
Curriculum Vitae Asgeir Tomasgard

Born: October 16th 1970

Nationality: Norwegian Title: Dr. Ing. (PhD)

Profession: professor /senior researcher /centre director

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Education

01.12.94 -30.11.98: Dr.Ing. in operations research, Department of Industrial Economics and Technology Management, Norwegian University of Science and Technology. *"Aspects of service provision and distributed processing in a telecommunication network"*. Scholarship from Telenor Research . (Supervisor Stein.W. Wallace, co-supervisors, Leen Stougie, Shane Dye, Jan Audestad).

1989 - 1993: Siv.Ing (M.Sc.) in Industrial Economics, The Norwegian Institute of Technology (NTH),. Thesis written for Statoil: "Deterministic versus dynamic stochastic analysis of development projects: Influence on project evaluation and decisions" (in Norwegian). Thesis supervisor: Stein W. Wallace, 1993.

Employment record

2002- : NTNU, Department of Industrial Economics and Technology Management, professor in managerial economics and operations research.

- Centre director in Norwegian Centre for Energy Transition Strategies – FME NTRANS, a cooperation between NTNU, University of Oslo, NHH, SNF, IFE, SINTEF and HSF started in 2019 (www.ntrans.no) . This is a national research center for environmentally friendly energy (FME). Budget 32 mill €.
- Director NTNU Energy Transition, an initiative to coordinate transition research at NTNU across faculties and centers, in order to establish a new research program on transition and a think-tank for partners in industry and government. Budget 10 mill €.
- Centre director in Centre for Sustainable Energy Studies - FME CenSES from 2009-2019, a cooperation between NTNU, University of Oslo, NHH, SNF, IFE, SINTEF and HSF 2009 (www.censes.no) . This is a national research center for environmentally friendly energy (FME). Budget 32 mill €.
- Research Manager, Centre For Research Based Innovation: SFI Norman, (www.sfinorman.no), From 2007-2009 (Tomasgard was 1 of 5 NTNU professors applying for a centre together with SINTEF, RTIM and 15 industrial companies in December 2005). Tomasgard coordinated the center's research and was responsible for a joint PhD program at 3 NTNU departments. (budget 20 mill €).
- Group leader for the managerial economics and operations research group (2002-2006), 13 staff and research fellows).
- Program coordinator for a joint PhD program at NTNU/Massachusetts Institute of Technology on gas technology. From 2006-2010.
- Director, Lab for computational economics and optimization: Tomasgard has from 2007 acquired funding for and

managed the process of buying and establishing a High Performance Computing Cluster dedicated to use in economic optimization at NTNU.

1998- : SINTEF Industrial Management, Senior researcher (from 2002), part time (20%) from 2001.

- In SINTEF Tomasgard has been involved in projects within supply chain optimization, investment analysis and risk management (aluminium extrusion, food production, electricity (production, sales and risk management), natural gas (production, transportation, financial trades and sales). Client companies include: StatoilHydro, Gassco, Hydro, Iberdrola, Enel, Gilde Norsk Kjøtt, NSB, Volvo Aero, Alcatel.
- From 2003-2008 Tomasgard has coordinated all research in SINTEF Teknologi & Samfunn, SINTEF Energiforskning, SINTEF fiskeri og havbruk and SINTEF ICT towards Gilde and Nortura. This involves initiating research projects, leading research projects and coordinating the different efforts over time.
- Tomasgard developed and negotiated framework agreements for research cooperation between Gilde/SINTEF and NSB/SINTEF.

2000-2002 : NTNU, Department of Industrial Economics and Technology Management, adjunct associate professor in business economics (part-time position 20-50%).

PhD students (graduated)

- *Kjetil Midthun* (Optimizing the natural gas value chain. Cooperation with NHH and CORE, Lovain la Nouve), October, 2007.
- *Peter Schütz* (Supply chain optimization in production chains, cooperation with Georgia tech.) June 2009,
- *Jogeir Myklebust* (Optimal design and operation natural gas processing chains) May 2010
- *Marte Fodstad*, November 2013(*Optimization models and algorithms for the natural gas supply chain, cooperation with University of Maryland*)
- *Lars Hellemo*, (Managing Uncertainty in Design and Operation of Natural Gas Infrastructure, Cooperation with MIT). 2016.
- Christian Skar (cosupervisor), Energy system design under climate policy scenarios, 2016.
- Karen Byskov Lindberg (cosupervisor), Zero Emission buildings and their effects on the energy system. The energy system modelling is based on TIMES and optimization models developed in the project. 2017.
- Stig Ottesen, New roles and business models for introducing Smartgrid in distribution networks and households, 2017.
- Pernille Seljom, Modeling uncertainty in the TIMES energy system model, 2017.
- Per Ivar Helgesen, Spatial equilibrium models for regional economic analysis of energy policy, 2019 (Cosupervisor Olga Ivanova, TNO).
- Steffen Bakker, Planning of plug and abandon process for oil wells, planned dissertation 2020.
- Stian Backe: Zero Emission neighbourhoods, 2021
- Güray Kara: Cineldi, Smart grids and flexibility markets, 2022
- Vegard Skonseng Bjerketvedt, NCCS centre, 2023.

