

greenpower2020.net



# GreenPower2020 Connecting Europe - Africa and Middle East

New World  
New Energy

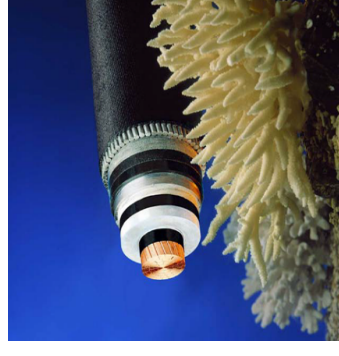
## LEG1 CONNECTOR SPECIFICATIONS

| Mechanical details | Electrical details |
|--------------------|--------------------|
|--------------------|--------------------|

- |                             |                            |
|-----------------------------|----------------------------|
| ▪ Subsea length ... 304 km  | ▪ Power ... 2 000 MW       |
| ▪ Onshore length ... 60 km  | ▪ HVDC Cables 2 X 1 000 MW |
| ▪ Total length ..... 364 km | ▪ Bipolar Configuration    |
| ▪ Maxi water depth 2 500 m  | ▪ Voltage: 400>500 kV DC   |



□□□□□□ □□□□□□ □□□□□□ □□□□□□



**DC submarine cables are, no danger : humans, animals or vegetation.**

# GreenPower2020 Solutions

Thermal Concentrated Solar Plant



Provide electricity 24/7 = 8,760 hours per year

Photovoltaic Solar Plant



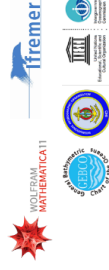
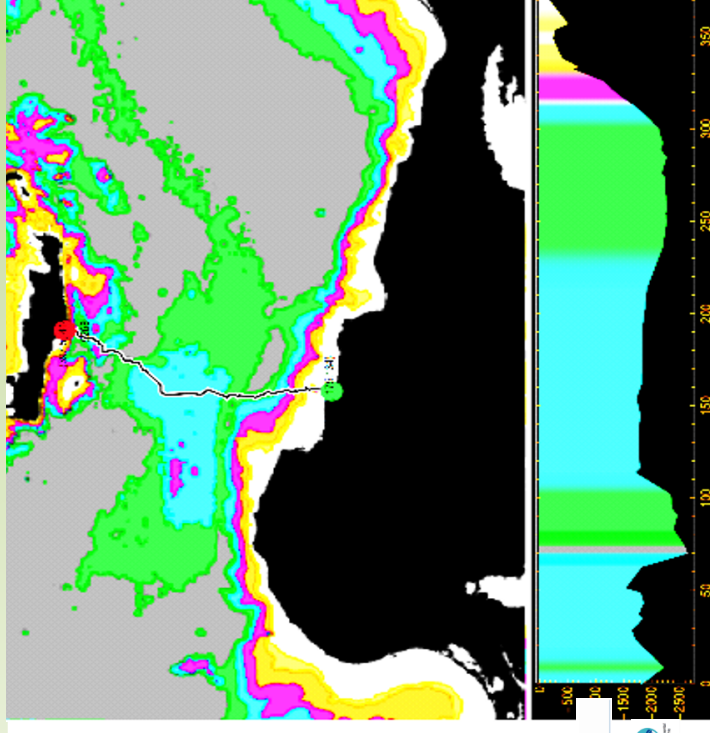
provides electricity 2.548 hours

by 2027, GP2020 plans to produce 8000 MW of solar energy in Libya and Egypt and to export to Europe

