

CURRICULUM VITAE

Professor Lena Neij

International Institute for Industrial Environmental Economics (IIIEE), Lund University
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Name: Lena Neij (née Christiansson)

Born: Lund, Sweden, February 25, 1966

Citizenship: Swedish

Civil status: Married, Two children, born 1997 and 2000

Research interests

Lena Neij is Professor and Director at the International Institute for Industrial Environmental Economics at Lund University, Sweden. Her research is focused on the dynamics of the energy system and the analysis of governance and policies for more sustainable development. The core issue has been development and assessment of methods for analyzing the dynamics of energy systems in view of technical change, i.e. development, introduction, and diffusion of new technology, and policy measures for effecting and accelerating technical change. The research, which has been system based and interdisciplinary, has covered energy for sustainable development in general, with a focus on renewable energy technologies and energy efficiency in buildings. Lena Neij also coordinated several initiatives related to sustainable Urban development.

Education

Docent in Industrial Environmental Economics, Lund Institute of Technology, Sweden, 2004

Ph.D. in Environmental and Energy System Studies, Lund Institute of Technology, Sweden, 1999

M.Sc. in Engineering (Chemical), Lund Institute of Technology, Sweden, 1991

Positions held:

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| 1992-1999 | Doctoral candidate, Environmental and Energy System Studies (EESS), Lund University.
Parental leave in 1997-1998. |
| 1999-2003 | Assistant Professor, EESS, Lund University. Parental leave in 2000-2001. |
| 2003-2003 | Associate Professor and Director of graduate studies at EESS, Lund University. |
| 2003-2006 | Associate Professor at International Institute for Industrial Environmental Economics (IIIEE), Lund University. |
| 2006- | Professor at International Institute for Industrial Environmental Economics (IIIEE), Lund University. |
| 2010- | Director at International Institute for Industrial Environmental Economics (IIIEE), Lund University. |

Assignments (selected)

- Member of Energiutvecklingsnämnden (EUN), Decision board for research funded by the Swedish Energy Agency, 2005-
- Member of the advisory group (Programråd) of the research program “ Efficient energy use in buildings with a high cultural value” (Energieffektivisering i kulturhistoriskt värdefulla byggnader), 2007-2009
- Member and co-author of Global Energy Assessment, 2007-; (<http://www.iiasa.ac.at/Research/ENE/GEA>)
- Member of the Editorial board of International Journal of Energy Technology and Policy (IJETP), 2001-
- Co-ordinator (organiser) and panel leader of the European Council for an Energy Efficient Economy (ECEEE) conference in Nice 2003 and 2009; and 9th IAEE/AIEE European Energy Conference Energy Markets and Sustainability in a Larger Europe", Florence, Italy, 2007
- Swedish expert in the IEA project INDEEP (DSM Annex1), 1998- 2000; the IEA project Evaluation guidebook (DSM Annex1), 2002 – 2005; and the IEA project White certificates (DSM Annex 1), 2004-2006
- Participation in an international evaluation group evaluating the energy related activities at the International Institute of Applied Systems Analysis (IIASA), Vienna, 2004

Publications - papers in academic journals (peer- reviewed)

