

## Professional Summary

Per Ove Eikeland is specialised in policy analysis and industrial strategic management, with emphasis in studies of environmental affairs, energy and innovation. He is Research Fellow with the European Studies Programme at the Fridtjof Nansens Institute and head of the institute's Energy Studies Group. Per Ove has published a number of articles in academic journals related to policy analysis and environmental affairs. In 1995, he was visiting scholar with the Division of Energy and the Environment at the Lawrence Berkeley National Laboratory, California, USA. He received his Cand. Polit. Degree in Economics from the University of Oslo, Norway and has since 2002 worked part time on his dissertation for the Dr. Oecon degree at BI – The Norwegian School of Management. Defence of the dissertation 'Environmental innovation in the electricity industry – Explaining differences across national industrial innovation systems' is scheduled for autumn 2006. Per Ove is experienced in research project management with clients including the Norwegian Government, the Norwegian Electricity Industry Association and the Research Council of Norway.

## Personal Details

Date of birth	• June 4, 1963
Sex	• Male
Nationality	• Norway
Marital status	• Married, one child

## Education

2002-2006	• Part-time doctoral studies (for the Doctor Oecon degree), <i>Environmental Innovation in the electricity industry</i> , Copenhagen Business School/BI Norwegian School of Management, Department of Innovation and Economic Organisation, Norway
1988-1991	• Cand. Polit., Economics, University of Oslo, 1991, with specialisation in environmental and resource economics and socio-economic planning
1983-1987	• Cand. mag., Political Science, University of Oslo, 1987, with specialisation in International Economic Policy.

## Other relevant academic and professional training

1999	<i>European Summer School on Industrial Dynamics (ESSID)</i> , Institut d'Etudes Scientifiques de Cargèse, France.
1998	<i>European Association for Evolutionary Political Economy (EAEPE)</i> 'Institutions and Technology: Interdisciplinary Perspectives on European Economy and Society in an Era of Rapid Change', Kenmare, Ireland. <ul style="list-style-type: none"><li>• Economy and Society: Interdisciplinary Perspectives on their Interaction and Interpenetration</li><li>• Advanced Theory: Theoretical Frontiers of Institutional and Evolutionary Economics</li></ul>
1997	<i>European Association for Evolutionary Political Economy (EAEPE)</i> : 'Institutions and Technology: Interdisciplinary Perspectives on European Economy and Society in an Era of Rapid Change', Crete, Greece. <ul style="list-style-type: none"><li>• Socio-Economic Evolution: Evolutionary Metaphors, Innovation and Technology</li><li>• Technical Change &amp; Employment Growth in Europe</li></ul>

- 1996 *European Association for Evolutionary Political Economy (EAEPE)* ‘Institutions and Technology: Interdisciplinary Perspectives on European Economy and Society in an Era of Rapid Change’, Ribadesella, Spain.
- Foundation Course: Institutional and Technological Change - Introductory Theory and Methodology
  - Systems of Innovation: Theoretical Issues and European Policy Perspectives

## Employment Record

- 1995 –
- Research Fellow, Fridtjof Nansen Institute (since 1994).
- The main responsibility is to head FNI’s research in energy-related issues, develop and implement research and consulting projects in the fields of environmental, energy and technology policies.
- 1999-
- Visiting researcher and scholarship at BI- Norwegian School of Management, Department of Innovation and Economic Organisation
- Activities have included participation in the doctoral studies programme and research activities organised within the Centre for Energy and the Environment as well as participation in academic discussion groups on institutional economics
- 1994-
- Lecturer and external examiner in institutional resource economics, Norwegian University of Life Sciences, Department of Economics and Social Sciences
- Activities have included development of master study course in institutional resource economics and annual external examiner tasks at the bachelor and master study levels
- 1995
- Visiting Scholar, Lawrence Berkeley National Laboratory, Energy and Environment Division, California, USA
- Activities included studies of the bottom-up modelling approach developed at LBNL as well as co-work on studies of energy efficiency standards in the car industry.
- 1991-1994
- Research Assistant, Fridtjof Nansen Institute (1991-1994).

