

SOREN KROHN

Name of Firm:	Søren Krohn Consulting
Name of Staff:	Soren Krohn
Position:	CEO, Consultant
Date of Birth:	January 15th, 1947
With SKC Since:	July, 2003
Nationality:	Danish
Membership in Professional Societies:	Danish Wind Energy Association (previously CEO), European Wind Energy Association (previously Vice President)

SYNOPSIS

Mr. Krohn is a professional economist with 27 years of experience in analysis and policy design related to wind energy, wind energy R&D, economics, taxation and international trade. Since 1994 when he became CEO of the Danish Wind Industry Association he has worked on wind energy issues at national, European Union and international level. His experience ranges from wind programme and project assessment, electricity tariffs, subsidies, tax and transmission grid codes to spatial planning, turbine manufacturing capabilities and requirements, and the assessment of R&D projects in wind energy. He is the author of the first comprehensive research strategy written for the Danish wind industry. Likewise, he has advised the European Commission on wind energy research priorities.

Mr. Krohn has worked as an independent wind energy consultant since 2003. Major projects include advice on the formulation of tendering conditions and assessment of the bids in the World's largest (1,000 MW) wind energy tender for Hydro-Québec, Québec, Canada; work for Garrad Hassan Limited, UK, on local acceptance of wind projects in Europe; and editing the R&D strategy for the European Wind Energy Association. He has advised on international transmission grid issues for Airtricity, Ireland. Previous consultancy work includes an international study for the Québec energy regulator, Régie de l'énergie on experiences building a local wind industry in Spain, Germany and Denmark, and on wind energy policy in the same countries plus the UK. Mr. Krohn was an expert witness on wind energy for the Régie de l'énergie in Québec on local wind turbine manufacturing.

As Vice President and founding member of the European Wind Energy Association (EWEA) Mr. Krohn has been a key figure in policy design in multiple country settings. He has headed delegations to emerging markets to discuss wind energy feasibility in both industrialized countries (ranging from Norway and France to Australia) to developing and middle-income countries (ranging from the People's Republic of China to Turkey). He has given presentations on wind energy technology and economics for international institutions such as the UN COP Conferences in Geneva, Buenos Aires and Bonn, the Asian Development Bank, the World Bank Group, IFC etc.

In addition to numerous articles on regulatory issues, policies for renewables, green certificates, offshore wind energy, energy balances and employment creation from wind energy plus editorial work for two wind energy magazines, Mr. Krohn has authored the Guided tour of Wind Energy on the web site windpower.org. The site has some 250 pages plus software on meteorology, wind technology, electrical, environmental and economic issues related to wind. This work has become a standard reference work for wind energy educators worldwide, and is used for internal training courses by e.g. FPL, GE and Danish turbine manufacturers. He has supervised the translation in five languages: German, Spanish, French and Danish in addition to the original English version. His web site has received numerous citations as a top quality educational resource, from e.g. the U.S. Department of Education and the US Science Teachers' Association.

In 1999 Mr. Krohn was awarded the prestigious top European wind energy award, the Poul la Cour Prize for Extraordinary Contributions to the Development of Wind Energy from the European Commission and the European Wind Energy Association, EWEA.

Mr. Krohn speaks fluent English, French, Danish (Swedish, Norwegian) and German and has a solid academic background. He obtained a masters degree in Economics specializing in econometrics and statistics at the University of Copenhagen (Denmark). He has been teaching economics at the University of Copenhagen and has been an external examiner for MBAs in International Business Economics at the Copenhagen Business School since 1986. He has been teaching engineers on the relationship between economics and engineering in the wind industry, and given lectures at various technical and business universities. Mr. Krohn has studied and worked in Denmark, Belgium, France, USA and Canada.

EDUCATION

1977 Masters Degree in Economics (University of Copenhagen, Denmark) (Grade 10.4)
 ->1977 High School (math major) in Denmark, + 1 year in the USA and France

PROFESSIONAL EXPERIENCE

2003-

Søren Krohn Consulting, Holte, Denmark

CEO, responsibilities:

- Consultancy work on technical, economic and policy issues related to wind energy;
- Design of tendering conditions for power purchasing contracts for wind energy (for Hydro-Québec, Montréal, Québec);
- Technical and economic assessment of bids in tender for 1,000 MW of wind power; (for Hydro-Québec, Montréal, Québec)
- Local acceptance of wind projects, regulatory and institutional issues; (for Garrad Hassan Limited, Bristol, UK)
- International transmission grid issues and regulations; (for Airtricity, Dublin, Ireland)
- Offshore wind energy, technical, economic and spatial planning issues; (for Capewind Associates, USA)
- Research, development and demonstration policy for wind energy; (for the European Wind Energy Association)
- Renewable industry strategy development; (for Biofuel Region, Sweden)
- Long-term technology trends in wind energy (ongoing); (for BTM Consult, Denmark)
- Expert witness assessment of wind-diesel proposals for Centre Hélios, Montréal, Québec for la Régie de l'énergie, Montréal, Québec (ongoing)
- Feasibility study on large-scale wind projects in various North American jurisdictions (ongoing) (for an American developer)
- Building a local wind industry, (previous consultancy work from 1998) (for la Régie de l'énergie, Montréal, Québec)