- Christiansson L. (1996), "Electricity Demand Options - in a Time-Dynamic Framework", Tekn. Lic. thesis, Department of Environmental and Energy Systems Studies, Lund University.
- Swisher J., Christiansson L., and Hedenström C., (1994), Dynamics of Energy Efficient Lighting, *Energy Policy*, Vol. 22, No. 7, pp. 581-594.
- Christiansson, L., (1996), Time Dynamics of Electricity Demand in Air-Distribution Systems for Commercial Buildings in Sweden, *Energy-The International Journal* Vol. 21, No. 10, pp. 879-888.
- Neij L., (1997), Use of experience curves to analyse the prospects for diffusion and adoption of renewable energy technology, *Energy Policy*, Vol. 23, No. 13, pp. 1099-1107.
- Neij L. (1999), "Dynamics of Energy Systems - Methods of analysing technology change", Doctoral thesis, Department of Environmental and Energy Systems Studies, Lund University.
- Neij L., (1999), Cost dynamics of wind power, *Energy-The International Journal* Vol. 24, No. 5, pp. 375-389.
- Neij L., (2001), Methods to evaluate market transformation programs – experience of the Swedish market transformation program, *Energy Policy*, Vol. 29, pp. 67-79.
- Neij L., (2003) The Development of the Experience Curve Concept and its Application in Energy Policy Assessment, *Energy, Technology and Policy*, Vol 2., pp.3-14.
- Neij L., Andersen P.D. and Durstewitz M., (2003), Experience Curves for Wind Power , *Energy, Technology and Policy*, Vol 2., pp.15-32.
- Langniss O. and Neij L., (2004), International learning with wind power, *Energy and Environment*, 15 (2), pp. 175-186
- Nilsson L, Johansson B., Åstrand K., Ericsson K., Svenningsson P., Börjesson P., and Neij L., (2004) Seeing the wood for the trees: 25 years of renewable energy policy in Sweden, *Energy for Sustainable Development*, Vol. 8(1), pp 67-81.
- Åstrand K. and Neij L., (2006), Policy constraints on wind power development? An assessment of public wind power programs in Sweden, *Energy Policy*, Vol.34, pp.277-296.
- Neij L. and Åstrand K. (2006), Outcome indicators for the evaluation of energy policy instruments and technical change, *Energy Policy*, Vol. 34/17 pp. 2662-2676.
- Neij L. (2008), Cost development of future technologies for power generation – A study based on experience curves and complementary bottom-up assessments, *Energy Policy*, 36, pp.2200-2211.
- Mundaca L., Neij L., Labanca N., Dulessis B. and Pagliano L., (2008), Market behaviour and the to-trade-or-not-to-trade dilemma in "Tradable White Certificate" schemes, *Energy efficiency*, 1 (4), pp. 323-347
- Mundaca, L. & Neij, L. (2009). A multi-criteria evaluation framework for 'Tradable White Certificate' schemes. *Energy Policy* 37(11): 4557–4573
- Mundaca L., Neij L., Worell E. and McNeil M., (2010) Evaluating Energy Efficiency Policies with Energy-Economic Models, *Annual Review of Environment and Resources* 35: 305-44

Publications - Conference papers (peer- reviewed where indicated)

- Swisher J., and Christiansson L., (1993), "The dynamics of energy efficient lighting in Sweden: How much can really be achieved and how fast?" (*peer-reviewed*), *Proceeding at the 2nd European Conference on Energy-Efficient Lighting*, The Netherlands.
- Christiansson L., and Swisher J., (1994), "Energy efficient lighting in Sweden - Standards" (*peer-reviewed*), *Proceeding at the conference of Management and its Widespread Dissemination in Central and Eastern Europe*, Energy Efficiency 2000 Project Steering Committee, Kiev, 10-22 April.
- Christiansson L., and Swisher J., (1995), "Dynamics of Energy-Efficient Technology for Commercial Buildings in Sweden: How much can really be achieved and how fast?" (*peer-reviewed*), *Proceedings of the 1995 ECEEE Summer Study*, Mandelieu, France, June.
- Neij L., (1997), "Using Experience Curves to Analyse the Diffusion of PV Modules and Wind Turbines" Paper presented at the workshop "Technological and Industrial Renewal of the Energy Sector" Särö, Sweden, May 28-29.
- Neij L., (1997), "Market transformation by technology procurement - The Swedish experience", *ENER Bulletin*, No. 20.
- Neij L., (1998), "Analysis of technology change in the energy sector: The use of experience curves to analyse cost reduction of renewable energy technology", *ENER Bulletin*, No. 22.
- Neij L., (1998), "Studenters inställning till inlärning", bidrag till Idèdagarna, Lunds Universitet, 15-16 Juni.
- Neij L., (1999), "Experience curves for wind turbines", *Proceedings of the IEA Workshop on Experience curves for policy making - the case of energy technologies*, Stuttgart, 10-11 May.

