Henrik Lund

List of Publications by Year
in descending order

153 papers	22,207 citations	15466 65 h-index	8599 146 g-index
191 all docs	191 docs citations	191 times ranked	12004 citing authors

#	Article	IF	Citations
1	Energy efficient decarbonisation strategy for the Danish transport sector by 2045. Smart Energy, 2022, 5, 100063.	2.6	35
2	Recent advances in methods, policies and technologies at sustainable energy systems development. Energy, 2022, 245, 123276.	4.5	46
3	Fourth-Generation District Heating and Motivation Tariffs. , 2022, 1, .		10
4	The four generations of district cooling - A categorization of the development in district cooling from origin to future prospect. Energy, 2022, 253, 124098.	4.5	35
5	A multi-objective optimization approach in defining the decarbonization strategy of a refinery. Smart Energy, 2022, 6, 100076.	2.6	12
6	Heat Roadmap Europe: strategic heating transition typology as a basis for policy recommendations. Energy Efficiency, 2022, 15, .	1.3	9
7	The role of sustainable bioenergy in a fully decarbonised society. Renewable Energy, 2022, 196, 195-203.	4.3	33
8	Smart energy Denmark. A consistent and detailed strategy for a fully decarbonized society. Renewable and Sustainable Energy Reviews, 2022, 168, 112777.	8.2	33
9	Perspectives on energy efficiency and smart energy systems from the 5th SESAAU2019 conference. Energy, 2021, 216, 119260.	4.5	9
10	EnergyPLAN â€“ Advanced analysis of smart energy systems. Smart Energy, 2021, 1, 100007.	2.6	188
11	Trends in tools and approaches for modelling the energy transition. Applied Energy, 2021, 290, 116731.	5.1	173
12	Large-scale optimal integration of wind and solar photovoltaic power in water-energy systems on islands. Energy Conversion and Management, 2021, 235, 113982.	4.4	37
13	Optimal coordination of flexible resources in the gas-heat-electricity integrated energy system. Energy, 2021, 223, 119729.	4.5	30
14	Quantifying techno-economic indicators' impact on isolated renewable energy systems. IScience, 2021, 24, 102730.	1.9	5
15	Perspectives on fourth and fifth generation district heating. Energy, 2021, 227, 120520.	4.5	149
16	Energy transition in petroleum rich nations: Case study of Iran. Smart Energy, 2021, 3, 100026.	2.6	25
17	District heating in 100% renewable energy systems: Combining industrial excess heat and heat pumps. Energy Conversion and Management, 2021, 244, 114527.	4.4	36
18	Transition pathways towards a deep decarbonization energy systemâ€”A case study in Sichuan, China. Applied Energy, 2021, 302, 117507.	5.1	37

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19	The electrification of transportation in energy transition. Energy, 2021, 236, 121564.	4.5	53
20	Bi-Level Programming for Integrating Flexible Demand in Combined Smart Energy System. , 2021, , .		0
21	Quantification of realistic performance expectations from trigeneration CAES-ORC energy storage system in real operating conditions. Energy Conversion and Management, 2021, 249, 114828.	4.4	23
22	Editorial: Sustainable development of energy, Water and Environment Systems. Energy, 2020, 190, 116432.	4.5	17
23	Smart Energy Markets - Future electricity, gas and heating markets. Renewable and Sustainable Energy Reviews, 2020, 119, 109655.	8.2	69
24	Increasing the integration of variable renewable energy in coal-based energy system using power to heat technologies: The case of Kosovo. Energy, 2020, 212, 118762.	4.5	34
25	Heat Roadmap Chile: A national district heating plan for air pollution decontamination and decarbonisation. Journal of Cleaner Production, 2020, 272, 122744.	4.6	14
26	District Heating Tariffs, Economic Optimisation and Local Strategies during Radical Technological Change. Energies, 2020, 13, 1172.	1.6	13
27	The first feasible step towards clean heating transition in urban agglomeration: A case study of Beijing-Tianjin-Hebei region. Energy Conversion and Management, 2020, 223, 113282.	4.4	32
28	The benefits of 4th generation district heating in a 100% renewable energy system. Energy, 2020, 213, 119030.	4.5	74
29	Smart energy cities in a 100% renewable energy context. Renewable and Sustainable Energy Reviews, 2020, 129, 109922.	8.2	173
30	A market equilibrium model for electricity, gas and district heating operations. Energy, 2020, 206, 117934.	4.5	11
31	The design of 100 % renewable smart urb an energy systems: The case of Bozen-Bolzano. Energy, 2020, 207, 118198.	4.5	43
32	Economic feasibility of a wind-battery system in the electricity market with the fluctuation penalty. Journal of Cleaner Production, 2020, 271, 122513.	4.6	20
33	The MATLAB Toolbox for EnergyPLAN: A tool to extend energy planning studies. Science of Computer Programming, 2020, 191, 102405.	1.5	27
34	Designing a standalone wind-diesel-CAES hybrid energy system by using a scenario-based bi-level programming method. Energy Conversion and Management, 2020, 211, 112759.	4.4	37
35	From Carbon Calculators to Energy System Analysis in Cities. Energies, 2019, 12, 2307.	1.6	20
36	Implementation of repowering optimization for an existing photovoltaicâ€pumped hydro storage hybrid system: A case study in Sichuan, China. International Journal of Energy Research, 2019, 43, 8463.	2.2	9