Current PhD students:

- Mohammadreza Ahang, Assets project, 2018-
- Hongyu Zhang, 2020 Thesis to be delivered in September 2023.
- Goran Duracovic (co-supervisor) 2020. Thesis to be delivered in September 2023
- Shamim Homaei, 2021-2025
- Siva Sankar, 2021-2024

Post docs

- Matthias Nowak, Infrastructure models for the energy sector, October 2006-September 2008.
- Youssaf Mohammad Shad, Supply chain optimization under uncertainty, February 2008-January 2010.
- Darijus Strasunkas, Valuation of integrated operations in the petroleum sector., August 2008-July 2011).
- Adela Pages, Infrastructure modeling in the energy sector, October 2008-July 2014.
- Michal Kaut, Scenario generation, June 2009-June 2011.
- Gerardo Perez, Algorithms for stochastic mixed integer programming with applications in energy, April 2010-March 2014
- Ruud Egging, Equilibrium models for energy systems, January 2011-June 2013.
- Alois Pichler, Optimal design and operation of power networks, November 2012-October 2015.
- Chiara Bordin, Optimization for charging of electric vehicles. Chargeflex project. November 2015-May 2018.
- Pedro Crespo Del Grenado
- Mario Blanzquez De Paz , post doc FME CINELDI, 2017-2019, Market design and transition pathways for power markets.
- Özgu Turgut, Post doc, FME NCCS, decarbonizing industry.

Student supervision at PhD level and master level (supervised about 125 master thesis students from 2000-2019 within subjects: investment analysis, logistics, supply chain optimization, risk management and liberalized energy markets (electricity and gas). Most projects have been in cooperation with industry.

- Teaching at under-graduate and graduate level, courses with 5-200 students.
- Responsible for developing 5 new courses : energy markets (PhD), modern production : economics and organization (PhD), production- and network economics (4th year), production economy and markets (3rd year), planning and economical analysis in supply chains(5th year).

International courses given

8.9-9.9. 2013: Universidade de Santiago de Compostela, Minicourse in stochastic programming. (6 hours)

13.11.12: Pontificia Universidade Católica do Rio de Janeiro, Minicourse in stochastic programming (7 hours)

4.5.09-15.5.09: University of Bergamo, 2 week course in stochastic programming. (30 hours)

Organizations and boards

2021 – *Member of the board of directors in Gassco*

2020 – *Member of the energy steering panel in European Academies Science Advise Council (EASAC)*

2019- Member of the Norwegian Academy of Technological Sciences (NTVA)

2019-2023 Tomasgard is a member of the board of Smart Innovation Norway

2018- Tomasgard is a member of the board of Norsk Klimastiftelse

2016-: Tomasgard is in the scientific advisory board of CESI- Centre for Energy System Integration, UK.

2015-: Faculty board, Faculty of Social sciences and technology management.

2015-2019: Member of the board, Optimeering Aqua, spin-off company from NTNU.

2014-: Tomasgard is a member of the advisory board the minister of climate and environment, “Klima- og miljøministerens klimaråd”

2013-: Tomasgard is member of the management board, editorial board leader and sub-program leader in the European Energy Research Alliance (EERA) Joint program Energy, environment and society E3s.

2013-: Tomasgard is in the management board of the European Working Group for Stochastic programming, under EURO - Association of European Operational Research Societies

2007- : Tomasgard was chair (2010-2013) for the Committee on Stochastic programming (COSP) (<http://stoprog.org/>), a technical committee of the [Mathematical Optimization Society](#). Tomasgard was secretary of COSP from 2007-2010. Member of COSP from 2016-2019 as chair of next ICSP conference .

Member of Mathematical Optimization Society, Member of the Institute for Operations Research and Management Sciences, INFORMS, Member of IAEE

Awards

2021 NTNU internationalization award

2009 The Best Paper Award of the 12th International Conference on Business Information Systems for the paper “In Quest of ICT Value through Integrated Operations: Assessment of Organisational and Technological Capabilities” presented at the ECONOM Workshop.

