



# Second Euro-mediterranean **Rendez-vous on Energy**

January 6th 2015  
European Parliament, Brussels



## **From Social Welfare to Real Projects: Regulatory and Financial Issues**

Patrick Sandrin  
Medgrid



# MEDITERRANEAN INTERCONNECTORS : TWO MAJOR QUESTIONS

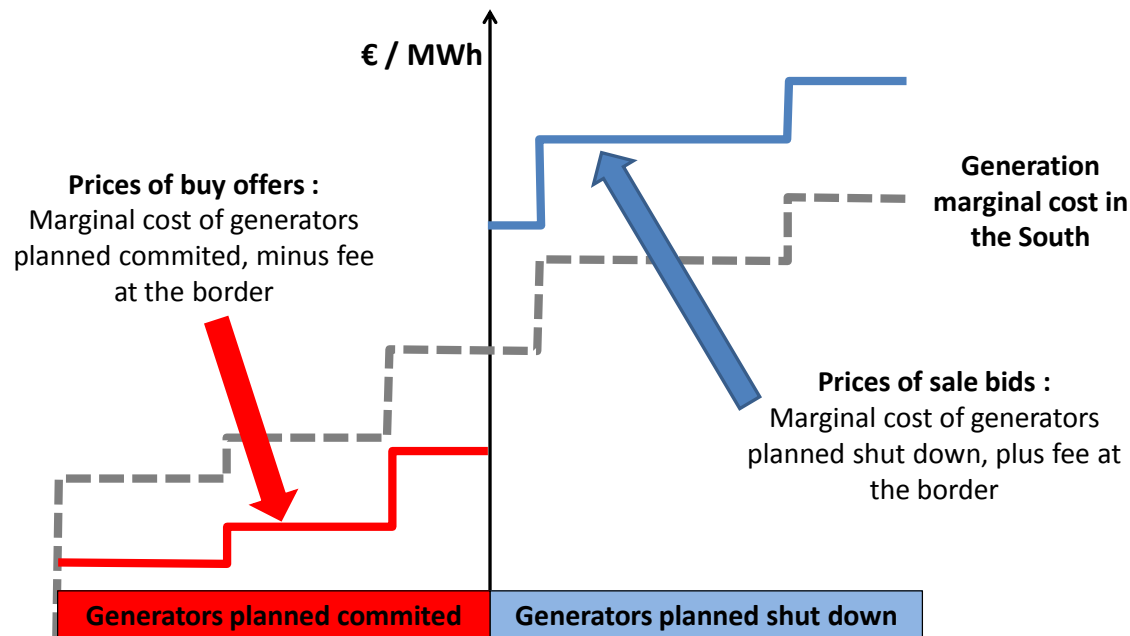
→ Who will use Mediterranean interconnectors ?

→ Who will invest in Mediterranean interconnectors ?

