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Flexible Nordic Energy Systems

Peer-reviewed publications

From 2016 to early 2019

2019-05-01



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Nordic Energy Research

Title	Authors	Year	Journal	Link
Increased demand-side flexibility: market effects and impacts on variable renewable energy integration.	Tveten, Å.G., Bolkesjø, T.F. & Ilieva, I.	2016	International Journal of Sustainable Energy Planning and Management Vol. 11 2016 33-50	link
Impacts of electricity grid tariffs on flexible use of electricity to heat generation.	Kirkerud, J.G., Trømborg, E & Bolkesjø, T.F.	2016	Energy 115: 1679-1687	link
Flexible Electricity Markets For A Decarbonised Energy System	Skytte K., Bergaentzlé C., Khubute Sekamane J., Katz J	2017	Design the Electricity Market(s) of the Future: Proceedings from the Eurelectric-Florence School of Regulation Conference, 7 June 2017	link
Requirements for Strategic Reserves in a Liberalized Market with Wind Power	L. Söder	2017	Electricity Markets, Renewable Generation and Software Agents: Traditional and Emerging Market Designs, Lopes, F. and Coelho, H. (Eds.), Studies in Systems, Decision and Control, Springer, 2017. p. 165-185,	link
Market Prices in a Power Market with more than 50% Wind Power	Skytte K., Grohnheit, P. E.	2017	Electricity Markets, Renewable Generation and Software Agents: Traditional and Emerging Market Designs, Lopes, F. and Coelho, H. (Eds.), Studies in Systems, Decision and Control, Springer, 2017	link
Barriers for district heating as a source of flexibility for the electricity system	Skytte K., Olsen O. J., Soysal E. R., Sneum D.M,	2017	Journal of Energy Markets, 2017 Vol 10 Issue 2 pp 1-19	link

A Statistical Model for Hourly Large-Scale Wind and Photovoltaic Generation in New Locations	J. Ekström, M. Koivisto, I. Mellin, J. Millar, M. Lehtonen	2017	IEEE Transactions on Sustainable Energy	link
Analysis of Industrial Electricity Consumption Flexibility. Assessment of Saving Potentials in Latvia and Kazakhstan	Khabdullin A., Khabdullina Z. , Khabdullin A. , Khabdullina G. , Lauka D. , Blumberga D.	2017	Energy Procedia. Vol 113, May 2017, Pages 450-453.	link
Use of electric vehicles or hydrogen in the Danish transport sector in 2050? : Use of electric vehicles or hydrogen.	Skytte, Klaus; Pizarro Alonso, Amalia Rosa; Karlsson, Kenneth Bernard	2017	Wiley Interdisciplinary Reviews : Energy and Environment, Vol. 6, No. 1, e233, 2017.	link
Decarbonizing Sweden's energy and transportation system by 2050	Bramstoft R., Skytte K.	2017	International Journal of Sustainable Energy Planning and Management Vol 14, pp 3-20	link
Power-to-heat as a flexibility measure for integration of renewable energy.	Kirkerud, J.G., Bolkesjø, T. F. & Trømborg, E.	2017	Volume 128, 1 June 2017, Pages 776-784	link
Flexible use of electricity in heat-only district heating plants.	Trømborg, E., Havskjold, M., Bolkesjø, T.F., Kirkerud, J.G. & Tveten, Å.G.	2017	International Journal of Sustainable Energy Planning and Management Vol 12, pp 29-46	link
Demand response analysis methodology in district heating system.	Khabdullin, A., Khabdullina, Z., Khabdullina, G., Lauka, D., Blumberga, D.,	2017	Energy Procedia, Vol 128	link
A Statistical Model for Hourly Large-Scale Wind and Photovoltaic Generation in New Locations	J. Ekström, M. Koivisto, I. Mellin, J. Millar, M. Lehtonen,	2017	IEEE Transactions on Sustainable Energy, vol. 8, no. 4, pp. 1383-1393	link
Generation Adequacy Analysis of Multi-Area Power Systems With a High Share of Wind Power	Egill Tomasson; Lennart Söder	2017	IEEE Transactions on Power Systems, Year: 2017, Volume: PP, Issue: 99	link
Decarbonising the Finnish Transport Sector	Skytte, K & Bramstoft Pedersen, R	2018	The Nexus: Energy, Environment and Climate Change.	link