2008 Franz Edelman Laureate 2008: Finalist with SINTEF for INFORMS Franz Edelman Award for an outstanding example of management science and operations research practice. “*Optimizing the Offshore Pipeline system for Natural Gas in the North Sea*”, Client organizations: StatoilHydro and Gassco.

2006 Harold W. Kuhn award for the paper “ The Stochastic Single Resource Service-Provision Problem”, Naval research logistics. This award is presented annually to an outstanding paper published in the journal in the previous three years.

Research visits

02.05.17-15.05.17: Visiting professor , UFSC – Universidade Federal de Santa Catarina, Brazil.

26.6.16.-9.7.16: Visiting professor , IMPA- Instituto Nacional De Matemática Pura E Aplicada, Rio de Janeiro

01.10.15-13.10.2015: Visiting professor , IMPA- Instituto Nacional De Matemática Pura E Aplicada, Rio de Janeiro

08.04.15-23.04.15: Visiting professor , UFSC – Universidade Federal de Santa Catarina, Brazil.

04.10.14-18.10.2014: Visiting professor , IMPA- Instituto Nacional De Matemática Pura E Aplicada, Rio de Janeiro

22.05.14-06.06.14: Visiting professor , UFSC – Universidade Federal de Santa Catarina, Brazil. (under a 3 year grant “Pesquisador Visitante Especial” from 2014-2016)

22.04.12-05.05.12: Visiting professor at University of Bergamo on research project.

23.01.12-04.02.12: Visiting professor at Lancaster University (Under the LUMS distinguished visitor scheme)

4.5.09-15.5.09: Visiting professor at University of Bergamo, teaching a PhD course in stochastic programming.

1.8.06-30.6.07: Visiting associate professor at Massachusetts Institute of Technology, Lab for energy and the environment.

05.08.96 - 20.12.96: Visitor at the Tinbergen Institute Amsterdam

12.06.95 - 04.08.95: Visitor at Edinburgh Parallel Computing Centre (EPCC) under the Training and Research on Advanced Computing Systems (TRACS) program.

Referee duties:

Tomasgard has been referee for among others: European journal of operational research, Journal of operations research society, energy journal, energy economics, energy policy transportation science, computational management science, Annals of OR, Energy, Operations Research, Applied energy , Journal of cleaner production.

Workshop and conference organization

- Chair: Energy transition week 2023 and Energy transition 2023 conference
- Co-organizer, PhD winterschool on managing uncertainty in energy systems, Geilo, March 2023.
- Chair workshop series on the energy crisis with FMEs, NTVA and DNVA, 2022
- Co-organizer, PhD workshop on managing uncertainty in energy systems, Oppdal, February, 2022.
- Chair: Energy transition week 2022 and Energy transition 2022 conference
- Chair: Energy transition week 2021 and Energy transition 2021 conference Chair: Energy transition week 2020 and Energy transition 2020 conference
- Chair: Energy transition week 2019 and Energy transition 2019 conference
- Chair, International conference on Stochastic programming, Trondheim, August 2019.
- Chair: Energy transition week 2018 and Energy transition 2018 conference, February 26-March 2, 2018.
- Co-chair, PhD workshop on managing uncertainty in energy systems, Geilo, February 11-14, 2018.
- Chair: Energy Transitions workshop, Trondheim, November 7-8, 2017.
- Chair, Energy Transitions 2017, conference, NTNU, Trondheim, March, 2017.
- Co-Chair, International workshop on Implications of Paris project, Trondheim, March 2017.
- Co-Chair, PhD winterschool: Stochastic programming with applications, Passo Tonale, Italy , January 2017.
- Chair, Energy Transitions 2016, workshop, NTNU, Trondheim, October 2016.
- Chair, PhD workshop, Energy systems and markets, Oppdal, March 2016.
- PhD winterschool Energy systems and markets, Kvittfjell, Norway, March 22-28, 2015: chair.
- PhD winterschool: Stochastic programming with applications in energy, finance and insurance, Bad Hofgastein, Austria, March 23-28, 2014: co-chair
- PhD winterschool Stochastic programming with applications in energy and natural resources, Tignes, France, April 7-13, 2013: co-chair.
- 13th international conference on stochastic programming, Bergamo, 2013: scientific committee
- Stoprog 2012, Stochastic programming workshop, Nida, Neringa, Lithuania, 2012: Program committee chair
- 5th Nordic Optimizations symposium, Trondheim, June, 2012: Conference chair.

