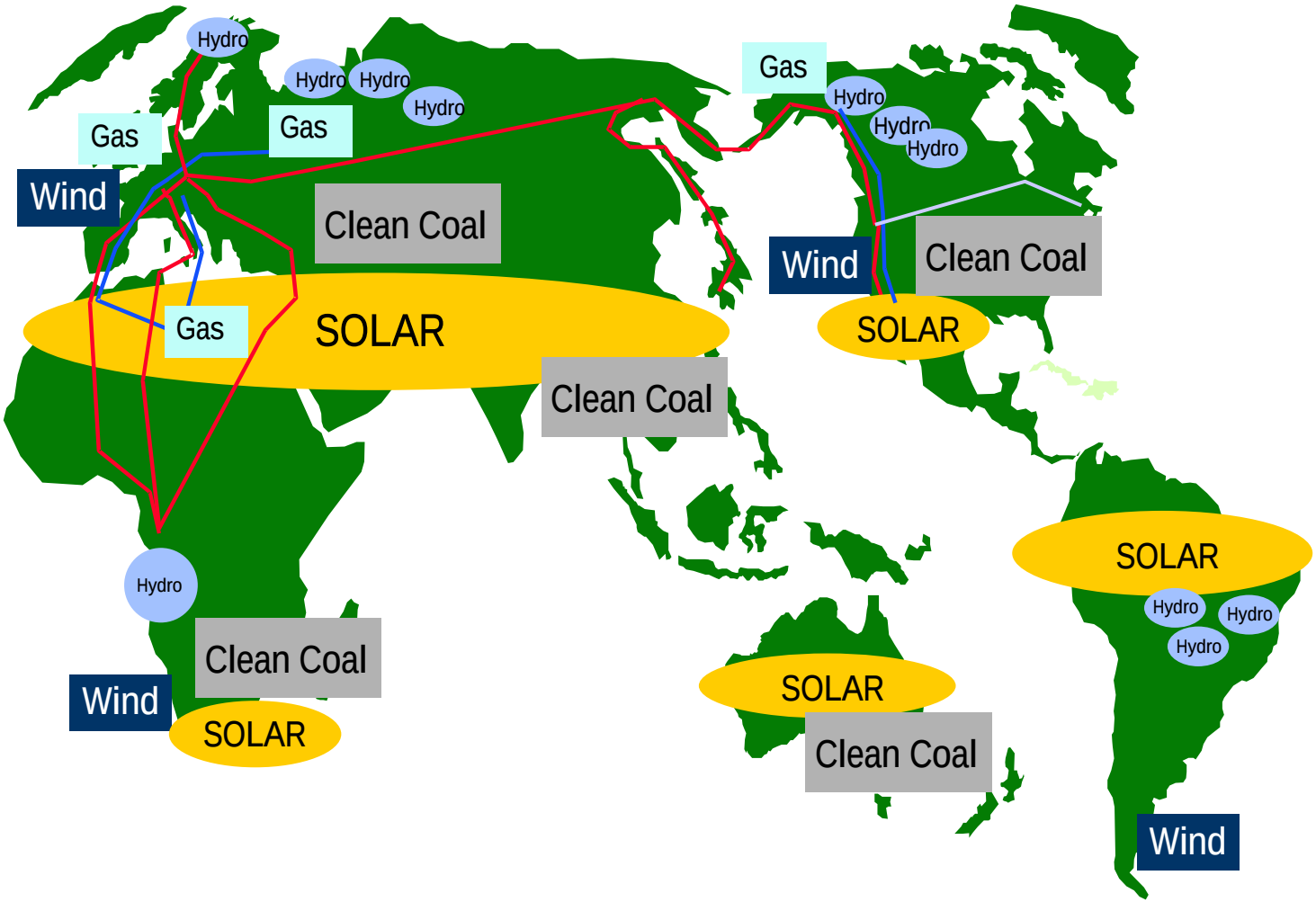
110MW ISCCS Cycle (Example Mathania)

