

EDF AT A GLANCE

THE EDF GROUP

EDF CIST – Transmission Engineering



EDF 2014 KEY FIGURES

A world leader in electricity covering all activities

- Generation (from nuclear to renewables),
- Networks,
- Sales and Trading

A public service company

- A listed company, with the State as major stakeholder (85%)
- Aiming at fulfilling public services' missions
- A 12 Bn€ investment plan to strengthen our assets and develop our activities
- Provide cheap and secure energy

We are an international group



European leader on the electricity market



**39 M
Clients**



72.9 Bn€



12 Bn€



**Presence in 26
countries**

A CARBON FREE ELECTRICITY COMP

A diversified mix making the Group the leader in low carbon energy

1st

Nuclear
operator worldwide

74.8 GW of nuclear installed capacity

58 reactors in France, **15** in the UK, **5** in the US

3 EPR reactors under construction



ENR

A key leader in the European renewable market

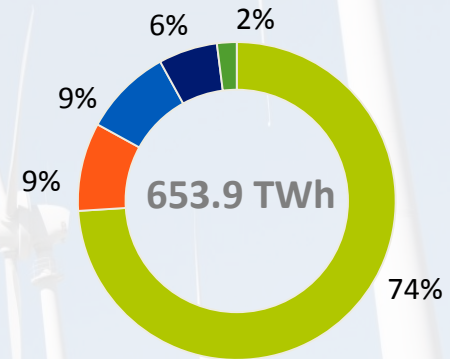
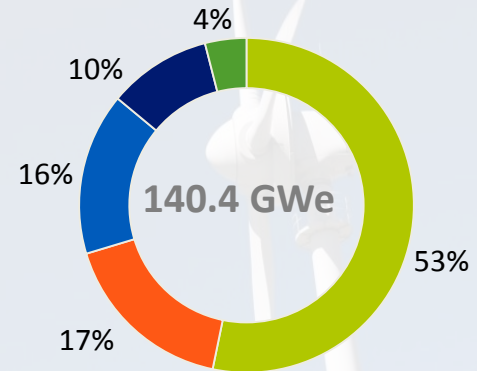
EDF Energies Nouvelles:
31.1% growth in 2013

GREEN BOND:
1.2Bn € invested in ENR



87% of the EDF Group's electricity output is carbon free

INSTALLED CAPACITY



GENERATION

MAP OF EDF MAIN INVESTMENTS IN ASIA



Business opportunities in Mongolia

Past experiences in Mongolia

- ✓ **CHP5 and Tavan Tolgoi power generation Project: Due diligence performed by EDF for these two projects.**
 - ✓ **Bidding on “energy efficiency and urban environment project (TA 8649)”**
-

Power Generation investments in Mongolia

- ✓ **Due diligence and opportunities studies for investment in Power generation are under EDF International Division located in Bangkok.**
 - ✓ **EDF is not necessarily the main share holder but a significant industrial role is one of the key conditions in EDF’s investment (*such as participation in design, or as owner Engineer during design and construction*)**
-

Power Transmission in Mongolia

- ✓ **EDF- CIST, Transmission Engineering center, can provide technical assistance through consulting Services.**
- ✓ **EDF-CIST consulting services often provide the base line for further EDF investment.**



CIST consulting services

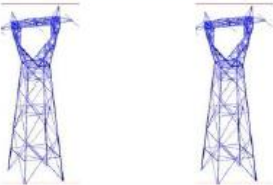
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SYSTEM STUDIES

Studies, Master plans, Static and dynamic calculations, Interconnections, System codes, institutional relations with TSOs, Integration of renewable sources in power systems

2



DESIGN

Feasibility studies, Design studies

3



TENDERING

Technical specifications, Tender documents for contractors, Contract negotiations

4



SUPERVISION

Works supervision, Factory acceptance tests, On-site tests, Commissioning, Guarantee supervision

5



SUPPORT, OPERATING & MAINTENANCE

Operating & maintenance policy, Procedures, Protection plans, Audit, Dignosis, Performance analysis