- International workshop on stochastic programming in energy systems, Oppdal, March, 2012: chair.
- PhD winterschool: Management of uncertainty in energy infrastructure and investments, Oppdal, March 2011: Chair
- APMOD Vienna/Bratislava (2008), program committee
- APMOD Madrid (2006), program committee
- APMOD Brunel, London, 2004: program committee

PhD committees and evaluation

Tomasgard has been in the PhD committee of

Bård Reitan(NTNU), Arnt Gunnar Lium(Molde University college), Arild Hoff(Molde University college), Josip Zoric (NTNU), Ane Marte Heggstad (NTNU), Gabriela Ribas (Pontificia Universidade Católica do Rio de Janeiro). Mario Guajardo (NHH), Nils Egil Søvde (Molde University college), Peter Gross (University of Vienna), Daniel Haugstvedt (NTNU), Iliana Ilieva(NMBU), Seyedmostafa Farashbashiastaneh (Aalborg University), Victoria Gribkovskaia (NHH). Uladzimir Rubasheuski (Høgskulen i Molde), Stefanos Delikaraoglou (DTU), Lina Reichenberg (Chalmers), Jozsef Racz (University of Southern Denmark), Henrik Bylling (Copenhagen University), Connor O'Malley (ETH), Hong Cai (NHH), Lina Reichenberg (Chalmers), Caroline Granfeldt (Chalmers),Martin Biel (KTH)

Publications

International peer reviewed journals

1. Crespo del Granado, Pedro Andres; Rajasekharan, Jayaprakash; Pandiyan, Surya Venkatesh; Tomasgard, Asgeir; Kara, Güray; Farahmand, Hossein; Jaehnert, Stefan. (2023) [Flexibility Characterization, Aggregation, and Market Design Trends with a High Share of Renewables: a Review. *Current Sustainable/Renewable Energy Reports*](#). volum 10 (1).
2. Durakovic, Goran; Crespo del Granado, Pedro Andres; Tomasgard, Asgeir. (2023) [Are green and blue hydrogen competitive or complementary? Insights from a decarbonized European power system analysis. *Energy*](#). volum 282.
3. Stadlerova, Sarka; Schütz, Peter; Tomasgard, Asgeir. (2023) [Multi-period facility location and capacity expansion with modular capacities and convex short-term costs. *Computers & Operations Research*](#).
4. Backe, Stian; Pinel, Dimitri Quentin Alexis; Askeland, Magnus; Lindberg, Karen Byskov; Korpås, Magnus; Tomasgard, Asgeir. (2022) [Exploring the link between the EU emissions trading system and net-zero emission neighbourhoods. *Energy and Buildings*](#). volum 281.
5. Backe, Stian; Zwickl-Bernhard, Sebastian; Schwabeneder, Daniel; Auer, Hans; Korpås, Magnus; Tomasgard, Asgeir. (2022) [Impact of energy communities on the European electricity and heating system decarbonization pathway: Comparing local and global flexibility responses. *Applied Energy*](#). vol. 323.
6. Borges, Pedro; Sagastizabal, Claudia; Solodov, Mikhail; Tomasgard, Asgeir. (2022) A distributionally ambiguous two-stage stochastic approach for investment in renewable generation. [European journal of applied mathematics](#).