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37	Sustainable and cost-efficient energy supply and utilisation through innovative concepts and technologies at regional, urban and single-user scales. Energy, 2019, 182, 254-268.	4.5	40
38	Towards future infrastructures for sustainable multi-energy systems: A review. Energy, 2019, 184, 2-21.	4.5	162
39	Status and perspectives on 100% renewable energy systems. Energy, 2019, 175, 471-480.	4.5	489
40	Implementing cleaner heating solutions towards a future low-carbon scenario in Ireland. Journal of Cleaner Production, 2019, 214, 377-388.	4.6	31
41	Integrated Flexible Resources and Energy Markets in the Danish Multi-energy System. , 2019, , .		2
42	Quantifying the influence of wind power and photovoltaic on future electricity market prices. Energy Conversion and Management, 2019, 180, 312-324.	4.4	52
43	Renewable heating strategies and their consequences for storage and grid infrastructures comparing a smart grid to a smart energy systems approach. Energy, 2018, 151, 94-102.	4.5	148
44	Beyond sensitivity analysis: A methodology to handle fuel and electricity prices when designing energy scenarios. Energy Research and Social Science, 2018, 39, 108-116.	3.0	32
45	Barriers and Recommendations to Innovative Ownership Models for Wind Power. Energies, 2018, 11, 2602.	1.6	13
46	Sustainable Towns. , 2018, , 129-146.		1
47	Future district heating systems and technologies: On the role of smart energy systems and 4th generation district heating. Energy, 2018, 165, 614-619.	4.5	147
48	The status of 4th generation district heating: Research and results. Energy, 2018, 164, 147-159.	4.5	395
49	Response to â€˜Burden of proof: A comprehensive review of the feasibility of 100% renewable-electricity systemsâ€™. Renewable and Sustainable Energy Reviews, 2018, 92, 834-847.	8.2	354
50	Smart renewable energy penetration strategies on islands: The case of Gran Canaria. Energy, 2018, 162, 421-443.	4.5	87
51	Smart Energy Systems. Issues in Environmental Science and Technology, 2018, , 228-260.	0.4	3
52	Cross-border versus cross-sector interconnectivity in renewable energy systems. Energy, 2017, 124, 492-501.	4.5	64
53	Smart energy and smart energy systems. Energy, 2017, 137, 556-565.	4.5	679
54	Simulation versus Optimisation: Theoretical Positions in Energy System Modelling. Energies, 2017, 10, 840.	1.6	168