## Membership in Professional Societies

- *European Association of Evolutionary Political Economy (EAEPE)*, member since 1996
- *International Association for Energy Economics (IAEE)*, member since 1998

## Advisory Positions

- 2000 – Advisor to the editorial board of the Nordic energy journal *Kraftjournalen*  
 2006 – Council member of the Gerson Lehrman Group Policy & Economics Council

## Languages

- |           |                             |
|-----------|-----------------------------|
| Norwegian | • Mother tongue             |
| English   | • Fluent spoken and written |
| German    | • Basic spoken and written  |
| Spanish   | • Basic written             |

## Relevant Publications

### RELEVANT PEER-REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS

- Eikeland, Per Ove (2007). 'Downstream Natural Gas in Europe - High Hopes Dashed for Upstream Oil and Gas Companies'. *Energy Policy*, Vol. 35, No.1, 2007.
- Eikeland, Per Ove and Sæverud, Ingvild Andreassen (2007). 'Market diffusion of renewable energy in Europe – explaining front-runner and laggard positions'. *Energy & Environment*. Vol. 18, No. 1, 2007
- Claes, Dag Harald and Per Ove Eikeland, 'Stormakt i utakt - norsk energi og EUs indre marked' ('Superpower out of step - Norwegian energy and EU's internal market'). In Claes and Tranøy (eds.), *Utenfor, Annerledes og Suveren?* ('Outside, Different and Sovereign?'), Bergen, Fagbokforlaget, 1999, pp. 151-173. In Norwegian.
- Eikeland, Per Ove, 'Electricity Market Liberalisation and Environmental Performance: Norway and the UK'. *Energy Policy*, Vol 26, No 12, 1998, pp. 917-927.
- Eikeland, Per Ove, 'US Environmental NGOs - New Strategies for New Environmental Problems?'. *Journal of Social, Political and Economic Studies*, Vol 19, No 3, 1994, pp. 259-285.
- Eikeland, Per Ove, 'US Energy Policy - at a crossroads?'. *Energy Policy*, Vol 21, No 10, 1993, pp. 987-999.
- Eikeland, Per Ove, 'Distributional Aspects of Multispecies Management: The Barents Sea Large Marine Ecosystem'. *Marine Policy*, Vol 17, No 4, 1993, pp. 256-271.

### OTHER RELEVANT PUBLICATIONS

- Eikeland, Per Ove, *Biofuels - The New Oil for the Petroleum Industry?*. FNI report 15/2005. Lysaker, FNI, 2005. 39 p.
- Eikeland, Per Ove, Henrik Hasselknippe, and Ingvild Andreassen Sæverud, *Energy Sector Integration in Europe - The Role of Leading Upstream Oil and Gas Companies (Summary version)*. FNI report 20/2004. Lysaker, FNI, 2004, 35 p.
- Eikeland, Per Ove, *The Long and Winding Road to the Internal Energy Market - Consistencies and Inconsistencies in EU Policy*. FNI report 8/2004. Lysaker, FNI, 2004, 44 p.
- Rudsar, Kåre, Per Ove Eikeland, Florian Krumbacher and Gunnar Martinsen, *Rettslige rammebetingelser i Danmark og Tyskland og deres innvirkning på strukturutviklingen i elindustrien (The legal framework in Denmark and Germany: Implications for structural development in electricity industry)*. FNI Report 11/99. Lysaker, The Fridtjof Nansen Institute, 1999. In Norwegian.
- Eikeland, Per Ove, Eivind Magnus, Atle Midttun and Berit Tennbakk, *Energiscenarier og Energistrategier ('Energy Scenarios and energy strategies')*. FNI Report 13/99. Lysaker, The Fridtjof Nansen Institute, 1999. In Norwegian.
- Eikeland, Per Ove, Atle Christer Christiansen, Anne Louise Koefoed, Atle Midttun and Kristian Tangen, *Green Energy-Industrial Innovation: A Comparative Study of Green Energy Transformations in Northern Europe*. FNI Report 16/99. Lysaker, The Fridtjof Nansen Institute, 1999.
- Eikeland, Per Ove and Gunnar Martinsen, *Rettslige rammebetingelser i Norge, Sverige og Finland og deres innvirkning på strukturutviklingen i elindustrien ('The legal framework in Norway, Sweden and Finland: Implications for structural development in electricity industry')*. FNI Report 21/98. Lysaker, The Fridtjof Nansen Institute, 1998. In Norwegian.