7. Kara, Güray; Pisciella, Paolo; Tomasgard, Asgeir; Farahmand, Hossein; Crespo del Granado, Pedro. (2022) [Stochastic local flexibility market design, bidding, and dispatch for distribution grid operations. *Energy*. vol. 253.](#)
 8. Kara, Güray; Tomasgard, Asgeir; Farahmand, Hossein. (2022) [Characterizing flexibility in power markets and systems. *Utilities Policy*. vol. 75.](#)
 9. Backe, Stian; Ahang, Mohammadreza; Tomasgard, Asgeir. (2021) Stable stochastic capacity expansion with variable renewables: Comparing moment matching and stratified scenario generation sampling. *Applied Energy*. vol. 302.
 10. Backe, Stian; Skar, Christian; Crespo del Granado, Pedro; Turgut, Ozgu; Tomasgard, Asgeir. (2021) EMPIRE: An open-source model based on multi-horizon programming for energy transition analyses . *SoftwareX*. vol. 17.
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11. Bakker, Steffen J.; Kleiven, Andreas; Fleten, Stein-Erik; Tomasgard, Asgeir. (2021) Mature offshore oil field development: Solving a real options problem using stochastic dual dynamic integer programming. *Computers & Operations Research*. vol. 136.
 12. Bjerketvedt, Vegard Skonseng; Tomasgard, Asgeir; Roussanaly, Simon.(2021) Deploying a shipping infrastructure to enable carbon capture and storage from Norwegian industries. *Journal of Cleaner Production*. vol. 333.
 13. Bordin, Chiara; Tomasgard, Asgeir. (2021) Behavioural change in green transportation: Micro-economics perspectives and optimization strategies. *Energies*. vol. 14 (13).
 14. Espegren, Kari Aamodt; Damman, Sigrid; Pisciella, Paolo; Graabak, Ingeborg; Tomasgard, Asgeir. (2021) The role of hydrogen in the transition from a petroleum economy to a low-carbon society. *International Journal of Hydrogen Energy*. vol. 46 (45).
 15. Kara, Güray; Pisciella, Paolo; Tomasgard, Asgeir; Farahmand, Hossein.(2021) The impact of uncertainty and time structure on optimal flexibility scheduling in active distribution networks. *IEEE Access*. vol. 9.
 16. Turgut, Ozgu; Bjerketvedt, Vegard Skonseng; Tomasgard, Asgeir; Roussanaly, Simon. (2021) An integrated analysis of carbon capture and storage strategies for power and industry in Europe. *Journal of Cleaner Production*. vol. 329.
 17. Backe, Stian; Tomasgard, Asgeir; Korpås, Magnus. (2021) Heat and electric vehicle flexibility in the European power system: A case study of Norwegian energy communities. *International Journal of Electrical Power & Energy Systems*. vol. 125.
 18. Egging-Bratseth, Ruud; Baltensperger, Tobias; Tomasgard, Asgeir, [Solving oligopolistic equilibrium problems with convex optimization. *European Journal of Operational Research*.](#)
 19. [Kody Kazda; Asgeir Tomasgard; Vibeke Nørstebø; Xianq Li, Optimal Utilization of Natural Gas Pipeline Storage Capacity Under Future Supply Uncertainty *Computers & Chemical Engineering*, DOI: 10.1016/j.compchemeng.2020.106882 , 2020](#)
 20. [Backe, Stian; Kara, Güray; Tomasgard, Asgeir. , Comparing individual and coordinated demand response with dynamic and static power grid tariffs. *Energy*. vol. 201., 2020.](#)
 21. Bakker, Steffen J.; Vrålstad, Torbjørn; Tomasgard, Asgeir. (2019) [An optimization model for the planning of offshore plug and abandonment campaigns. *Journal of Petroleum Science and Engineering*. vol. 180.](#)

22. Bordin, Chiara; Tomasgard, Asgeir. [SMACS MODEL, a stochastic multihorizon approach for charging sites management, operations, design, and expansion under limited capacity conditions.](#) *Journal of Energy Storage*. vol. 26., 2019.
23. Finardi, EC; Lobato, RD; de Matos, VL; Sagastizabal, C; Tomasgard, Asgeir. [Stochastic hydro-thermal unit commitment via multi-level scenario trees and bundle regularization.](#) *Optimization and Engineering*, 2019
24. Marañón-Ledesma, Hector; Tomasgard, Asgeir. (2019) [Analyzing Demand Response in a Dynamic Capacity Expansion Model for the European Power Market.](#) *Energies*. vol. 12 (15).
25. Mishra, Sambheet; Bordin, Chiara; Tomasgard, Asgeir; Palu, Ivo. (2019) [A multi-agent system approach for optimal microgrid expansion planning under uncertainty.](#) *International Journal of Electrical Power & Energy Systems*. vol. 109.
26. Maggioni, Francesca; Allevi, Elisabetta; Tomasgard, Asgeir. (2019), [Bounds in multi-horizon stochastic programs.](#) *Annals of Operations Research*.
27. Seljom, Pernille; Tomasgard, Asgeir. (2019) [Sample average approximation and stability tests applied to energy system design.](#) *Energy Systems, Springer Verlag*.
28. Bjørndal, Endre; Bjørndal, Mette; Midthun, Kjetil Trovik; Tomasgard, Asgeir. (2018) [Stochastic electricity dispatch: A challenge for market design.](#) *Energy*. vol. 150.
29. Egging, Ruud; Tomasgard, Asgeir. (2018) [Norway's role in the European Energy Transition.](#) *Energy Strategy Reviews*. vol. 20.
30. Helgesen, Per Ivar; Lind, Arne; Ivanova, Olga; Tomasgard, Asgeir. (2018) [Using a hybrid hard-linked model to analyze reduced climate gas emissions from transport.](#) *Energy*. vol. 156.
31. Helgesen, Per Ivar; Tomasgard, Asgeir. (2018) [An equilibrium market power model for power markets and tradable green certificates, including Kirchhoff's Laws and Nash-Cournot competition.](#) *Energy Economics*. vol. 70.
32. Helgesen, Per Ivar; Tomasgard, Asgeir. (2018) [From linking to integration of energy system models and computational general equilibrium models - Effects on equilibria and convergence.](#) *Energy*. vol. 159.
33. Hellemo, Lars; Barton, Paul I.; Tomasgard, Asgeir. (2018) [Decision-dependent probabilities in stochastic programs with recourse.](#) *Computational Management Science*. vol. 15 (3-4).
34. Ottesen, Stig Ødegaard; Tomasgard, Asgeir; Fleten, Stein-Erik. (2018) [Multi market bidding strategies for demand side flexibility aggregators in electricity markets.](#) *Energy*. vol. 149.
35. Xiang Li, Asgeir Tomasgard, Paul I Barton, Natural gas production network infrastructure development under uncertainty, *Journal of Optimization and Engineering*, Vol. 18 no 1, pp. 35-62, 2017
36. Seljom, Pernille, and Tomasgard, Asgeir, The impact of policy actions and future energy prices on the cost-optimal development of the energy system in Norway and Sweden, *Energy Policy* 106, 85-102, 2017
37. Seljom, Pernille Merethe; Lindberg, Karen Byskov; Tomasgard, Asgeir; Doorman, Gerard L.; Sartori, Igor. (2017) [The impact of Zero Energy Buildings on the Scandinavian energy system.](#) *Energy*. vol. 118.
38. Bakker, Steffen J.; Aarlott, Mats Mathisen; Tomasgard, Asgeir; Midthun, Kjetil Trovik. (2017) [Planning of an Offshore Well Plugging Campaign: A Vehicle Routing Approach.](#) *Lecture Notes in Computer Science*. vol. 10572, 2017.