by 2050: Electricity or Biofuels?			Springer, pp. 3-22. Green Energy and Technology	
A review of demand side flexibility potential in Northern Europe	L. Söder, P. D Lund, H. Koduvere, T. F. Bolkesjø, G. H. Rossebø, E. Rosenlund-Soysal, J. Katz, D. Blumberga,	2018	Renewable and Sustainable Energy Reviews	link
Policy incentives for flexible district heating in the Baltic countries	Sneum, D.M., Sandberg, E., Koduvere, H., Olsen, O.J., Blumberga, D.	2018	Utilities Policy, 2018 Volume 51 pp. 61-72	link
Economic incentives for flexible district heating in the Nordic countries	Sneum, D.M., Sandberg, E	2018	International Journal for Sustainable Energy Planning and Management Volume 16, pp 27-44	link
Baltimore open source energy system model	Wiesea, F., Bramstoft, R., Koduvere, H., Pizarro A irkerud, J.G., Tveten, Å.G., Bolkesjø, T.F., Münster, M. and Ravn, H.,	2018	Energy Strategy Reviews, 2018 Volume 20, pages 26-34	link
A review of demand side flexibility potential in Northern Europe	Söder, L., Lund, P.D., Koduvere, H., Bolkesjø, T.F., Rossebø, G.H., Rosenlund-Soysal, E., Skytte, K., Katz, J., Blumberga, D.,	2018	Renewable and Sustainable Energy Reviews Volume 91, August 2018, Pages 654-664	link
On the simulation of aggregated solar PV forecast errors	E. Nuño, M. Koivisto, N. Cutululis, P. Sørensen	2018	IEEE Transactions on Sustainable Energy, vol. 9, no. 4, pp. 1889-1898, October 2018	link
A Statistical Modelling Methodology for Long-Term Wind Generation and Power Ramp Simulations in New Generation Locations	J. Ekström, M. Koivisto, I. Mellin, R. J. Millar, M. Lehtonen,	2018	Energies, vol 11, no. 9, pp 2442, 2018	link

Using time series simulation tool for assessing the effects of variable renewable energy generation on power and energy systems	M. Koivisto, K. Das, F. Guo, P. Sørensen, E. Nuño, N. Cutululis, P. Maule	2018	WIREs Energy and Environment, e329, 2018	link
Increasing the value of wind - From passive to active actors in multiple power markets'.	Skytte, K. & Bobo, L.	2018	Wiley Interdisciplinary Reviews: Energy and Environment. 2018; e328	link
Framework conditions for Nordic district heating - Similarities and differences, and why Norway sticks out.	Sandberg, E., Sneum, D.M., Trømborg, E	2018	Energy 149, 105–119.	link
Potential role of renewable gas in the transition of electricity and district heating systems.	Jensen, IG, Wiese, F, Bramstoft, R & Münster, M,	2018	Submitted to a special issue in Energy Strategy Review related to the EMP-E workshop, September 2018	
Modelling energy production flexibility: system dynamics approach.	Armands Gravelins, Gatis Bazbauers, Andra Blumberga, Dagnija Blumberg, Simon Bolwig, Antje Klitkou, Peter D. Lund	2018	Energy Procedia 147 (2018) 503-509.	link
Energy system impacts of grid tariff structures for flexible power-to-district heat	Sandberg, Eli; Kirkerud, Jon Gustav; Trømborg, Erik; Bolkesjø, Torjus Folsland	2018	Energy 2018 ; Volume 168. pp. 772-781	link
Value of demand flexibility on spot and reserve electricity markets in future power system with increased shares of variable renewable energy.	Roos, A. and Bolkesjø, TF.,	2018	Energy 2018 ;Volume 144. pp. 207-217.	link
Electricity grid tariffs as a tool for flexible energy systems: A Danish case study	Bergaentzlé, C, Jensen, IG, Skytte, K & Olsen, OJ.	2019	Energy Policy, vol 126, pp. 12-21	link



Review of modelling energy transitions pathways with application to energy system flexibility	Bolwig, S., Bazbauers, G., Klitkou, A., Lund, P.D., Blumberga, A., Gravelins, A., Blumberga, D.	2019	Renewable & Sustainable Energy Reviews 101 (2019) 440452	link
Coupling Variable Renewable Electricity Production to the Heating Sector through Curtailment and Power-to-heat Strategies for Accelerated Emission Reduction	Arabzadeh, V., Pilpola, S. and Lund, P.D.	2019	Future Cities and Environment, 5(1), p.1.	link



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