1994-2003

Danish Wind Industry Association (DWIA), Copenhagen, Denmark

CEO, responsibilities:

- Wind energy policy analysis and design at national, European Union and international level;

- Wind industry spokesman at national and European level;
- Development of R&D and education & training strategy for the Danish wind industry;
- Development of wind research priorities for the European Commission Energy & Research directorates;
- Editor and authoring work for the magazines Vindformation and WindPower Notes;
- Authoring of Guided Tour of Wind Energy on windpower.org;
- Supervision of staff of 11 engineers, economists, journalists, translators, web designers, IT apprentices.
- Founding member and Vice President of EWEA, the European Wind Energy Association;
- Board member of EREC, European Renewable Energy Council;
- Head of numerous international delegations on behalf of EWEA on the feasibility of wind energy in emerging markets (e.g. China, Turkey, Norway, Australia) and presentations for the Asian Development Bank, the World Bank Group, IFC etc.;
- Member of Danish National Wind Energy Research Committee for eight years, assessing wind research programmes and projects;
- Member of research steering groups on e.g. aeroelasticity, offshore wind;
- Member of appointment committee for scientists at Risoe National Laboratory, Risoe, Denmark;
- Member of several working groups on wind energy education;
- Member of Consultative Committee on Green Certificates for the Danish Energy Authority;
- Member of Consultative Committee for a Danish Energy Strategy for the Danish Ministry of Energy;
- Member of Committee on Environmental Impact Assessments for Wind Turbines for the Danish Ministry of the Environment;
- Member of Committee on Aerial Marking of Wind Turbines (aeronautical safety) for the Danish Ministry of Transport;
- Member of the Energy Exports Consultative Committee of the Danish Minister of Energy;
- Member of the European Union Consultative Energy Committee, appointed by the European Commission;
- Member of the Poul la Cour Prize Awards Committee, European Wind Energy Association;
- Member of scientific committees doing peer reviews of scientific papers for international wind energy conferences, 1995, 1996, 1996, 1999, 2000, 2001, 2003, 2004;
- Member of the board of directors and CEO of DanWEA, the Danish Wind Energy Association;
- Member of the board of directors of EMD, Aalborg, Denmark (wind software company);
- Member of the board of directors of the Association for Wind Turbine Operation & Maintenance Inspection;
- Received the European Poul la Cour Prize for Extraordinary Contributions to the Development of Wind Energy from the European Commission and The European Wind Energy Association in 1999;
- Received the Danish Wind Turbine Prize from the Danish Wind Turbine Owners' Association in 1998;
- Received the Renewable Energy Prize from the Danish Minister of Energy in 1997 on behalf of DWIA.
- Founder of the non-profit Poul la Cour Foundation (owner of Poul la Cour Wind Energy Science Museum);

1985-1994

Federation of Danish Industries, Copenhagen, Denmark

- Director, International Affairs and Economic Affairs Departments, responsibilities:
- Spokesman for the association on European Union (EU) issues;
- Coordinator, speechwriter and advisor to the CEO on cross-disciplinary European Union issues, international trade and industrial policy issues;
- Policy analysis and design for trade policy, international trade disputes, technical barriers to trade (all sectors and subjects), EU single market issues, co-ordination of information campaigns on EU treaty revisions.
- Very extensive information and publication work with hundreds of speeches, television, radio debates, press interviews and publications on EU and global trade and industry issues;
- Supervision of Staff of 13, mostly economists and lawyers;
- From 1989-1994 about 40% work in Brussels as a permanent delegate to do liaison work with the EU institutions and lobbying groups.

1981-1985

Federation of Danish Industries, Copenhagen, Denmark

- Deputy Director, Economic Affairs Departments, responsibilities:
- Spokesman on corporate taxation and financial sector regulation issues;
- Briefing and speech writing for the president and CEO;
- Policy analysis and design for industrial policy, financial sector regulation, indirect taxation and corporate tax issues, economic issues related to environmental and energy policy;
- Supervision of macroeconomic forecasting and policy analysis using macroeconometric models;
- Surveys of manufacturing industry on investment climate, industrial policy and barriers to trade;
- European Union economic and monetary policy;
- Staff of 4 economists + 1 clerical employee + 3 part time students.

1979-1981

Danish Employers' Confederation and Federation of Danish Industries, Brussels, Belgium

- Head of European Union Liaison Office, responsibilities:
- Permanent delegate to UNICE, Union des Confédérations de l'Industrie et des Employeurs d'Europe.
- Liaison work with the institutions of the European Union covering the complete range of policy issues relevant to industry, focusing on single market issues and social affairs (i.e. labour market issues).
- Publications work on investment climate in Denmark.
- Staff of 2.