39. A Tomasgard, A Lisser, P Beraldi, V Moriggia, [Stochastic programming—a theoretical field or relevant for managers?](#), editorial, IMA Journal of Management Mathematics 28 (1), 3-4, 2017.
40. Skar, Christian; Egging, Ruud; Tomasgard, Asgeir. (2016) [The role of transmission and energy storage for integrating large shares of renewables in Europe](#). *IAEE Energy Forum*. vol. Q1.
41. Marte Fodstad, Ruud Egging, Kjetil Midthun, and Asgeir Tomasgard, *Stochastic Modeling of Natural Gas Infrastructure Development in Europe under Demand Uncertainty*, *Energy journal*, accepted, 2016.
42. Agra, Agostinho; Christiansen, Marielle; Ivarøy, Kristine S.; Solhaug, Ida Elise; Tomasgard, Asgeir., [Combined ship routing and inventory management in the salmon farming industry](#). *Annals of Operations Research*, 2016.
43. Ottesen, Stig Ødegaard; Tomasgard, Asgeir; Fleten, Stein-Erik., [Prosumer bidding and scheduling in electricity markets](#), *Energy*. vol. 94, 2016.
44. A. Pichler and A. Tomasgard, *Nonlinear Stochastic Programming With a Case Study in Continuous Switching*, *European Journal of Operational Research* vol 252(2), 2016.
45. Lars Hellemo & Asgeir Tomasgard, A Generalized Global Optimization Formulation of the Pooling Problem with Processing Facilities and Composite Quality Constraints, *Journal of the Spanish Society of Statistics and Operations Research (TOP)*, vol 24:209, 2016.
46. Fodstad, Marte; Midthun, Kjetil Trovik; Tomasgard, Asgeir, [Adding flexibility in a natural gas transportation network using interruptible transportation services](#). *European Journal of Operational Research*. vol. 243 (2), 2015.
47. Pernille Seljom and Asgeir Tomasgard, *Short-term uncertainty in long-term energy system models - A case study with focus on wind power in Denmark*, *Energy Economics*, vol 49, 2015.
48. Stig Ø. Ottesen & Asgeir Tomasgard, A stochastic model for scheduling energy flexibility in buildings, *Energy*, vol 88, 2015
49. Adela Pagès-Bernaus, Gerardo Pérez-Valdés, Asgeir Tomasgard, *A parallelised distributed implementation of a Branch and Fix Coordination algorithm*, *European Journal of Operational Research*, vol 244, 2015. doi:10.1016/j.ejor.2015.01.004
50. Kaut, Michal; Midthun, Kjetil Trovik; Werner, Adrian; Tomasgard, Asgeir; Hellemo, Lars; Fodstad, Marte., [Multi-horizon stochastic programming](#). *Computational Management Science*. volume 11 (1-2), 2014.
51. Arvesen, Ø., Medbø, V., Fleten, S.-E., Tomasgard, A., Westgaard, S., *Linepack storage valuation under price uncertainty*, *Energy*, [52, 155-164](#)., 2013.
52. Shim, Y., Fodstad, M., Gabriel, S.A., and Tomasgard, A., *A branch-and-bound method for discretely-constrained mathematical programs with equilibrium constraints*, *Annals of OR*, [volum 210 \(1\), 2013](#).
53. L. Hellemo, K. Midthun, A. Tomasgard and A. Werner, 'Natural Gas Infrastructure Design with an Operational Perspective', *Energy Procedia*, Vol. 26, pages 67-73, 2012.
54. Xiang Li, Asgeir Tomasgard, Paul I. Barton, Decomposition Strategy for the Stochastic Pooling Problem, *Journal of global optimization*, Volume 54, [Issue 4](#), pp 765-790, December 2012.
55. Xiang Li, Asgeir Tomasgard and Paul I. Barton, Nonconvex Generalized Benders Decomposition for Stochastic Separable Mixed-Integer Nonlinear Programs, *Journal of Optimization Theory and Applications*, [Volume 151, Number 3](#), 2011.
56. Xiang Li, Emre Armagan, Asgeir Tomasgard, Paul I. Barton, Stochastic Pooling Problem for Natural Gas Production Network Design and Operation Under Uncertainty, *AIChE Journal*, [Volume 57, Issue 8](#), pages 2120–2135, August 2011
57. P. Schütz and A. Tomasgard, *The Impact of Flexibility on Operational Supply Chain Planning*, *International Journal of Production Economics* 134, 2, 300-311, 2011.
58. Ø. Klok, P.F. Schreiner, A. Pagés-Bernaus, A. Tomasgard, *CO2 value chain for the Norwegian Continental Shelf*, *Energy Policy*, [Volume 38, Issue 11](#), November 2010.