- Neij L., (1999), "Evaluation of Swedish market transformation programmes" (*peer-reviewed*), *Proceedings of the 1999 ECEEE Summer Study*, Mandelieu, France, June 1999.
- Neij L., (2000), "Lärkurvor som analys- och urvärderingsredskap: Lärkurvor för vindkraft", Energitinget, Eskilstuna.
- Neij L., (2000), "Metoder för utvärdering av strategiska styrmedel för effektivare energianvändning", Energitinget, Eskilstuna.
- Neij L., (2002), "Effektiva styrmedel inom energiområdet: metoder för utformning och utvärdering", Energitinget, Eskilstuna.
- Neij L., Dannemand Andersen P., and Durstewitz M., (2003), "The use of experience curves for assessing energy policy programmes", *Proceedings of the EU/IEA Workshop on Experience curves – a tool for energy policy analysis and design*, Paris, 22-24 January.
- Langniss O. and Neij L., (2003), International learning with wind power, *Proceedings of the European network of energy economics research (ENER) conference*, Bucharest, Romania, October 16-17.
- Neij L., (2004) A systems approach for the analysis of energy policy and learning, *Proceedings of the Innovation, Sustainability and Policy Conference*, May 2004, Seon, Germany.
- Johansson, T.B., McCormick, K., Neij, L. and Turkenburg W., (2004), "The Potentials of Renewable Energy", (*peer-reviewed*), *Thematic Background Paper for the International Conference for Renewable Energies*, Bonn, Germany, June, 2004.
- Neij, L. and Åstrand K. (2005), "Evaluating energy efficiency policy using outcome indicators", (*peer-reviewed*), *Proceedings of the 1995 ECEEE Summer Study*, Mandelieu, France, May-June 2005.
- Neij, L., Börjesson, P., Rosenqvist, H. and Berndes G., (2005), Prospects of cost reduction for lignocellulosic ethanol in Sweden – a methodological approach, *Proceedings of the 14th European Biomass Conference & Exhibition: Biomass for Energy Industry and Climate Protection*, Paris, October 2005.
- Börjesson, P., Berndes G., Rosenqvist, H. and Neij L., (2005), Reduced costs of transportation fuels from willow – improved feedstock production systems and market development, *Proceedings of the 14th European Biomass Conference & Exhibition: Biomass for Energy Industry and Climate Protection*, Paris, October 2005.
- Rosenqvist, H., Börjesson, P., Berndes G. and Neij L., (2005), The prospects of cost reductions in willow production, *Proceedings of the 14th European Biomass Conference & Exhibition: Biomass for Energy Industry and Climate Protection*, Paris, October 2005.
- Neij L., Kiss B. and Jakob M, (2008), (*peer-reviewed*), Market transformation for energy efficiency a case study of the introduction and diffusion of heat pumps in Sweden and Switzerland; *Proceedings of DIME International Conference "Innovation, sustainability and policy. Bordeaux, September.*
- Kiss, B. and Neij L., (2009), Market transformation for energy efficient building technologies - what can we learn for policy intervention in Sweden?, *Proceedings of Energitinget Stockholm.*
- Neij L., Mundaca L., and Moukhametshina E., (2009), Choice-decision determinants for the (non-)adoption of energy-efficient technologies in households, (*peer-reviewed Proceedings of 2009 ECEEE Summer Study*, France.

Publications - Book chapters

- Christiansson L., Mårtensson A., Nilsson L.J. and Swisher J., (1994), "End-use energy efficiency and analysis", in Lundgren L.J., Nilsson and Schlyter P. (eds.) *Expanding environmental Perspectives*, Lund University Press, Lund, Sweden.
- Neij L. and Öfverholm E., (2001), "Strategies for improving energy efficiency", in Silveira S. (ed.) *Building sustainable energy systems - Swedish experience*, Swedish National Energy Administration.
- Neij L., and Öfverholm E. (2002), "Tekniken bidrag till effektivare energianvändning", i *Effektivare energianvändning i bostäder – en antologi om framtidens styrmedel*, Boverket, Naturvårdsverket, Energimyndigheten.
- Johansson, T.B., McCormick, K., Neij, L. & Turkenburg, W.C. (2006) The Potentials of Renewable Energy. In: Abmann, D., Laumanns, U. & Uh, D. (eds) *Renewable Energy: A Global Review of Technologies, Policies, and Markets*. London: Earthscan.
- Sark, W.G.J.H.M., Nemet G.F, Kahouli-Brahmi S. Neij L. And Wene C.-O, (2010), General aspects and caveats of experience curve analysis, in *Technological Learning in the Energy Sector -Lessons for Policy, Industry and Science*, edited by Martin Junginger, Wilfried van Sark and André Faaij, Copernicus Institute, Utrecht University, The Netherlands, Edward Elgar Publishing.

Neij L, et al. (2010), Wind energy onshore, in Technological Learning in the Energy Sector -Lessons for Policy, Industry and Science, edited by Martin Junginger, Wilfried van Sark and André Faaij, Copernicus Institute, Utrecht University, The Netherlands, Edward Elgar Publishing.

Neij L, et al. (2010), Offshore wind energy, in Technological Learning in the Energy Sector –Lessons for Policy, Industry and Science, edited by Martin Junginger, Wilfried van Sark and André Faaij, Copernicus Institute, Utrecht University, The Netherlands, Edward Elgar Publishing.

Publications - Reports

Swisher J., and Christiansson L., (1994), "Dynamics of energy efficiency in lighting and other commercial uses in Sweden", IMES/EESS Report No. 15, April.