1977-1979

Federation of Danish Industries, Copenhagen, Denmark

- Head of Section, Economic Affairs Department, responsibilities:
- Head of macroeconometric modelling unit.
- Policy advisor on economic, monetary and fiscal policy, industrial policy (structural policies).
- Analysis of economic aspects of energy and environmental policies.
- Analysis of indirect taxation and corporate taxation issues.

1975-1977

Amagerbanken, Copenhagen, Denmark

Financial planning consultant in banking, responsibilities:

- Portfolio optimisation strategies, bond market yield and optimal bond arbitrage modelling.

1968-1977

Amagerbanken, Copenhagen, Denmark

- Programmer, systems programmer, systems developer dealing with the planning and development of banking systems, including personnel data, accounts, interest calculation, management of stocks and bonds, client load forecasting, bond arbitrage transaction modelling, customer asset and liability portfolio optimisation, optimal random sampling for audits.

1971-1976

Copenhagen University, Institute of Economics, Copenhagen, Denmark

- Assistant lecturer in economics. (From 1975 at the Institute of Law)

LANGUAGES SPOKEN

Language	Under- standing	Speak	Read	Write	Code
Danish	A	A	A	A	A- Professional Fluency: Able to work independently in the language, including the preparation of written reports and papers. Able to participate actively in and/or lead meetings conducted in the language. B- Working Knowledge: Able to follow work-related discussions and participate in them, although command of grammar and syntax may be uncertain. Able to use the telephone, to read and understand work-related documents, and to draft basic correspondence. C- Limited Knowledge: Able to understand simple conversations and written texts.
English	A	A	A	A	
French	A	A	A	A/B	
German	A	B	A	B	
Spanish	C	C	C	C	
Italian	C	C	C	C	
Dutch	C	C	C	C	

PRESENTATIONS AND PUBLICATIONS

- 256 page Internet web site on wind energy: *www.windpower.org*, 1997-2003 (***)
- 68 page Internet web site on wind energy for kids: *Wind With Miller* 2001-2003 (***)
- *Vindformation* (editor & writer, 32 issues), quarterly wind energy magazine 1995-2003
- *WindPowerNotes*, Editor of professional magazine on wind energy, 1995-2003 (*)
- *Wind Energy Policy in Denmark, Status 2002*, 2002. (**)
- *Wind Energy Policy in Denmark, 25 Years of Success - What Now?*, 2002. (**)
- *Offshore Wind Energy: Full Speed Ahead*, (Published in *Wind Energy* journal), 2002. (**)
- *An Industry view of Green Certificates, The Devil is in the Detail*, conference paper 2001. (**)
- *Danish Electricity Reform, Offshore Wind Power and Green Certificates*, 2001. (**)
- *Renewables in the EU Single Market - An Economic and a Policy Analysis*, 2000. (**)
- *Creating a Local Wind Industry*, (for the Régie de l'énergie - Québec regulator), 1998 (**)
- *MedVind* (Booklet on wind energy), 1996
- *Wind Energy and Public Finance*, (economic analysis) 1996
- *Research Needs in the Danish Energy Sector* (co-author), 1996
- *Energy Balance of Wind Turbines*, (input-output analysis) 1995
- *Employment and Wind Energy*, (input-output analysis) 1995 (*)
- *Wind Energy – Research and Development* (for the Danish Energy Agency), 1995
- *The Strategic Programme for the Single Market*, 1994 (*)
- Six pamphlets on the European Union for EU referendum, 1993
- *Danish Industry and the Sutherland Report*, 1993 (*)
- *The Danish EC Presidency – Industry's proposals*, 1992 (*)
- *The EC Way after 1992*, (Industry's policy on EU), 1990 (*)
- *German Unification – (EC Legal Perspectives, co-author)* 1989 (*)
- *EC, EFTA, and Danish Industry* (EC Legal Perspectives, co-author), 1989 (*)
- *Training Course for Business Managers in the Single Market*, 1989
- Eight pamphlets on the Single Market, 1988-90
- *Industry, Taxation and the Single EC Market*, (Indirect taxation, 2 co-authors), 1988. (*)
- *Industrial Investment – a Survey*, 1987
- Referendum Pamphlets on the European Single Act, 1986
- *Industry and the EC*, (Book on association EC policy) 1985
- *Industry, its Exports and Internationalisation – a Survey*, 1984
- *Public Debt, Foreign Debt, and Industry*, (Textbook) 1983, 1985
- *Investing in Denmark*, (Direct investment policy and conditions) 1980, 1982 (**)
- *Econometric Studies in Health Economics* - (Master's thesis), 1977

- *CLIO, a Historical Econometric Model of Denmark* (5 co-authors), 1976

Plus approximately 400 articles in Danish and foreign newspapers, magazines, and books on wind energy, trade policy, barriers to trade, single market issues, investment, direct and indirect taxation, fiscal and monetary policy, economic and monetary union, economic policy and general EU policy issues.

*) = English and Danish language editions

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****) = English, Danish, German, Spanish and French editions