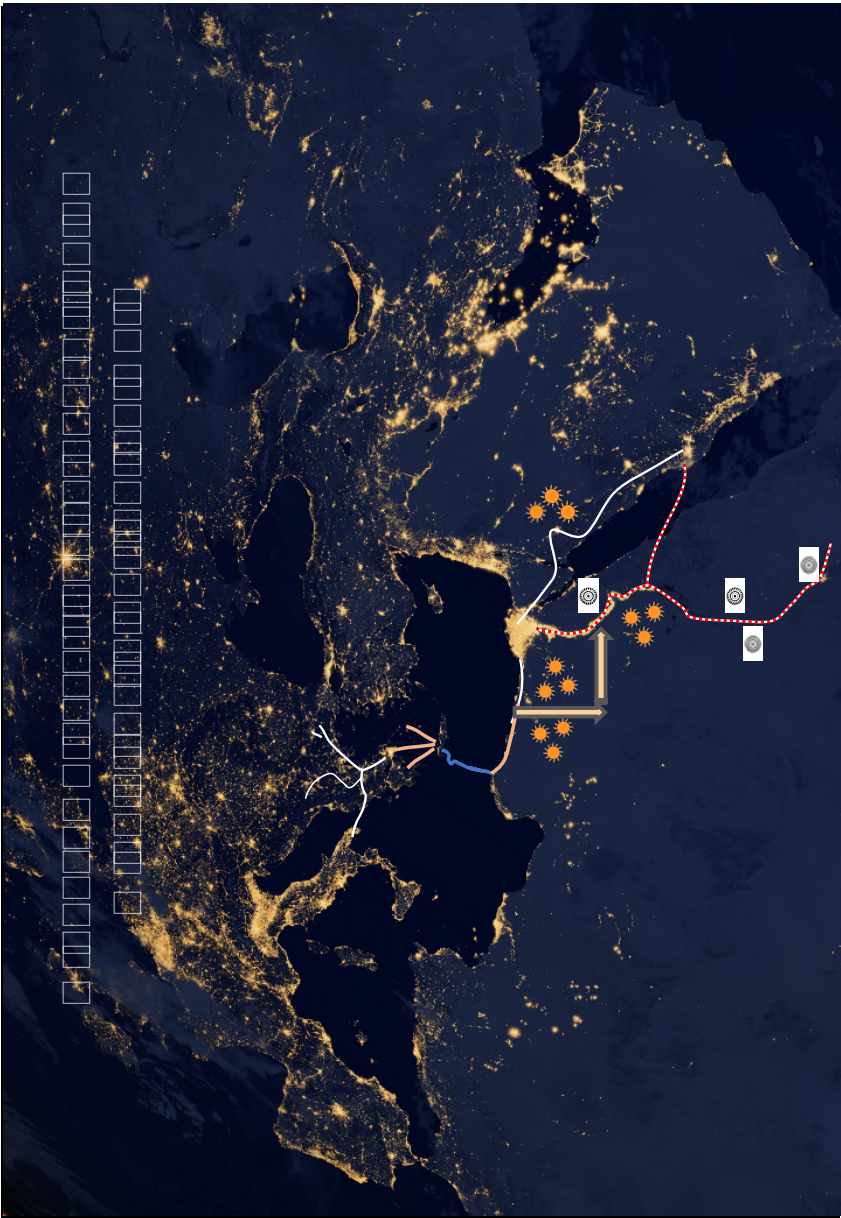
## GreenPower2020 Software

2020  
GreenPower

- **GreenPower2020** have determined a 304 km route to connect Greece to Libya using their own **algorithm** (Mathematica platform, GEBCO and IFREMER datasets)
- LEG1's maximum water depth of **2 500 m**
- **GreenPower2020**'s world class engineering team have identified the **innovation** and **International partners** enabling the realization of LEG1 projects
- **GreenPower2020** shall propel its industrial partners and suppliers to the forefront of technical innovation and performance.



New World  New Energy



## Greece-Libya, the Challenge of Inclusive Growth

### LEG1 is based on the following advantages for both, for Europe & Africa:

- ✓ Diversification and securing of energy sources for Europe and Africa ;
- ✓ The promotion of the production and using of renewable energies ;
- ✓ CO2 reduction, over 15 millions of tons/year (the south consumes the unused electricity from north and vice versa) ;
- ✓ And billions of investment optimization between Europe and Africa (because one completes the other) ;

North



Libya & Greece will be 2 important energy hubs

South



## Greece-Libya, the Challenge of Inclusive Growth

**LEG1 is based on the following advantages for both, for Europe & Africa:**

- ✓ LEG1 will decrease the price of the kWh;
- ✓ LEG1 will decrease the risks of oil spills, that is worth millions of tons will not cross the Mediterranean;
- ✓ LEG1 referenced in the TYNDP2018, an **unmatched the Socio-Economic Welfare report, 485 millions € per year and 806 millions € by 2030**
- ✓ **Migration control**, 2 000 MW from Europe to Libya, the stability will win Libya and waves of migrants will be stopped and no people dying in the Mediterranean.

North



Libya & Greece will be 2 important energy hubs

South



**LEG1 CBA results by ENTSO-E**

| Project ID | Project name | RG Responsibility | Chosen approach | Indicator        | Units         | BEST20 25 | DG2030  | EUCO20 30 | ST2030  |
|------------|--------------|-------------------|-----------------|------------------|---------------|-----------|---------|-----------|---------|
| 284        | LEG1         | CSE               | PINT            | $\Delta$ SEW     | M€ / year     | 519       | 806     | 485       | 834     |
| 284        | LEG1         | CSE               | PINT            | $\Delta$ SEW_CO2 | M€ / year     | 65        | 82      | -40       | 130     |
| 284        | LEG1         | CSE               | PINT            | $\Delta$ SEW_RES | M€ / year     | 0         | 13      | 0         | 0       |
| 284        | LEG1         | CSE               | PINT            | $\Delta$ CO2     | tonnes / year | 255190    | 1641300 | 1474400   | 1544100 |
| 284        | LEG1         | CSE               | PINT            | $\Delta$ RES     | MWh / year    | 1190      | 183790  | 2930      | 0       |

European Social-Economic Welfare reaches a min. yearly value of **€ 485 millions!**

The European Network Transmission System Operators for Electricity's CBA report, Social-Economic-Welfare is 485 millions € per year. E.C. scenario for LEG1 by 2030, the Social-Economic-Welfare 806 millions € per year

