

CV Orvika Rosnes

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Education

2008 Dr. Scient. (PhD in Economics), Department of Economics and Resource Management, Norwegian University of Life Sciences, Norway
Thesis: *Short-term Effects of Long-term Policies: Climate Policies in Power Markets*

1997 Cand. oecon. (Master's Degree in Economics), Department of Economics, University of Oslo, Norway

Professional experience

2011– **Statistics Norway**, Research Department, Energy and Environmental Economics Group. Research Fellow
Research related to climate and energy policies. Responsible for developing a new CGE model for Norway (SNOW). The model is developed in GAMS/MPSGE and has a particular focus on industries that are important for climate policy analyses.

2010–2011 **Norwegian Government Agency for Financial Management**. Senior Advisor
Advising government agencies on cost-benefit analysis. Responsible for developing a web-based handbook for cost-benefit analysis.

2009–2010 Maternity leave (February 2009 – August 2010)

1998–2010 **Econ Analysis/Econ Pöyry**, Power Market Group; Energy Market Reform and Development Group. Economist/Senior Economist
Analyses (short and long term) of European power and carbon markets (EU ETS). Extensive experience with model development in GAMS and model-based scenario analyses, especially the impacts of climate policies, as well as issues related to regulation, market structure and investments in power markets. Analyses of power market reform and restructuring in other areas (South Africa, Botswana, Sub-Saharan Africa, India and the Baltic countries). Development of computable models.

Articles in international refereed journals

Bye, B., T. Fæhn and O. Rosnes (2018): Residential energy efficiency policies: Costs, emissions and rebound effects. *Energy* 143, pp. 191–201. DOI 10.1016/j.energy.2017.10.103

Rosnes, O. (2014): Subsidies for Renewable Energy in Inflexible Power Markets. *Journal of Regulatory Economics* 46, pp. 318–343. DOI 10.1007/s11149-014-9258-7

Rosnes, O. and H. Vennemo (2012): The Cost of Providing Electricity to Africa. *Energy Economics* 34, pp. 1318–1328. <http://dx.doi.org/10.1016/j.eneco.2012.06.008>

Rosnes, O. (2008): The Impact of Climate Policies on the Operation of a Thermal Power Plant. *The Energy Journal* 29 (2), pp. 1–22. DOI 10.5547/ISSN0195-6574-EJ-Vol29-No2-1

Papers under review and invited to revise and resubmit

Bye, B., K. Espegren, T. Fæhn, E. Rosenberg, O. Rosnes (2017): Energy technology and energy economics: Analyses of energy efficiency policy in two different model traditions. Manuscript submitted to *Energy Economics*

Articles in Norwegian refereed journals

Bye, B., K. Espegren, T. Fæhn, E. Rosenberg og O. Rosnes (2016): Energiteknologi og energiøkonomi: Analyser av energipolitikk i to ulike modelltradisjoner, *Samfunnsøkonomen* 6, 43–53

Greaker, M., O. Rosnes (2015): Robuste norske klimamålsetninger. *Samfunnsøkonomen* 1-2015, pp. 67–77

Book chapters in international refereed books

Rosnes, O., A.-F. Sinner and B. Tennbakk (2012): Forecasting CO₂ Prices in the EU ETS. In Q.P. Zheng, P.M. Pardalos, S. Rebennack, N.A. Iliadis, M.V. Pereira (eds.) *Handbook of CO₂ in Power Systems*, pp. 243–274. Springer-Verlag Berlin Heidelberg

Books

Eberhard, A., O. Rosnes, M. Shkaratan and H. Vennemo (2011): Africa's Power Infrastructure. Improving investment, connectivity, reliability and efficiencies. The World Bank Press. Available at <https://openknowledge.worldbank.org/handle/10986/2290>

PhD thesis

Rosnes, O. (2007): Short-term Effects of Long-term Policies: Climate Policies in Power Markets. Department of Economics and Resource Management, Norwegian University of Life Sciences. Dissertation No. 2007:11

The three essays in the thesis investigate how climate policies – primarily intended to have long-term impacts – influence the power markets in the short term, and how the impact depends on the flexibility of the power system.

The thesis consists of three essays and an introduction:

- The Impact of Climate Policies on the Operation of a Thermal Power Plant
- Carbon Costs in Power Markets: The Importance of the Flexibility of Power Plants
- Subsidies to Renewable Energy in Inflexible Power Markets

Two of the essays have been published in refereed journals.

