Extract from:

Christian von Hirschhausen, "Financing Trans-European Energy Infrastructures - Past, Present and Perspectives", Policy Paper Nr. 48, Notre Europe, November 2011.



Table of Contents

Executive Summary	p. 1
I. EU Energy Targets and Infrastructure Requirements	p. 5
1.1. EU Energy Scenarios for 2030 and 2050	p. 5
1.2 Overview of Energy Infrastructure Requirements	p. 9
1.3. Electricity Infrastructure Requirements	p. 10
1.4. Natural Gas Infrastructure Requirements	p. 12
1.5. CO ₂ -Pipelines Infrastructure Requirements	p. 14
II. Past and Present Energy Infrastructure Financing in the EU	p. 15
2.1. Overview	p. 15
2.2. The European Investment Bank (EIB)	p. 17
2.3. The TEN-Energy-Program	p. 20
2.4. The European Economic Recovery Plan (EERP)	p. 21
2.5. European Fund for Energy, Climate Change and Infrastructure (Marguerite Fund)	p. 22
2.6. Other instruments	p. 23
III. Case Study: Selected Issues in the North Sea Grid Project	p. 25
3.1. The North Sea Grid: A Number 1 Priority for European Infrastructure	p. 25
3.2. Issues of Planning and Network Design	p. 27
3.3. Overall Welfare Gains Contrast with Winners and Losers	p. 29
3.4. Limited Potential for Merchant Transmission Investment	p. 30
3.5. Conclusion of the Case Study	p. 32

IV. Looking forward: How to ensure the Financing	
of Trans-National Energy Infrastructures in Europe?	p. 35
4.1. The Need for a European Approach	p. 35
4.2. Financing TEN-E projects: the "Connecting Europe Facility"	p. 38
4.3. The EIB and Energy Infrastructure Bonds	p. 39
4.4. The Reform of the EU Budget	p. 40
Conclusion	p. 43
References	p. 45
Annex	p. 51
List of Tables	
Table 1: Projected evolution of renewable electricity generation (TW 2010-2020	h), p.8
Table 2: Business-as-usual, commercially viable and total needed investment by sector 2011-2020	p. 10
Table 3: Total amount of public expenditure in the field of energy (national and EU level), 2009	p. 16
Table 4: EIB Signed Loans for Energy Infrastructure of Trans-Europea Interest in the Period 2007-2009	n p. 19
Table 5: TEN-E Commitments in the Period 2007-2009	p. 21
Table 6: EEPR-Projects in the Electricity Sector	p. 51
List of Figures	
Figure 1: Primary energy consumption by fuel (Mtoe), PRIMES Reference scenario	ence p. 7
Figure 2: Gross power generation mix 2000-2030 by source in TWh at corresponding shares of sources in %, according to the PRIM Reference scenario	
Figure 3: Decarbonisation strategy for Europe at the horizon 2050	p. 7
Figure 4: Trade scenario and meshed scenario	p. 28
Figure 5: Redistribution of rents with trade and meshed scenarios	n. 30