- Eikeland, Per Ove (1996). Utslipp, spredning av og eksponering for miljøgifter – global trender, FNI Working Paper N:001, 1996 (Lysaker: the Fridtjof Nansen Institute).
- Eikeland, Per Ove, Norway and the UK: *A Comparative Institutional Analysis of Competitive Reforms in the Electricity Supply Industries*. EED Report 3/1995. Lysaker, The Fridtjof Nansen Institute, 1995.
- Eikeland, Per Ove (1993) ‘US Energy Policy in the Greenhouse’, *EED Report Series 1/1993* (Lysaker: The Fridtjof Nansen Institute).
- Eikeland, Per Ove: *US Policies and Politics of Energy Efficiency. The Case of the Fuel Economy of Passenger Vehicles*. 1994, FNI-Report 8/1993, Lysaker: The Fridtjof Nansens Institutt.
- Aarhus, Knut and Eikeland, Per Ove (1993) *Virkemidler i forurensningspolitikken: Sverige, Tyskland, Nederland, Storbritannia og USA*, R:004-1993, Lysaker: The Fridtjof Nansen Institute
- Eikeland, Per Ove (1992) *Multispecies Management of the Barents Sea Large Marine Ecosystem - a framework for analyzing future challenges*, *FNI Report 4/1992* (Lysaker: The Fridtjof Nansen Institute).
- Eikeland, Per Ove and Andresen, Steinar (1992) *Fiskeriforskningens og NFFRs fremtidige innsats innen utviklings og bistandsforskning*, R:003 – 1992, Lysaker: The Fridtjof Nansen Institute

## Select Project Experience (in reversed chronological order)

- 2005-2007    **Norwegian energy technology innovation and diffusion in a global technology market with international commitments.**  
 Position: EU and national energy policy expert  
 Client/funder: the Research Council of Norway/RENERGI programme  
*Description: Policies to promote technology innovation and diffusion will play a key role in reaching Norway's energy and environmental goals. The project evaluates Norwegian policy options when conditioned by international commitments as well as broader international processes. It combines insights from the study of relevant international political processes with use of a systems engineering model. Particular attention is given to EU policy and the implementation of current and emerging EU-directives, and how they may affect the future technology composition of the Norwegian energy system and management of niche markets for new energy technologies.*
- 2002-2006    **Environmental innovation in the electricity industry – Explaining differences across national industrial innovation systems**  
 Position: Doctoral dissertation work  
 Funders: Norwegian School of Management/Fridtjof Nansen Institute/grant from P.M Røwde's Foundation  
*Description: The dissertation documents major variation between Norwegian and Swedish electricity industries in extent of 'environmental innovation', defined as environmental adaptation of incumbent energy technologies, development of new renewable energy technologies and demand-side energy savings products. Similar variation is observed for the state-owned electricity supply companies Statkraft and Vattenfall, which are chosen as embedded sub-cases in the study. An explanatory model is developed with factors at the company, industry and national policy levels. At the company level, variation is documented in general business strategies, innovation capability management and environmental management systems. At the industry level, variation in competitive pressure over time is documented as well as location of the companies within greater national energy-industrial*

*innovation systems. At the national policy level, variation is documented in Norwegian and Swedish energy-sector policy integration of environmental concerns leading to different degree of regulatory pressure on incumbent technology solutions and legitimacy for more adapted technology solutions.*