Best PhD Student Paper Award at Energy, Climate and Technology (ECT) Conference 2008, Norway: *Subsidies to Renewable Energy in Inflexible Power Markets*

Discussion Papers

Bye, B., T. Fæhn and O. Rosnes (2015): Residential energy efficiency and European carbon policies: A CGE-analysis with bottom-up information on energy efficiency technologies. *Discussion Paper No. 817*, Statistics Norway, Oslo. Revised version resubmitted to *Energy*

- Rosnes, O. and H. Vennemo (2009): Powering up. Costing power infrastructure needs in Sub-Saharan Africa. *AICD Background Paper 5. The World Bank, Washington DC*. Available at <https://openknowledge.worldbank.org/handle/10986/28073>.
- Rosnes, O. and B. Tennbakk (2007): Carbon Prices and Abatement in EU ETS. *ECON Working Paper 2007-002*, Oslo (also published as Conference Proceedings for the 9th IAEE European Conference, Florence, 2007)
- Rosnes, O. (2002): Climate Policy and Burden Allocation. *ECON Research Report 106/2002*
- Bowitz, E., T. Bye, O. Rosnes and H. Vennemo (2000): The Nordic Electricity Reform: Economic and Environmental Consequences. *ECON Working Paper 3/2000*. Oslo

Other publications, dissemination to the general public

- Rosnes, O. and A.C. Bøeng (2013): Virkninger av EUs energieffektiviseringsdirektiv for Norge. *Økonomiske analyser 5/2013*
- Rosnes, O. (2012): Wind power requires flexible market and subsidy design. *IAEE Energy Forum Third Quarter 2012*. <http://www.iaee.org/en/publications/fullnewsletter.aspx?id=23>
- Rosnes, O. and B. Tennbakk (2008): Subsidier til vindkraft og fleksibiliteten av kraftsystemet: Vindkraft er ikke gratis når møllen er bygd (Subsidies to wind power: wind power is not for free even when the wind mill is built). Paper presented at the Environmental Economic Council of Denmark's Annual Conference on Environmental Economics and Climate Policies (Det Miljøøkonomiske Råds konference), Copenhagen, Denmark. Available at www.dors.dk.
- Rosnes, O. (2007): Renewable Support Policies and Flexibility of Power Market. Conference Proceedings for the 9th IAEE European Conference, Florence, 2007.
- Bowitz, E., O. Rosnes and H. Vennemo (2001): Mer for pengene, men dårligere miljø – kraftbransjen i Norden fra plan til marked. (More value for money, but a worse environment – the electricity industry in the Nordic countries from plan to market). Ch. 1 in A.Ø. Røvik (ed.): *Energi og miljø ved et tidsskille – samfunnsfaglige perspektiver fra forskningsprogrammet SAMRAM*. Norwegian Research Council. Based on Bowitz, E., T. Bye, O. Rosnes and H. Vennemo (2000): The Nordic Electricity Reform: Economic and Environmental Consequences. *ECON Working Paper 3/2000*. Oslo

Selected reports

The list does not include publications in Econ Reports series.

- Fæhn, T., E.T. Isaksen and O. Rosnes (2013): Kostnadseffektive tilpasninger til togradersmålet i Norge og EU fram mot 2050. *SSB Rapporter 39/2013*
- Bøeng, A.C. and O. Rosnes (2013): Konsekvenser av Energieffektiviseringsdirektivet i Norge: Energieffektiviseringsforpliktelser og kraftbalanse. *SSB Rapporter 26/2013*
- Rosnes, O. and B. Tennbakk (2002): Marginal elproduksjon och CO₂ utsläpp i Sverige (Marginal Electricity Production and CO₂ Emissions in Sweden). *Report 14:2002*, Swedish Energy Agency. Available at www.energimyndigheten.se
- Rosnes, O., S. Eriksson and A. Gabrielson (2002): Power Sector Reform in the Baltic States. *Report 15:2002*, Swedish Energy Agency. Available at www.energimyndigheten.se
- Davis, M., E. Dugstad, T. Eliasson, K. Roland, O. Rosnes, J.A.Snoen (2002): *Testing times: The Future of the Scandinavian Electricity Industry*. Econ Analysis, Oslo.