# MEDITERRANEAN INTERCONNECTORS : FOR WHICH USERS ?

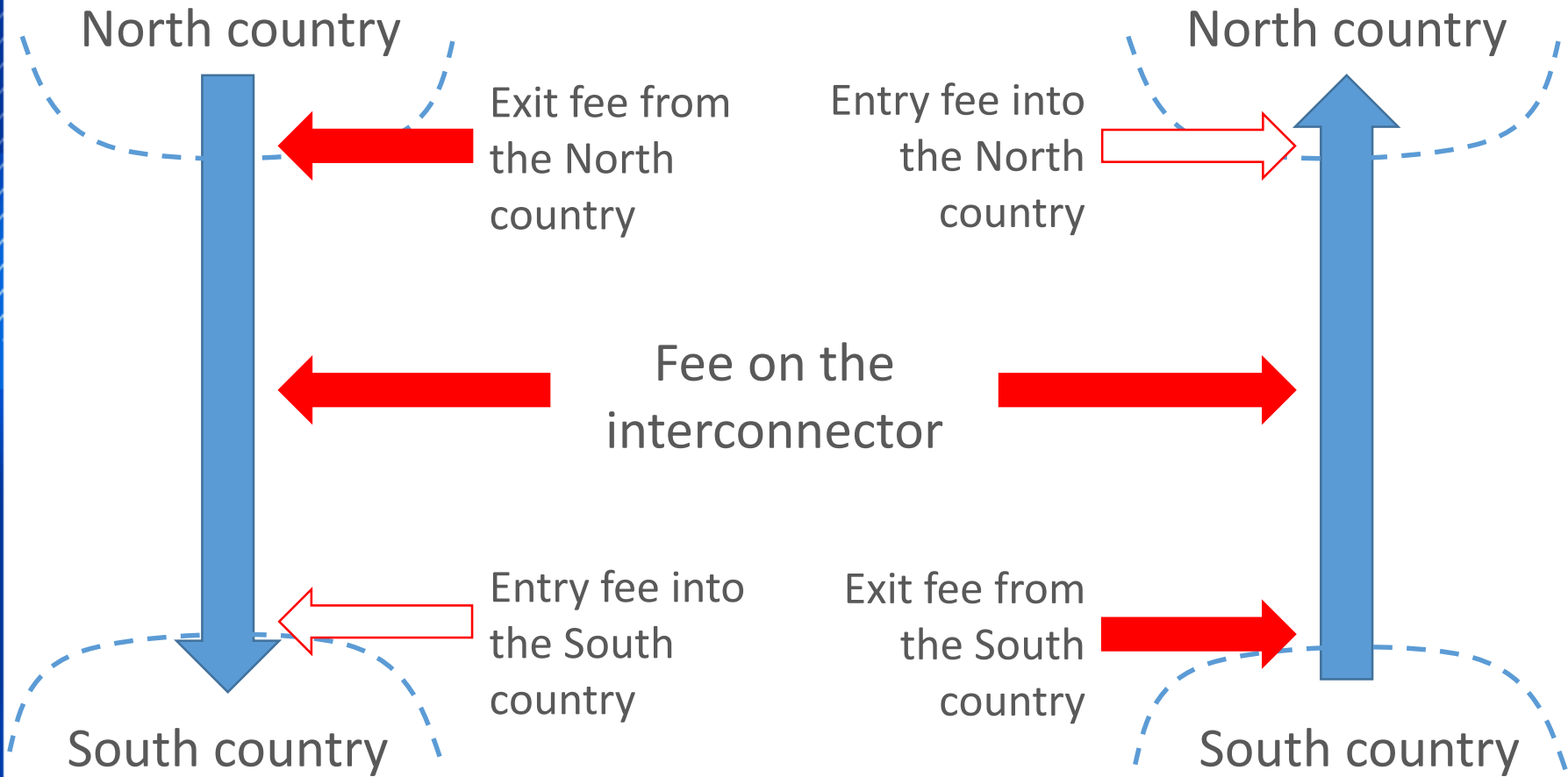
- First user : the National Integrated Utility (NIU) in the South country, for participating to the European market
  - For buying and selling.

The « Spain-Morocco » model: the interconnection is used by ONEE, for participating to the Iberian Market. ONEE has bought 5 TWh in 2013.



- Other users could be authorized
  - e.g. independent producers from renewable sources in Morocco.