CIST role : owner's engineer, technical assistance

Multiple customers

EDF Group



**Nuclear Power Generation Division
Nuclear Engineering Division**



**Fossil Power Generation & Engineering
Division**



**Hydro Power Generation & Engineering
Division**



Overseas Departments and Territories (SEI)



Renewable Energies

Other EDF Group entities and subsidiaries

Third party customers



Public companies



**Power grid operators and
electricity distributors**



**Government Administrations
and Ministries**

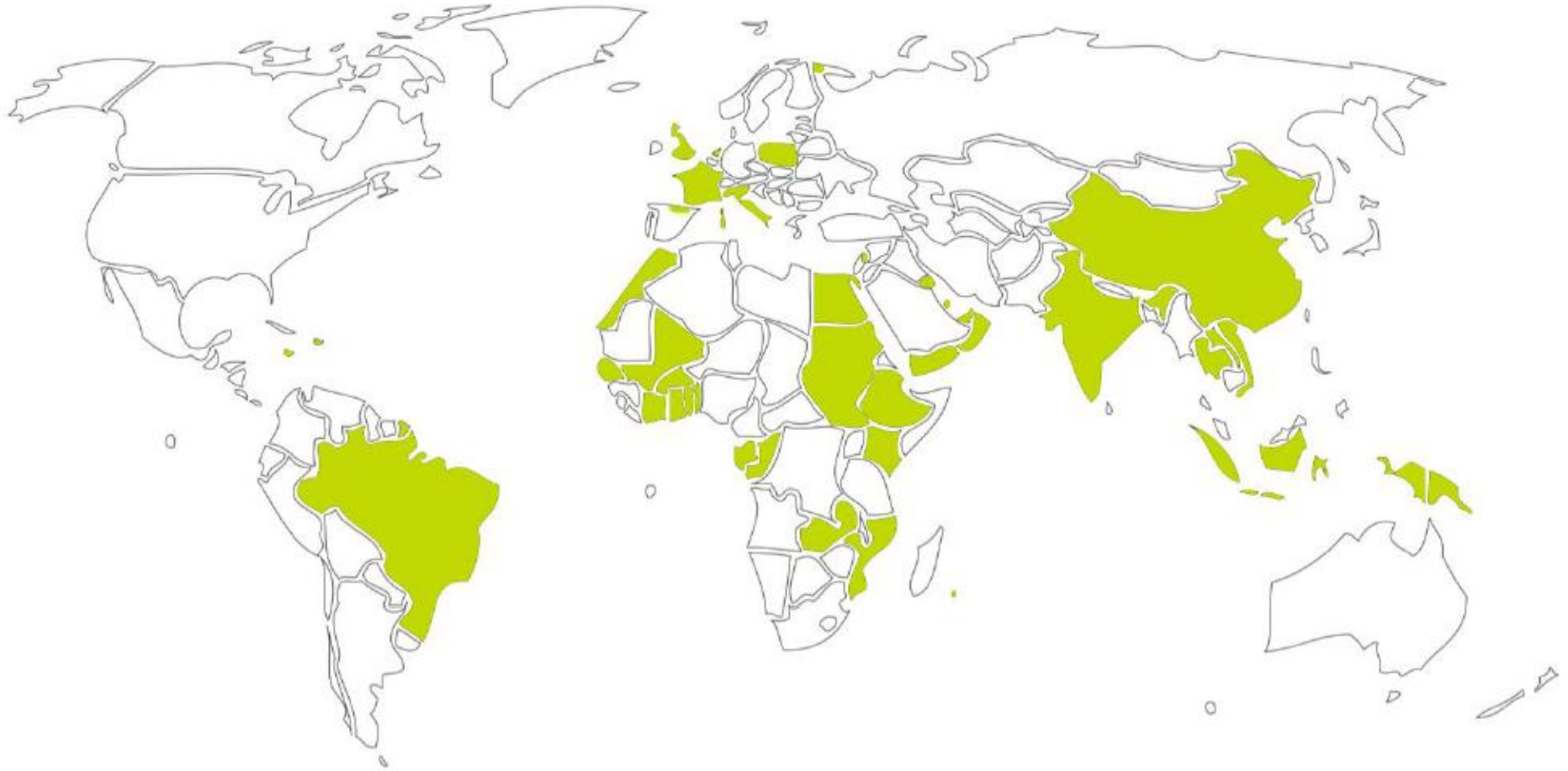


Financial Organisations



Industrial Manufacturers

CIST, serving the needs of **diverse customers**



Our activities in the Middle East

LEBANON

- Bid package, GIS substation
- Network studies

KUWAIT

Transmission Master Plan

QATAR

National Dispatching Centre supervision study

YEMEN

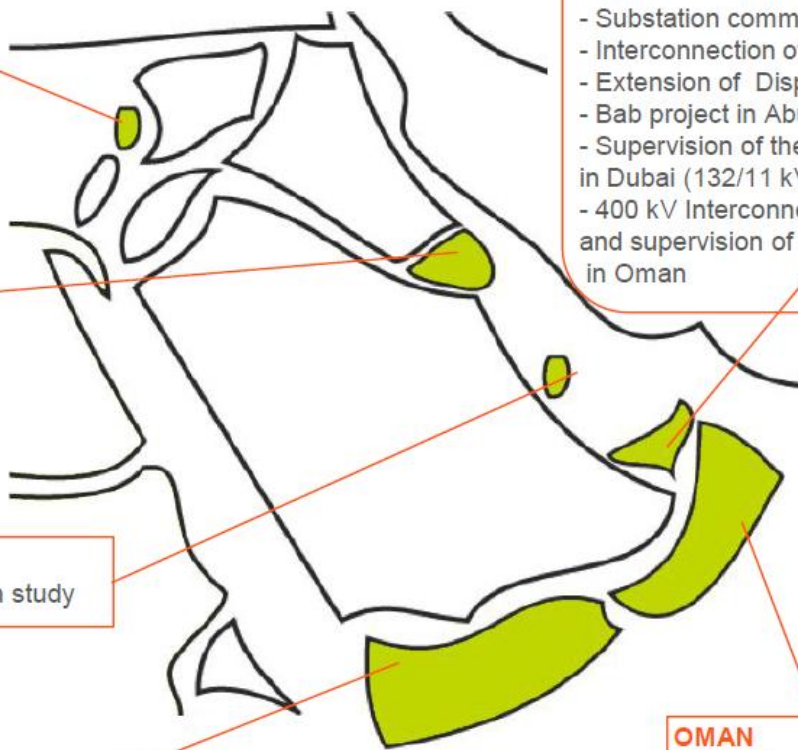
- Substations and cables supervision
- Consultancy services for National and Regional Dispatching Centre in Yemen

UNITED ARAB EMIRATES

- Mamzar to Dubai Project
- Substation commissioning
- Interconnection of the Emirates
- Extension of Dispatching Centre in Abu Dhabi and Al Ain
- Bab project in Abu Dhabi
- Supervision of the construction of five substations in Dubai (132/11 kV)
- 400 kV Interconnection line between Abu Dhabi and Dubai and supervision of the construction of a 400 kV substation in Oman

OMAN

- Network study for the interconnection of Oman and the United Arab Emirates
- Network study for reactive compensation



Our activities in **Asia**

CHINA

EDF – China Holding: Official representation , Nuclear activities (EPR), Non Nuclear activities (Thermal coal ultra super Critical)

MONGOLIA

Prospection and bidding for energy efficiency and urban environment project. (TA 8649)

LAOS

Transmission lines for hydroelectric Nam Theun 2 power project

INDIA

Technical assistance for National load dispatch centre

THAILAND

Under ground substation for MEA- Design and supervision on going

INDONESIA

Study for the ring network around Jakarta

VIETNAM

-Studies and engineering Laos-Vietnam interconnection
- Assistance to DCC scada

PAPOUASIA NEW GUINEA

Studies and engineering Australia – Papua New Guinea interconnection

A structure, developed over 30 years to answer EDF long term needs



Merci Thank you