59. J. Myklebust, A. Tomasgard, S. Westgaard, *Forecasting gas component prices with multivariate time series models*, OPEC energy review, June, 2010.
60. Kalashnikov, V.V., Perez-Valdes, G.A., Tomasgard, A., and Kalashnykova, N.I. Natural gas cash-out problem: Bilevel stochastic optimization approach. *European Journal of Operational Research*, 2010, 206, 18– 33.
61. P. . Osmundsen, T. Aven, and A. Tomasgard , *Incentives for security of petroleum supply*, *Reliability Engineering & System Safety*, Volume 95, Issue 2, Pages 143-148, February 2010.
62. A. Aspelund, T.Gundersen, M.P. Nowak, J. Myklebust, A. Tomasgard, *An optimization-simulation modell for a simple LNG process*, *Computers & Chemical Engineering*, Volume: 34, Issue: 10, 2010.
63. M. Bjørndal, K. Midthun, A.Tomasgard, *Optimal dispatch in natural gas networks*, *Energy Journal*, *Energy Journal* 30, 4, pages 175-200, 2009.
64. P. Schütz, S. Ahmed, A. Tomasgard, *Supply chain design under uncertainty using sample average approximation and dual decomposition*, *European Journal of Operations research*, volume 199, 2, pages 409-419, 2009.
65. Tomasgard, A., *Comments on: On a mixture of the fix-and-relax coordination and Lagrangean substitution schemes for multistage stochastic mixed integer programming*, TOP - An Official Journal of the Spanish Society of Statistics and Operations Research, Volume 17 Number 1,2009.
66. Frode Rømo, Asgeir Tomasgard, Lars Hellemo, Marte Fodstad, Bjørgulf Haukelidsæter Eidesen, and Birger Pedersen, *Optimizing the Norwegian Natural Gas Production and Transport*, *Interfaces*, January-February 2009; 39: 46 - 56.
67. Christoph Stiller, Ann Mari Svensson, Steffen Möller-Holst, Ulrich Bünger, Kari Aamodt Espegren, Øystein Bindesbøll Holm and Asgeir Tomasgard, *Options for CO2-lean hydrogen export from Norway to Germany*, *Energy*, Volume 33, Issue 11, November 2008, Pages 1623-1633, 2008.
68. P. Schütz, L. Stougie, A. Tomasgard, *Stochastic facility location with general long-run costs and convex short-run costs*, *Computers & Operations Research*, Volume 35 , Issue 9, 2008..
69. J.J van der Broek, L. Stougie, A. Tomasgard, and P. Schütz, *Location of slaughterhouses under economies of scale*, *European Journal of Operations research*, Volume 175, 2, Pages 740-750, 2006.
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Selected Published popular scientific papers and policy reports

104. Energikrisen i Europa og det norske kraftmarkedet, (redaktør), 2022.
105. Negative emissions and carbon dioxide removal (CDR) (co-author), NTNU Energy transition report, 2022.
106. White paper on the Clean Energy Transition, (part of lead authors group), EERA, 2021
107. The role of Natural gas in Europe towards 2050 (co-author), NTNU Energy transition report, 2021.
108. Havvind – en industriell mulighet (redaktør), NTNU Energy transition report, 2019.
109. Hydrogen i framtidens lavkarbonsamfunn, NTNU Energy transition report, 2019.
110. Norway's role as flexibility provider in Europe, CenSES position paper, 2018
111. Decarbonization of transport; A position paper prepared by FME MOZEES and FME CenSES, 2018
112. Tomasgard, A., Møller-Holst, S., Thomassen, M., Bull-Berg, H., Damman, S. og Bjørkvoll, T., "Nasjonale rammebetingelser og potensial for hydrogensatsingen i Norge", SINTEF-rapport A27350, 2016.