# FINANCIAL CONDITIONS FOR USING AN INTERCONNECTOR, ACCORDING TO DIRECTION OF FLOWS



## WHICH INVESTORS ARE POSSIBLE ?

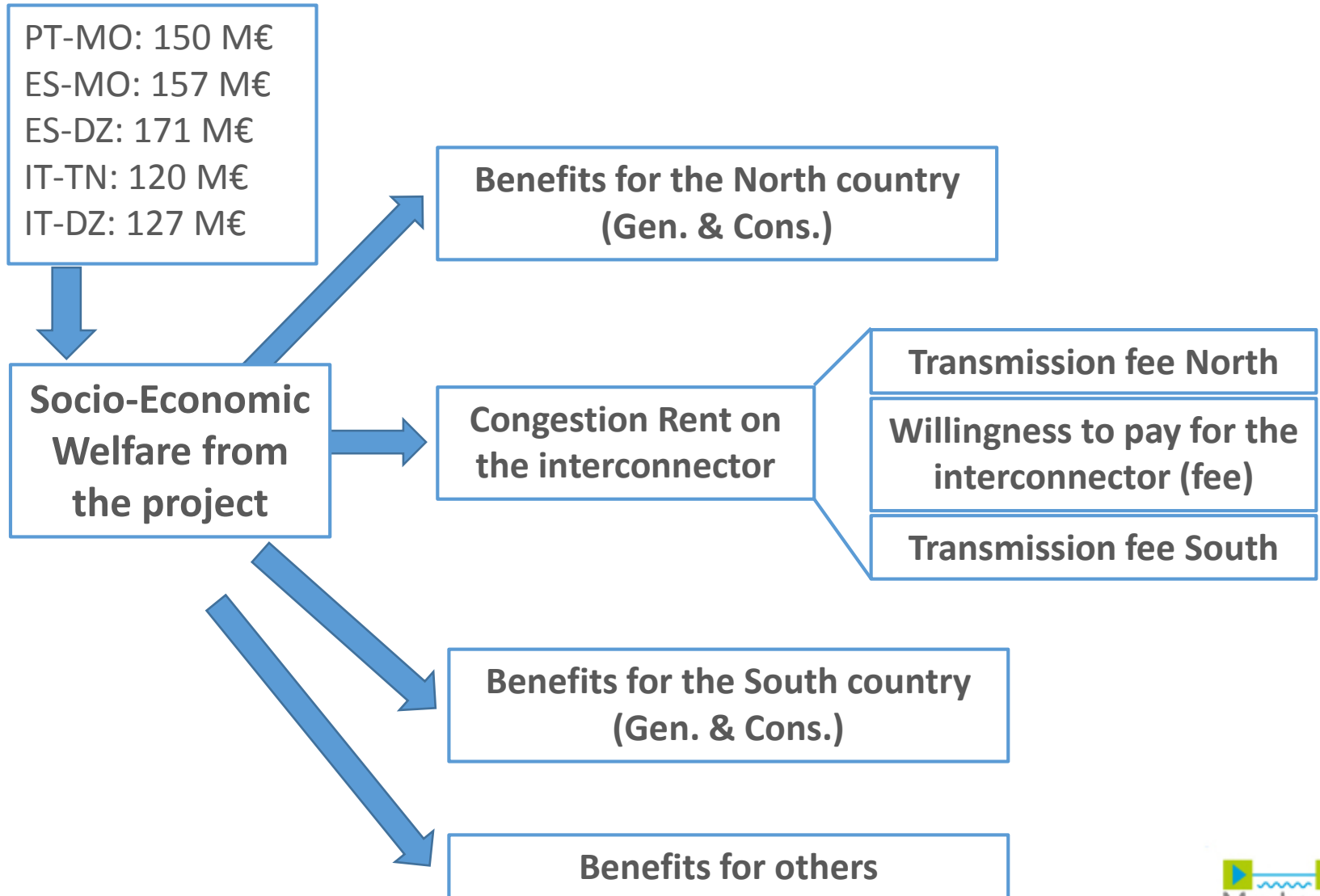
Part of the interconnection	Possible investors
Upstream grid in the North	Transmission System Operator in the North country
Interconnector – North part	<ul style="list-style-type: none"><li>• TSO</li><li>• Private investor (if authorized)</li></ul>
Interconnector – South part	<ul style="list-style-type: none"><li>• National Integrated Utility</li><li>• Private investor (if authorized)</li></ul>
Upstream grid in the South	National Integrated Utility in the South country

### 3 COMBINATIONS OF INVESTORS CONSIDERED

	Case 1	Case 2	Case 3
Upstream grid in the North	TSO in the North	TSO in the North	
Interconnector		National Integrated Utility in the South	Independent investor
Upstream grid in the South	National Integrated Utility in the South		National Integrated Utility in the South



# SHARING BENEFITS OF INTERCONNECTORS BETWEEN INVESTORS



# SHARING BENEFITS BETWEEN INVESTORS

		Case 1	Case 2	Case 3
Surplus for generators in the North country				
Surplus for consumers in the North country				
	Transmission tariff North			
Congestion rent	Net rent	TSO / NIU	NIU	Independent Investor
	Transmission tariff South			
Surplus for generators in the South country				
Surplus for consumers in the South country				



## RETURN ON INVESTMENT IN 2020 FOR THE PROJECTS

Project	Investment costs (M€)				Social Economic Welfare (SEW)	Return on Investment in 2020 (depending on the extent of the investment)		
	Interco.	Upstream grid North	Upstream grid South	Total		For the TSO in the EU country	For the National Integrated Utility in the Maghreb country	For an independent investor
Portugal – Morocco	478	PT : 71 ES : 5	64	617	22%	24% - 59%	25% - 35%	14%
Spain – Morocco (AC)	133	117	64	314	49%	14% - 24%	67% - 80%	41% - 57%
Spain – Morocco (AC + DC)	321	117	64	502	30%	14% - 16%	34% - 46%	17% - 23%
Spain – Algeria	565	117	MA : 64 DZ : 3	749	21%	23% - 42%	21% - 26%	15% - 19%
Italy – Tunisia	389	282	104	775	9%	5% - 8%	11%	11% - 26%
Italy – Algeria	600	282	32	915	9%	6% - 7%	12% - 15%	8% - 30%

**Note on the RoI for TSOs and NIUs:** Contrary to independent investors, TSOs and NIUs are « regulated » players. For them, the RoI indicated in the table are those on which investment should be decided. The actual financial return will be the one granted by their respective regulators (WACC).

# REGULATORY AND FINANCIAL ISSUES: THE WAY FORWARDS

Public implication needed, at the EU-Maghreb level, for :

## → Regulation:

- National regulations and inter-governmental agreements needed, to secure conditions for building and using a new interconnector.
- Independent investors should be allowed.
- CO2 emissions : North-South coordination needed.

## → Finance:

- Access to favourable funding conditions should be granted.
- Projects to be considered at the EU level as « Projects of Common Interest »