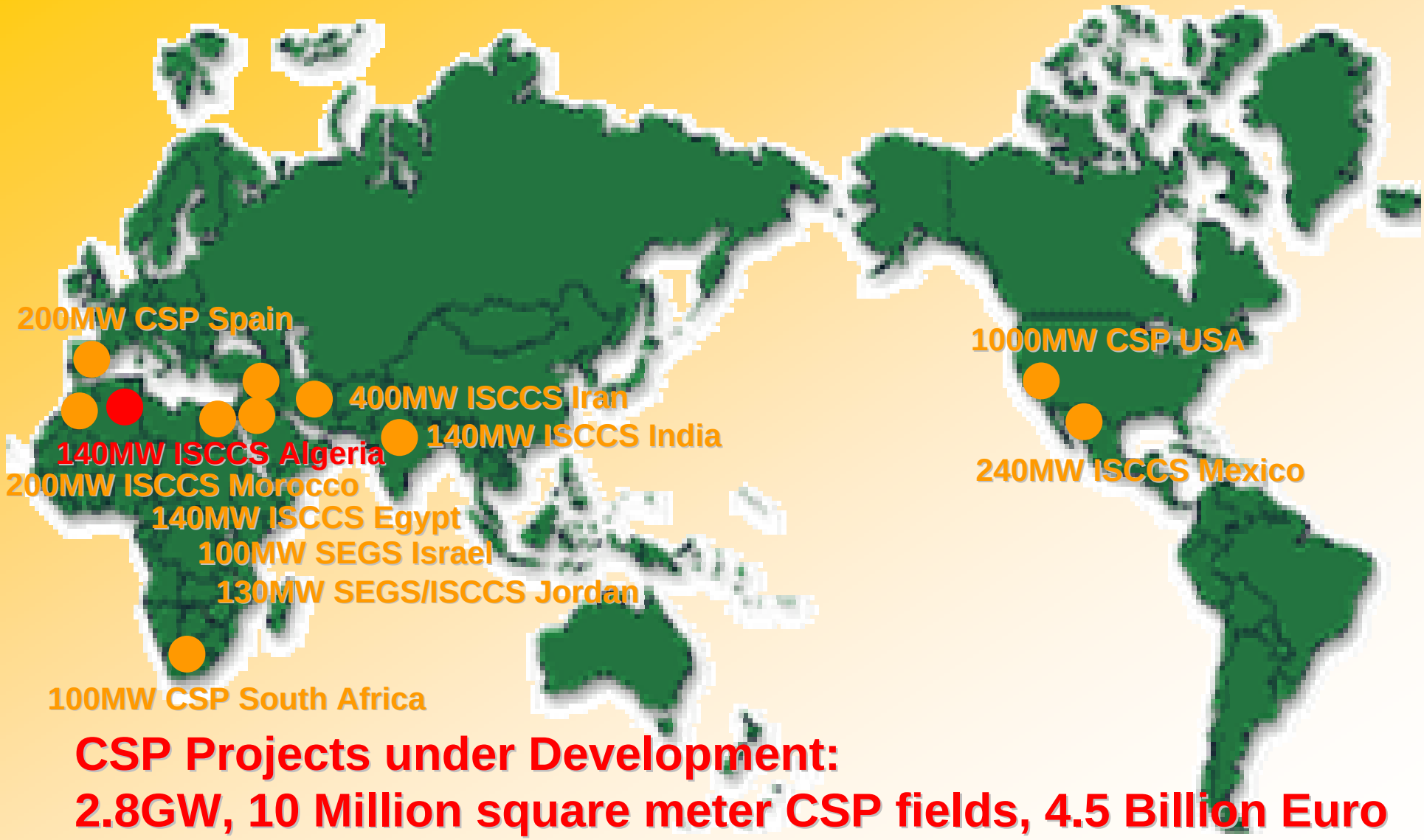


Gas and Solar Electricity Supply from Algeria to Europe