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55	Heat Roadmap Europe: Large-Scale Electric Heat Pumps in District Heating Systems. Energies, 2017, 10, 578.	1.6	163
56	Comparison of district heating expansion potential based on consumer-economy or socio-economy. Energy, 2016, 115, 1771-1778.	4.5	27
57	Smart Energy Europe: The technical and economic impact of one potential 100% renewable energy scenario for the European Union. Renewable and Sustainable Energy Reviews, 2016, 60, 1634-1653.	8.2	549
58	Towards low carbon energy systems: Engineering and economic perspectives. Energy, 2016, 115, 1345-1346.	4.5	1
59	Sustainable Development of Energy, Water and Environment Systems. Energy, 2016, 115, 1503.	4.5	7
60	Roles of local and national energy systems in the integration of renewable energy. Applied Energy, 2016, 183, 419-429.	5.1	69
61	Addressing the main challenges of energy security in the twenty-first century â€“ Contributions of the conferences on Sustainable Development of Energy, Water and Environment Systems. Energy, 2016, 115, 1504-1512.	4.5	47
62	Heat Roadmap Europe: Identifying the balance between saving heat and supplying heat. Energy, 2016, 115, 1663-1671.	4.5	66
63	Smart Energy Systems for coherent 100% renewable energy and transport solutions. Applied Energy, 2015, 145, 139-154.	5.1	873
64	Energy saving synergies in national energy systems. Energy Conversion and Management, 2015, 103, 259-265.	4.4	40
65	Heat roadmap China: New heat strategy to reduce energy consumption towards 2030. Energy, 2015, 81, 274-285.	4.5	130
66	Future power market and sustainable energy solutions â€“ The treatment of uncertainties in the daily operation of combined heat and power plants. Applied Energy, 2015, 144, 129-138.	5.1	56
67	Integration of renewables and reverse osmosis desalination â€“ Case study for the Jordanian energy system with a high share of wind and photovoltaics. Energy, 2015, 92, 270-278.	4.5	72
68	Performance Analysis of a Hybrid District Heating System: a Case Study of a Small Town in Croatia. Journal of Sustainable Development of Energy, Water and Environment Systems, 2015, 3, 282-302.	0.9	27
69	Empirical Examples. , 2014, , 239-325.		0
70	4th Generation District Heating (4GDH). Energy, 2014, 68, 1-11.	4.5	1,548
71	Heat Roadmap Europe: Combining district heating with heat savings to decarbonise the EU energy system. Energy Policy, 2014, 65, 475-489.	4.2	607
72	Tool. , 2014, , 53-78.		17

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73	An energy system model for Hong Kong in 2020. Energy, 2014, 68, 301-310.	4.5	51
74	System and market integration of wind power in Denmark. Energy Strategy Reviews, 2013, 1, 143-156.	3.3	49
75	Modelling the transport system in China and evaluating the current strategies towards the sustainable transport development. Energy Policy, 2013, 58, 347-357.	4.2	55
76	Electric vehicles and large-scale integration of wind power â€“ The case of Inner Mongolia in China. Applied Energy, 2013, 104, 445-456.	5.1	78
77	Energy strategy research â€“ Charter and perspectives of an emerging discipline. Energy Strategy Reviews, 2013, 1, 135-137.	3.3	5
78	2050 pathway to an active renewable energy scenario for Jiangsu province. Energy Policy, 2013, 53, 267-278.	4.2	41
79	The economic crisis and sustainable development: The design of job creation strategies by use of concrete institutional economics. Energy, 2012, 43, 192-200.	4.5	65
80	Energy systems engineering. Energy, 2012, 44, 2-5.	4.5	12
81	The role of Carbon Capture and Storage in a future sustainable energy system. Energy, 2012, 44, 469-476.	4.5	106
82	Limiting biomass consumption for heating in 100% renewable energy systems. Energy, 2012, 48, 160-168.	4.5	114
83	Wind power integration using individual heat pumps â€“ Analysis of different heat storage options. Energy, 2012, 47, 284-293.	4.5	197
84	The importance of flexible power plant operation for Jiangsu's wind integration. Energy, 2012, 41, 499-507.	4.5	55
85	From electricity smart grids to smart energy systems â€“ A market operation based approach and understanding. Energy, 2012, 42, 96-102.	4.5	520
86	The technical and economic implications of integrating fluctuating renewable energy using energy storage. Renewable Energy, 2012, 43, 47-60.	4.3	182
87	Large-scale integration of wind power into the existing Chinese energy system. Energy, 2011, 36, 4753-4760.	4.5	156
88	A Romanian energy system model and a nuclear reduction strategy. Energy, 2011, 36, 6413-6419.	4.5	45
89	Sustainable development of energy, water and environment systems. Energy, 2011, 36, 1839-1841.	4.5	20
90	100% Renewable energy systems, climate mitigation and economic growth. Applied Energy, 2011, 88, 488-501.	5.1	583