Presentations at research conferences

- 2017 15th IAEE European Conference, Vienna, Austria: *Energy technology and energy economics: Energy policy analysis in two different model traditions* (co-authored with Brita Bye, Kari Espegren, Taran Fæhn, Eva Rosenberg)
- 2016 International Energy Workshop (IEW), Cork, Ireland: *Residential energy efficiency and carbon policies: Rebound effects and emissions. A CGE-analysis with bottom-up information on energy efficiency technologies* (co-authored with Brita Bye and Taran Fæhn)
- 2016 39th IAEE International Conference, Bergen, Norway: *Residential energy efficiency and carbon policies: Rebound effects and emissions. A CGE-analysis with bottom-up information on energy efficiency technologies* (co-authored with Brita Bye and Taran Fæhn)
- 2015 Workshop New Developments in CGE Modeling, Mannheim, Germany: *Residential energy efficiency and European carbon policies: A CGE-analysis with bottom-up information on energy efficiency technologies* (with Taran Fæhn)
- 2012 International Energy Workshop (IEW), Cape Town, South Africa: *The cost of providing electricity to Africa* (co-authored with Haakon Vennemo)
- 2008 Energy, Climate and Technology (ECT) Conference, Bergen, Norway: *Subsidies to Renewable Energy in Inflexible Power Markets*. Best PhD Student Paper Award
- 2008 The Environmental Economic Council of Denmark's Annual Conference on Environmental Economics and Climate Policies (Det Miljøøkonomiske Råds konference), Copenhagen, Denmark: *Subsidies to wind power: wind power is not for free even when the wind mill is built* (co-authored with Berit Tennbakk)
- 2008 Nordic Workshop on Electricity Economics (NOREL), Stockholm, Sweden: *Subsidies to Renewable Energy in Inflexible Power Markets*
- 2008 Conference on Resource Use and Economic Dynamics (SURED), Ascona, Switzerland: *Carbon Costs in Power Markets: The Importance of the Flexibility of Power Plants*
- 2007 9th IAEE European Conference, Florence: *Renewable Support Policies and Flexibility of Power Market*
- 2007 9th IAEE European Conference, Florence: *Carbon Prices and Abatement in EU ETS* (co-authored with Berit Tennbakk)
- 2007 Annual Research Conference of Norwegian Economists' Association (Forskermøtet for økonomer): *Support to Wind Power and Flexibility of Coal-Fired Power Plants*
- 2006 Annual Research Conference of Norwegian Economists' Association (Forskermøtet for økonomer): *Climate Policies in Power Markets: The Importance of Start-up Costs in Power Plants*
- 2005 Annual Research Conference of Norwegian Economists' Association (Forskermøtet for økonomer): *Climate policies and power market: The impact of climate policies on the operation of thermal power plants*
- 2004 6th IAEE European Conference, Zürich: *Climate policies and power market: The impact of climate policies on the operation of thermal power plants*

Awards and prizes

Best PhD Student Paper Award at Energy, Climate and Technology (ECT) Conference 2008, Norway:
Subsidies to Renewable Energy in Inflexible Power Markets

Visiting researcher affiliations and scholarships

- 2005 Young Scientists' Summer Program (3 months) at International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria. Affiliated with the Environmentally Compatible Energy Strategies (ECS) Program. Scholarship from the Research Council of Norway.
- 2003–2004 Visiting scholar, Department of Agricultural and Resource Economics, University of California, Berkeley, USA. Scholarship from the Research Council of Norway.
- 1995–1996 Ruhrgas-scholarship, Universität Mannheim, Germany

Teaching and supervision experience

- 2017 Co-supervisor of Carl Frederik Kontny (Master thesis in NMBU)
- 2014–2015 Responsible for visiting researcher Ma GuoXia (PhD) from the Chinese Academy of Environmental Planning (CAEP), who stayed at SSB four months in 2014–2015 to learn CGE-modelling with the aim of building a CGE-model for China.
- 2010–2011 Courses on cost-benefit analysis for employees of various government agencies
- 2007 Lecturer at course on power market regulation, India
- 2006 Lecturer at course on power market modelling for Ministry of Energy and Minerals, Tanzania
- 2002–2006 Lecturer at seminars on different topics on the structure, market arrangements and regulatory system of the Nordic power market, organized by Norwegian Water Resources and Energy Directorate (NVE) for delegates from developing countries.
- 2001 Training of the National Electricity Regulator (NER) staff on newly developed and installed electricity market model and model-based analysis. Two-week full-time course in Johannesburg, South Africa

Selected projects in SSB

- 2017– SmartPaths – Smart paths and costly detours towards a sustainable low-emission society. *Research Council of Norway*
- 2013– CGE-model contract with the *Ministry of Finance*. Project leader since 2017.
- 2011– CREE – Oslo Centre for Research on Environmentally Friendly Energy. *Research Council of Norway*. Mainly involved in Work package 5
- 2015–2016 WILL. *Research Council of Norway*
- 2012–2015 ENTRACTE (Economic iNsTRuments to Achieve Climate Targets in Europe), *European Union's Seventh Framework Programme for research, technological development and demonstration*
- 2012–2013 Kostnadseffektive tilpasninger til togradersmålet i Norge og EU fram mot 2050. *Ministry of Finance*
- 2012 Konsekvenser av Energieffektiviseringsdirektivet i Norge. *Energi Norge*