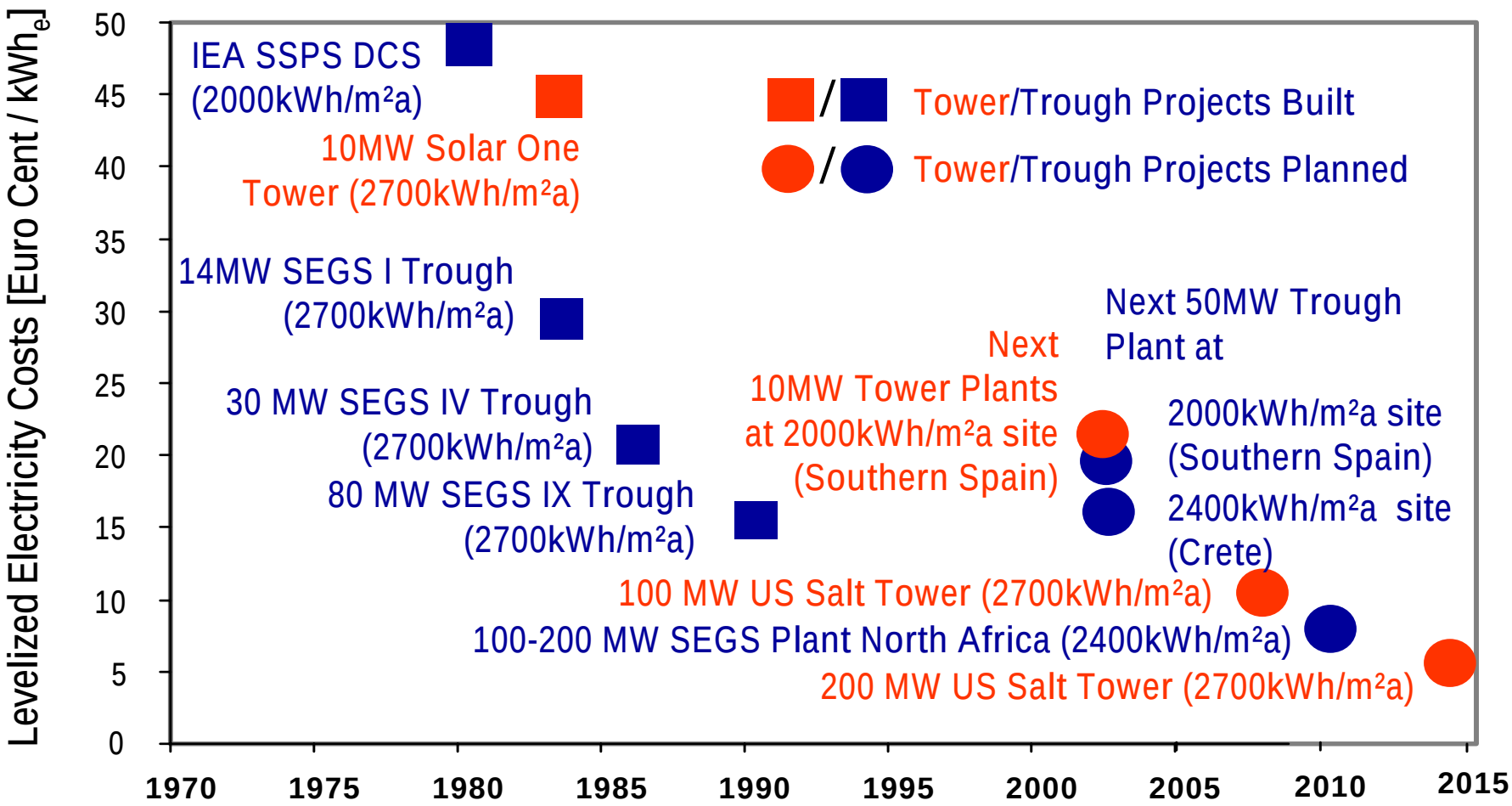
Vision of Integrated Fossil and Renewable Power Network