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91	The first step towards a 100% renewable energy-system for Ireland. Applied Energy, 2011, 88, 502-507.	5.1	377
92	Potential of renewable energy systems in China. Applied Energy, 2011, 88, 518-525.	5.1	259
93	Zero energy buildings and mismatch compensation factors. Energy and Buildings, 2011, 43, 1646-1654.	3.1	131
94	Practical operation strategies for pumped hydroelectric energy storage (PHES) utilising electricity price arbitrage. Energy Policy, 2011, 39, 4189-4196.	4.2	210
95	A renewable energy system in Frederikshavn using low-temperature geothermal energy for district heating. Applied Energy, 2011, 88, 479-487.	5.1	241
96	A renewable energy scenario for Aalborg Municipality based on low-temperature geothermal heat, wind power and biomass. Energy, 2010, 35, 4892-4901.	4.5	201
97	A review of computer tools for analysing the integration of renewable energy into various energy systems. Applied Energy, 2010, 87, 1059-1082.	5.1	1,244
98	Energy system analysis of marginal electricity supply in consequential LCA. International Journal of Life Cycle Assessment, 2010, 15, 260-271.	2.2	142
99	Conversion of individual natural gas to district heating: Geographical studies of supply costs and consequences for the Danish energy system. Applied Energy, 2010, 87, 1846-1857.	5.1	110
100	Comparing Waste-to-Energy technologies by applying energy system analysis. Waste Management, 2010, 30, 1251-1263.	3.7	81
101	Energy efficiency analysis and impact evaluation of the application of thermoelectric power cycle to todayâ€™s CHP systems. Applied Energy, 2010, 87, 1231-1238.	5.1	99
102	The role of district heating in future renewable energy systems. Energy, 2010, 35, 1381-1390.	4.5	644
103	The implementation of renewable energy systems. Lessons learned from the Danish case. Energy, 2010, 35, 4003-4009.	4.5	85
104	Modelling the existing Irish energy-system to identify future energy costs and the maximum wind penetration feasible. Energy, 2010, 35, 2164-2173.	4.5	90
105	Sustainable Towns: The Case of Frederikshavn â€“ 100% Renewable Energy. , 2010, , 155-168.		10
106	Tool. , 2010, , 51-73.		3
107	Climate Change Mitigation from a Bottom-up Community Approach. , 2010, , 247-265.		3
108	The role of compressed air energy storage (CAES) in future sustainable energy systems. Energy Conversion and Management, 2009, 50, 1172-1179.	4.4	438

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109	Comparative analyses of seven technologies to facilitate the integration of fluctuating renewable energy sources. IET Renewable Power Generation, 2009, 3, 190.	1.7	231
110	Optimal operation strategies of compressed air energy storage (CAES) on electricity spot markets with fluctuating prices. Applied Thermal Engineering, 2009, 29, 799-806.	3.0	223
111	Energy system analysis of 100% renewable energy systemsâ€"The case of Denmark in years 2030 and 2050. Energy, 2009, 34, 524-531.	4.5	865
112	Use of waste for heat, electricity and transportâ€"Challenges when performing energy system analysis. Energy, 2009, 34, 636-644.	4.5	67
113	Integrated transport and renewable energy systems. Utilities Policy, 2008, 16, 107-116.	2.1	102
114	Integrated technologies for sustainable stationary and mobile energy infrastructures. Utilities Policy, 2008, 16, 130-140.	2.1	13
115	Sustainable energy and transportation systems introduction and overview. Utilities Policy, 2008, 16, 59-62.	2.1	23
116	The effectiveness of storage and relocation options in renewable energy systems. Renewable Energy, 2008, 33, 1499-1507.	4.3	136
117	System behaviour of compressed-air energy-storage in Denmark with a high penetration of renewable energy sources. Applied Energy, 2008, 85, 182-189.	5.1	98
118	Integration of renewable energy into the transport and electricity sectors through V2G. Energy Policy, 2008, 36, 3578-3587.	4.2	844
119	Renewable energy strategies for sustainable development. Energy, 2007, 32, 912-919.	4.5	1,107
120	New CHP partnerships offering balancing of fluctuating renewable electricity productions. Journal of Cleaner Production, 2007, 15, 288-293.	4.6	118
121	Sustainable development in practice. Journal of Cleaner Production, 2007, 15, 253-258.	4.6	45
122	Two energy system analysis models: A comparison of methodologies and results. Energy, 2007, 32, 948-954.	4.5	121
123	Large-scale heat pumps in sustainable energy systems: System and project perspectives. Thermal Science, 2007, 11, 143-152.	0.5	53
124	Integrated transportation and energy sector CO2 emission control strategies. Transport Policy, 2006, 13, 426-433.	3.4	63
125	Large-scale integration of optimal combinations of PV, wind and wave power into the electricity supply. Renewable Energy, 2006, 31, 503-515.	4.3	336
126	The Kyoto mechanisms and technological innovation. Energy, 2006, 31, 2325-2332.	4.5	46