- 2003-2005 **Integration of the European energy sectors - investment strategies of major oil and gas companies**  
Position: Project Manager  
Client/funder: the Research Council of Norway/PETROPOL-programme  
*Description: The project analysed strategic response by major European oil companies to regulatory changes at the EU and national levels. Variation between the companies concerning vertical integration in gas supply as well as horizontal diversification into electricity generation and renewable energy supply chains was documented. So was national variation in implementation of EU regulations in the field of energy liberalization (gas and electricity market directives) and renewable energy (Renewable Electricity and Biofuels Directives). Variation between member countries in implementation of EU legislation was documented as an important factor behind company variation in strategic investments, all the time the companies already showed variation concerning geographical location of home-markets and major business spheres.*
- 2004 **Dilemmas and vulnerability in EU energy policy – consequences for Norway.**  
Position: Project manager  
Client/funder: The Norwegian Ministry of Foreign Affairs  
*Description: This consultancy project analysed the evolution and coherence between various EU policy instruments for reaching the established goal of energy market liberalisation, environmental sustainability and security of supply. Obstacles to and steps that could enhance coherence were discussed in the project*
- 1997-1999 **Liberalisation and structural development in north-European electricity industries**  
Position: Project Manager  
Client/funder: the Norwegian Electricity Industry Association  
*Description: The project analysed variation in national electricity-industry structural development in northern Europe (Norway, Sweden, Denmark, Finland and Germany) in the 1990s looking at a portfolio of national energy, industry and competition policies as drivers. The project further discussed how variation in national policies/legislation entailed distortion of the principle of free and fair competition in the larger north-European electricity market.*
- 1997-1999 **Green energy-industrial clusters in Europe**  
Position: Project Manager  
Client: the Research Council of Norway/the SAMRAM programme  
*Description: The project studied the construction of dynamic green energy-industrial clusters (energy producers, energy users, technology providers, research institutions, finance institutions and governmental authorities), and conditions for emerging clusters to succeed. Six case studies were conducted, on: bioenergy in Sweden, Finland and Denmark, combined heat and power (CHP) in the Netherlands and Finland, and wind power technology in Denmark. Important drivers of new energy cluster development were stability in institutional configurations between key agents and public policies. The study assesses potential for industry and policy learning to more general sustainable energy policy models*
- 1995 **Global trends in emissions of, diffusion and exposure to persistent organic pollutants (POPs) and heavy metals**  
Position: Project Manager  
Client/funder: Norwegian Pollution Control Authority  
*Description: The project maps and the global situation and status of knowledge concerning emissions of, diffusion and exposure to different pollutants.*

- 1992-1995    **Energy, environment and development environmental concerns in US energy policy policies**  
 Position: energy expert/  
 Client/funder: the Research Council of Norway – the SAMMEN programme  
*Description: The overall focus of the project was the relation between energy, environment and development at the national level, and international cooperation concerning sustainable energy management and global environmental change. A series of country studies analyses the economic, political and institutional factors influencing energy, environment and climate policies. The role of non-state actors like NGOs and energy industries in international environmental affairs is also closely examined. Responsibility for studies on US energy policy and US environmental NGOs as well as for thematic studies on environmental effects of energy sector liberalization.*
- 1993         **Evaluation of instruments in national policies to combat pollution to air, water and soil – the cases of Sweden, Germany, the Netherlands, UK and the USA**  
 Position: US policy expert  
 Client/funder: the Norwegian Ministry of the Environment  
*Description: Responsibility within the project for studies of environmental policy instruments at the US federal level and state level of California. The project submitted information to the Government Commission on Instruments in Environmental Policy.*
- 1992         **Evaluation of efforts in Norwegian development aid-related fishery research**  
 Position: Resource Management Expert  
 Client/funder: the Norwegian Ministry of Fisheries  
*Description: The project submitted material to the Ministry of Fisheries strategic work on development research within Norwegian institutions engaged in research on fishery-related issues*

## **Certification**

I, THE UNDERSIGNED, CERTIFY THAT ALL INFORMATION STATED IN THIS RESUME IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Signature: \_\_\_\_\_ Date of Signing: \_\_\_\_\_