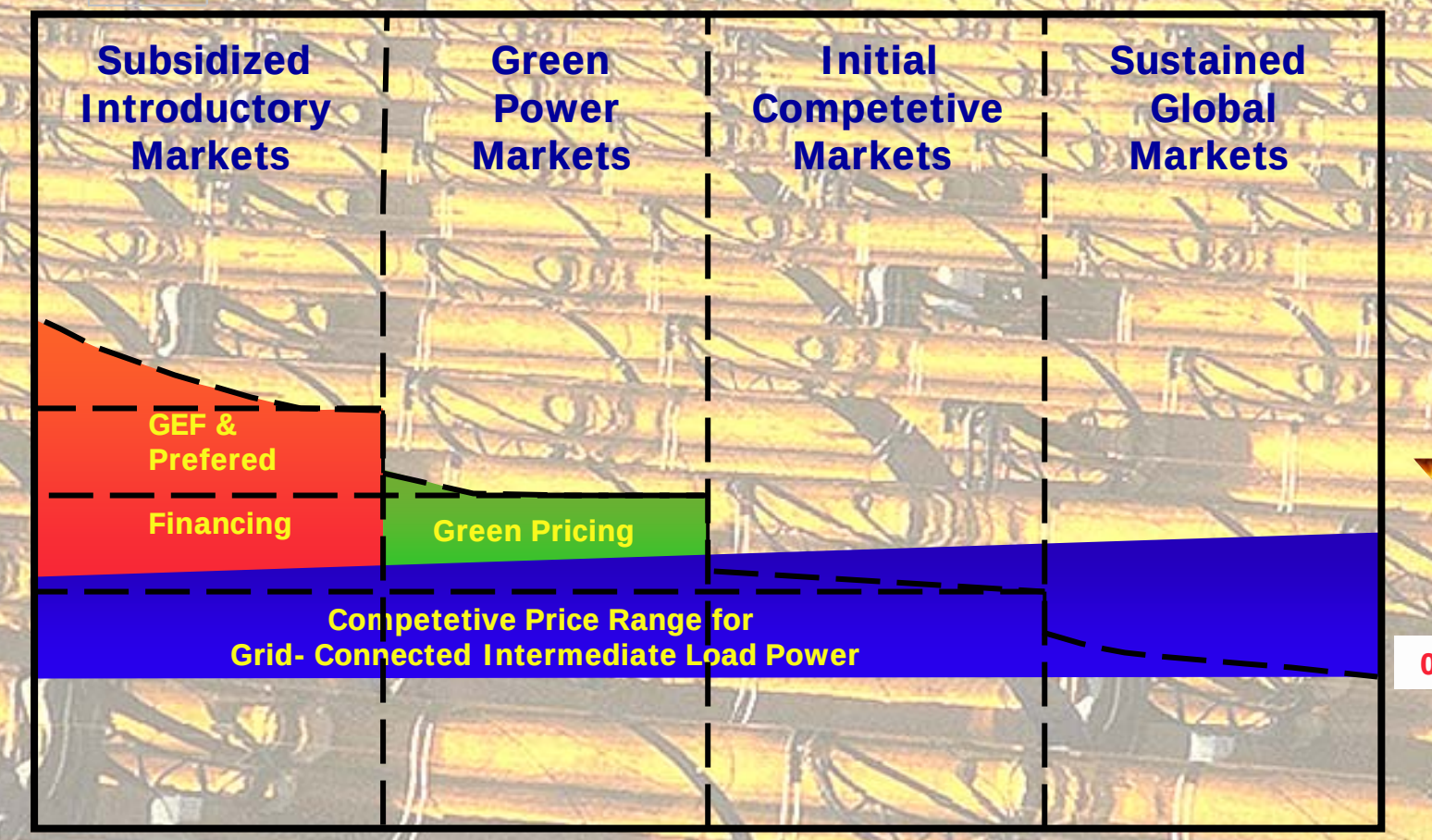




CSP Projects under Development:
2.8GW, 10 Million square meter CSP fields, 4.5 Billion Euro
200MUSD GEF Grant and 15MEuro EU Grants

Levelized Electricity Cost of CSP Projects




Subsidized Introductory Markets
Green Power Markets
Initial Competetive Markets
Sustained Global Markets
GEF & Prefered Financing
Green Pricing
Competetive Price Range for Grid- Connected Intermediate Load Power
0,18
0,16
0,12
0,08
0,04
0,00
Euro / kWh
2000
2005
2010
2015
2020
Year
0,04 Euro / kWh