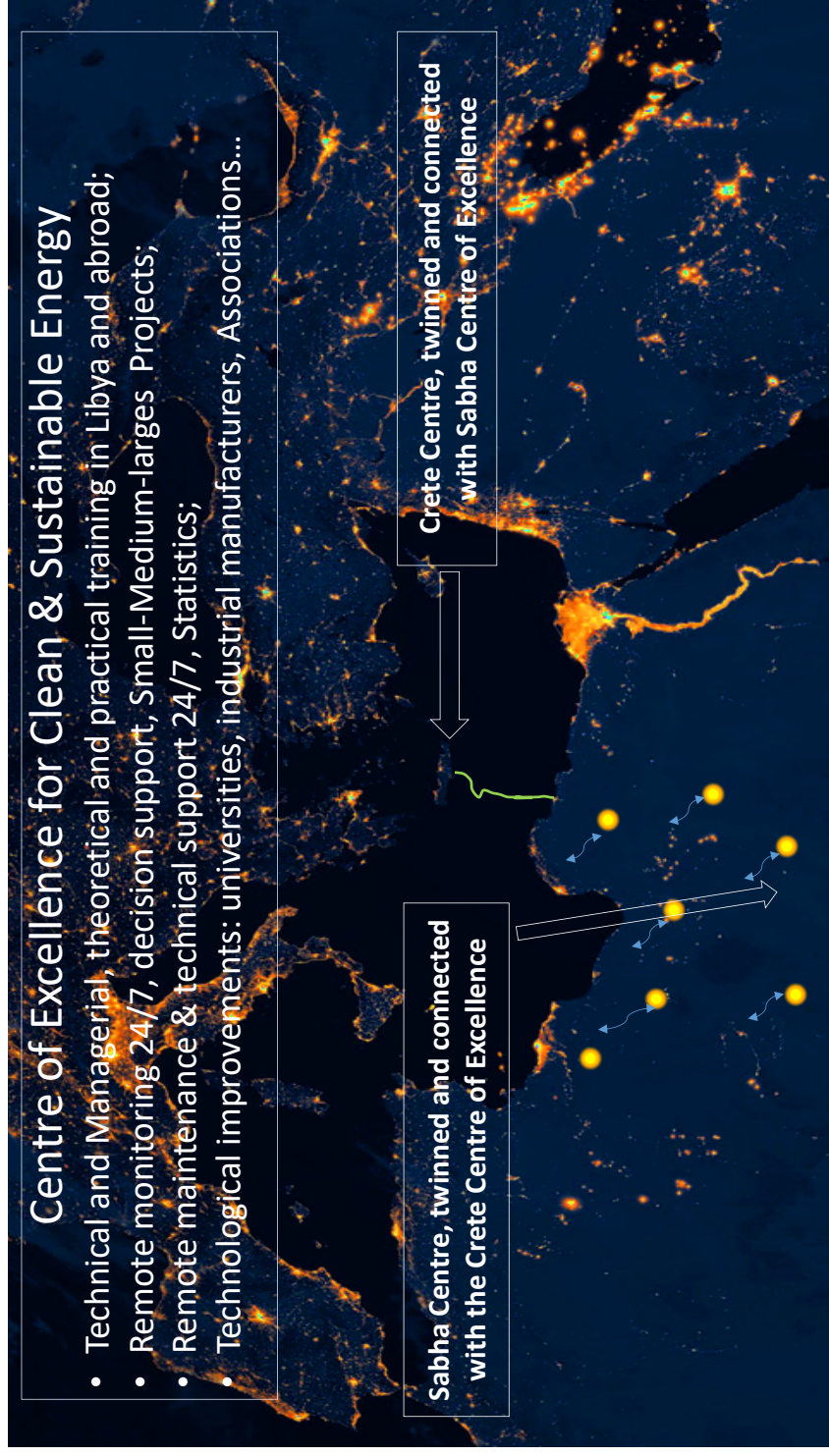


## Centre of Excellence for Clean & Sustainable Energy

- Technical and Managerial, theoretical and practical training in Libya and abroad;
- Remote monitoring 24/7, decision support, Small-Medium-larges Projects;
- Remote maintenance & technical support 24/7, Statistics;
- Technological improvements: universities, industrial manufacturers, Associations...

Sabha Centre, twinned and connected  
with the Crete Centre of Excellence

Crete Centre, twinned and connected  
with Sabha Centre of Excellence



## Greece-Libya, the Challenge of Inclusive Growth

- GreenPower2020's projects are in the framework of the European Commission's energy strategy to diversify and secure its energy sources.
- LEG1 interconnects Greece and Libya, as well as millions of European and African people sharing and exchanging the same electrical energy sources, Telecommunication and Data Transmission, the Connector is a source of co-development, peace, and of € billions of investment savings in both Europe and Africa. The two neighboring region's energy seasonal needs complement each other.
- European Network Transmission System Operators for Electricity report (<https://tyn dp.entsoe.eu/tyn dp2018/projects/projects/284>)

# GreenPower2020



Place Marcel Broodthaers 8  
1060 Brussels Belgium  
GSM : 00 33 6 72 32 98 15  
Tel: 00 32 2 892 40 23  
[info@greenpower2020.net](mailto:info@greenpower2020.net)  
[www.greenpower2020.net](http://www.greenpower2020.net)