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114. Members of Working Group for market economics, *CCS for industry - Modelling the lowest-cost route to decarbonising Europe*, Zero Emission Platform, 2015.
115. Members of Working Group for market economics, *CCS and the electricity market - Modeling the lowest-cost route to decarbonizing European power*, Zero Emission Platform, 2014.
116. Members of Working Group for market economics, *CO₂ Capture and Storage (CCS) - Recommendations for transitional measures to drive deployment in Europe*. Zero Emission Platform, 2013.
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In addition Tomasgard coauthored a number of reports from NTNU, SINTEF and international organizations.

Selected plenarys and tutorials

1. Kraftmarkedet – har vi nok strøm og satser vi tilstrekkelig for framtiden?, Teknas årskonferanse, januar 2023
2. Teknologier i det grønne skiftet, YS konferansen, 26 oktober 2022.
3. Transisjon fra fossil til fornybar, Energidagene, Trondheim, 27 september, 2022.
4. Transition of the Integrated Energy System, NTNU Energy Transition Conference, March, 2019
5. Analyzing effects of short- and long-term uncertainty on capacity expansion in European electricity markets, keynote, Trans-Atlantic Infraday, Washington DC, November 2, 2018
6. Towards a near zero emission power system in Europe, 3rd International Conference of Skoltech Center for Energy Systems: "Science for Energy Systems Regulation", , Moscow, October 10-12, 2017.
7. Using stochastic programming to analyse demand response in European electricity markets, **Joint Czech-German-Slovak Conference on Mathematical Methods in Economy and Industry**, Jindřichův Hradec September 6, 2017.
8. Towards Zero Emission power systems, Implications of Paris Workshop, Trondheim, March, 2017.
9. Naturgassens rolle i Europas framtidige kraftsystem, VISTA-dagen, Det norske vitenskaps-akademi, November 2016.
10. Slik kan vi nå lågutsleppssamfunnet, Iniviert plenary foredrag, Kraft i vest konferansen, Sandane, September 2016.
11. Modelling energy and climate policy using multi-horizon stochastic programming, Plenary, Computational Management Science 2016, Salamanca, 2016.
12. The future of energy Production and distribution: The future grid, NorRen summer school, Sogndal, 2016.
13. Energi og klima – politikkenes store utfordring, CenSES årskonferanse 2016.
14. Hvilke krav vil klimapolitikken stille til fremtidens energipolitikk?, Foredrag ved Norsk Teknisk Vitenskapsakademi, Trondheim, November 2015.
15. Analysing climate and energy policy using stochastic optimization, NorRen summer school, Berlin, 2015.
16. *Modelling global climate and energy policy using stochastic programming. invited tutorial at VOCAL conference, Veszprem, Hungary, 2014*
17. Scenario analysis using the EMPIRE model and GCAM, NorRen summer school for PhD students, Holmen Fjordhotell, Norway, 2014.
18. Analysing natural gas transport capacity markets using stochastic programming and complementarity, Lecture at the 4th PhD Winter school on stochastic programming in Bad Hofgastein, March 2014.

19. Investment models and multi-horizon scenario trees, Lecture at the Tignes PhD winter school on stochastic programming with applications in energy and natural resources, April 7-12, Tignes, France, 2013.
20. A stochastic complementarity model for natural gas booking, International winterschool on infrastructure investments under uncertainty, Oppdal, Norway, March, 2011
- 21.** *A Decision Support Framework for Infrastructure Investments in the Energy Sector*, Key note speech at 4th Annual Trans-Atlantic INFRADAY Conference on Applied Infrastructure Modeling and Policy Analysis, Washington, DC (USA), Friday, 05 November, 2010.
22. Optimizing fresh food value chains with uncertain demand, plenary presentation at SPXII, Halifax ,Canada, 14-20 Aug, 2010.
23. Natural gas optimization, lecture at the PhD school stochastic programming: Theory and applications, Bergamo, 2009.
24. Stochastic optimization in natural gas markets, tutorial at SPXI , Vienna, 26. August 2007.