Brink L., Christiansson L., Mårtensson A., (1995) "Energy efficiency in buildings", in Block K., Turkenburg W.C., Eichhammer W., Farinelli U. and Johansson T.B (eds) *Overview of Energy R&D&D Options for a Sustainable Future*, Project report to the European Commission.

Christiansson L.,(1995), "Diffusion and learning curves of renewable-energy technologies", IIASA Report WP-95-126, International Institute for Applied Systems Analyses, Wien.

Christiansson, L., (1996), "Dynamics of Electricity Efficiency in Commercial Air-Distribution Systems in Sweden", IMES/EESS Report No. 21, April.

Vreuls H., Neij L., Kofod C., Conzalez G., (2000), Final report Developing INDEEP 1994-2000, A report on Task 1 International Database on Energy Efficiency Programmes, International Energy Agency (IEA) – Implementing agreement on Demand-Side Management, Novem, the Netherlands.

Neij, L., Dannemand Andersen, P., Durstewitz, M., Helby, P., Hoppe-Kilpper, M., Morthorst, P.E., (2003), Experience Curves: A Tool for Energy Policy Assessment, Final report of the EC project Experience Curves: A Tool for Energy Policy Assessment (contract ENG1-CT2000-00116)

Åstrand K., and Neij L., (2003), Styrmedel för vindkraftens utveckling i Sverige, IMES/EESS Report 46.

Neij L., (2004), Metoder för utvärdering av klimatpolitiska styrmedel, Rapport på uppdrag av Naturvårdsverket.

Evander A., Sieböck G. And Neij L., (2004), Diffusion and development of new energy technologies: lessons learned in view of renewable energy and energy efficiency end-use projects in developing countries, IIIIEE Report 2004 : 2, Lund Sweden.

Vreuls H., de Grootte W., Back P., Schalburg R., Dyhr-Mikkelsen K., Bosseboeuf D., Celi O., Kim J-D. and Neij L., (2005), Evaluating Energy Efficiency Policy Measures & DSM programmes – Evaluation Guidebook, International Energy Agency (IEA) – Implementing agreement on Demand-Side Management, SenterNovem, the Netherlands.

Mundaca, L. and Neij, L., (2006) Tradeable White Certificate Schemes - What can we learn from early experiences in other countries? A Swedish national report in the context of the IEADSM Task XIV Market Mechanisms for White Certificates Trading.

Neij, Lena & Mundaca, Luis Vita certifikat - Vad kan vi lära från tidiga erfarenheter i andra länder? [Tradeable White Certificate Schemes - What can we learn from early experiences in other countries?] A Swedish national report in the context of the IEADSM Task XIV Market Mechanisms for White Certificates Trading.

Neij L., Peck P., Kåberger T. and Johansson TB., (2007), Utbyggd naturgas i Sverige: Hinder för inhemska energislag och klimatmålen?, Rapport 5701, Naturvårdsverket.

Neij L., (2006), Referensscenarier – för utvärdering av styrmedel för effektivare energianvändning, ER 2006:27, Energimyndigheten.

Carlstedt, N-E., Karlsson, B., Kjellsson, E., Neij, L., and Samuelsson, O., 2007, Konkurrenskraft för nätansluten solcell i Sverige -sett ur kraftföretagens och nätägarnas perspektiv, Elforsk rapport 07:17

Neij L., Borup, M., Blesl M., and Mayer-Spohn, O., (2007), Cost development – an analysis based on experience curves, Final report of the EC project NEEDS, New Energy Externalities Developments for Sustainability, (Project no: 502687).

Mundaca L. and Neij L., (2007), Policy recommendations for the assessment, implementation and operation of TWC schemes, Report within the The EuroWhiteCert project (contract no. EIE/04/123/S07.38640),

Mundaca L. and Neij L., (2007), Package of policy recommendations for the assessment, implementation and operation of TWC schemes , Final report within the The EuroWhiteCert project (contract no. EIE/04/123/S07.38640).

Neij L. and Mundaca L., (2007), Handbook for the design and evaluation of TWC schemes, Final report within the The EuroWhiteCert project (contract no. EIE/04/123/S07.38640).

Neij L. and Mundaca L., (2007), Svensk sammanfattning – EuroWhiteCert Stepwise towards European energy efficiency policy portfolios involving White Certificates

Neij L. (2007), Barriärer och styrmedel för en effektivare energianvändning; report for "M2006:06 Utredning om genomförande av EU:s direktiv 2006/32 om effektiv slutanvändning av energi och om energitjänster"