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127	Integrated energy systems and local energy markets. Energy Policy, 2006, 34, 1152-1160.	4.2	188
128	Large-scale integration of wind power into different energy systems. Energy, 2005, 30, 2402-2412.	4.5	428
129	Optimal designs of small CHP plants in a market with fluctuating electricity prices. Energy Conversion and Management, 2005, 46, 893-904.	4.4	163
130	Implementation strategy for small CHP-plants in a competitive market: the case of Lithuania. Applied Energy, 2005, 82, 214-227.	5.1	64
131	Electric grid stability and the design of sustainable energy systems. International Journal of Sustainable Energy, 2005, 24, 45-54.	1.3	58
132	Fuel-efficiency of hydrogen and heat storage technologies for integration of fluctuating renewable energy sources. , 2005, , .		2
133	Feasibility of a 1400 MW coal-fired power-plant in Thailand. Applied Energy, 2003, 76, 55-64.	5.1	36
134	Management of surplus electricity-production from a fluctuating renewable-energy source. Applied Energy, 2003, 76, 65-74.	5.1	123
135	Modelling of energy systems with a high percentage of CHP and wind power. Renewable Energy, 2003, 28, 2179-2193.	4.3	157
136	Excess electricity diagrams and the integration of renewable energy. International Journal of Sustainable Energy, 2003, 23, 149-156.	1.3	48
137	Flexible energy systems: integration of electricity production from CHP and fluctuating renewable energy. International Journal of Energy Technology and Policy, 2003, 1, 250.	0.1	22
138	Management of fluctuations in wind power and CHP comparing two possible Danish strategies. Energy, 2002, 27, 471-483.	4.5	93
139	Civic markets: the case of the California energy crisis. International Journal of Global Energy Issues, 2001, 16, 328.	0.2	38
140	Choice awareness: the development of technological and institutional choice in the public debate of Danish energy planning. Journal of Environmental Policy and Planning, 2000, 2, 249-259.	1.5	17
141	Estonian energy system Proposals for the implementation of a cogeneration strategy. Energy Policy, 2000, 28, 729-736.	4.2	41
142	Electric grid and heat planning scenarios with centralised and distributed sources of conventional, CHP and wind generation. Energy, 2000, 25, 299-312.	4.5	79
143	Choice awareness: the development of technological and institutional choice in the public debate of Danish energy planning. Journal of Environmental Policy and Planning, 2000, 2, 249-259.	1.5	50
144	District heating and market economy in Latvia. Energy, 1999, 24, 549-559.	4.5	47

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145	Implementation of energy-conservation policies: the case of electric heating conversion in Denmark. Applied Energy, 1999, 64, 117-127.	5.1	47
146	Biogas plants in Denmark: technological and economic developments. Applied Energy, 1999, 64, 195-206.	5.1	63
147	A Green Energy Plan for Denmark. Environmental and Resource Economics, 1999, 14, 431-440.	1.5	35
148	Conflicting views of sustainability: The case of wind power and nature conservation in Denmark. Environmental Policy and Governance, 1998, 8, 1-6.	0.4	37
149	Energy, employment and the environment: towards an integrated approach. Environmental Policy and Governance, 1998, 8, 33-40.	0.4	6
150	Rebuilding without restructuring the energy system in east Germany. Energy Policy, 1998, 26, 535-546.	4.2	31
151	Environmental accounts for households: A method for improving public awareness and participation. Local Environment, 1998, 3, 43-54.	1.1	6
152	Does environmental impact assessment really support technological change? Analyzing alternatives to coal-fired power stations in Denmark. Environmental Impact Assessment Review, 1997, 17, 357-370.	4.4	20
153	Sustainable Development of Energy, Water and Environmental Systems and Smart Energy Systems. , 0, 34, 1-4.		2