

Actual impact of heat pumps to energy performance of apartment buildings in Estonia

Reino, Arbo; Hamburg, Arvi 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982370>

Analyzing energy flexibility by demand response in a Finnish district heated apartment building

Ju, Yuchen; Jokisalo, Juha; Kosonen, Risto; Kauppi, Ville; Janßen, Philipp E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 09006, 7 p. : ill <https://doi.org/10.1051/e3sconf/202124609006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)

Benefits through space heating and thermal storage with demand response control for a district-heated office building

Ju, Yuchen; Hiltunen, Pauli; Jokisalo, Juha; Kosonen, Risto; Syri, Sanna Buildings 2023 / art. 2670, 23 p. : ill <https://doi.org/10.3390/buildings13102670> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Buildings' energy efficiency measures effect on CO2 emissions in combined heating, cooling and electricity production

Pylsy, Petri; Lylykangas, Kimmo Sakari; Kurnitski, Jarek Renewable and sustainable energy reviews 2020 / art. 110299, 18 p. : ill <https://doi.org/10.1016/j.rser.2020.110299> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative assessment of heat recovery from treated wastewater in the district heating systems of the three capitals of the Baltic countries

Ziemele, Jelena; Volkova, Anna; Latšov, Eduard; Murauskaite, Lina; Džiuvė, Vytautas Energy 2023 / art. 128132 <https://doi.org/10.1016/j.energy.2023.128132> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of COP estimation methods for large-scale heat pumps used in energy planning

Pieper, Henrik; Ommen, Torben; Kjær Jensen, Jonas Energy 2020 / art. 117994, 13 p. : ill <https://doi.org/10.1016/j.energy.2020.117994>

Comparison of district heating supply options for different CHP configurations

Rušelj, Pavel; Dedov, Andrei; Hlebnikov, Aleksandr; Lepiksaar, Kertu; Volkova, Anna Energies 2023 / art. 603, 14 p. : ill <https://doi.org/10.3390/en16020603> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Converting Tallinn's historic centre's (Old Town) heating system to a district heating system

Volkova, Anna; Krupenski, Igor; Kovtunova, Natalja; Hlebnikov, Aleksandr; Mašatin, Vladislav; Ledvanov, Aleksandr Energy 2023 / art. 127429 <https://doi.org/10.1016/j.energy.2023.127429> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cost-effective heating control approaches by demand response and peak demand limiting in an educational office building with district heating

Yuan, Xiaolei; Vand, Behrang; Martin, Kristian; Jokisalo, Juha; Liang, Yumin; **Kosonen, Risto;** Pan, Yiqun Buildings 2023 / art. 332, 18 p. : ill <https://doi.org/10.3390/buildings13020332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Decarbonisation options of district heating peak loads

Volkova, Anna; Moser, Simon; Jauschnik, Gabriela; **Hlebnikov, Aleksandr; Ali, Hesham Abed Al-Same Jamil;** Cecchin, Chiara 10th International Conference on Smart Energy Systems : Book of Abstracts 2024 / p. 203-204 <https://vbn.aau.dk/da/publications/book-of-abstracts-10th-international-conference-on-smart-energy-s-2>

Decarbonization strategies of Helsinki metropolitan area district heat companies

Su, Yijie; Hiltunen, Pauli; Syri, Sanna; Khawwaja, Dilip Renewable and Sustainable Energy Reviews 2022 / Art. 112274 <https://doi.org/10.1016/j.rser.2022.112274> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Demand response potential of district heating in a swimming hall in Finland

Yuan, Xiaolei; Lindroos, Leo; Jokisalo, Juha; Kosonen, Risto; Pan, Yiqun; Jin, Hui Energy and buildings 2021 / art. 111149, 12 p. : ill <https://doi.org/10.1016/j.enbuild.2021.111149> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design and development of a conceptual solar energy laboratory for district heating applications

Chung, Jaewook; Sukumaran, Sreenath; Hlebnikov, Aleksandr; Volkova, Anna Solar 2023 / p. 504-521 <https://doi.org/10.3390/solar3030028>

Design of high-performing hybrid ground source heat pump (GSHP) system in an educational building

Xue, Tianchen; Jokisalo, Juha; Kosonen, Risto; Ju, Yuchen Buildings 2023 / art. 1825, 26 p. : ill <https://doi.org/10.3390/buildings13071825> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

District cooling network planning. A case study of Tallinn

Volkova, Anna; Hlebnikov, Aleksandr; Ledvanov, Aleksandr; Kirs, Tanel; **Raudsepp, Urmas; Krupenski, Igor; Latšov, Eduard** International Journal of Sustainable Energy Planning and Management 2022 / p. 63-78 : ill <https://doi.org/10.54337/ijsep.7011> [Journal metrics at Scopus](#) [Article at Scopus](#)

Economic dispatch of CHP units through District Heating Network's demand-side management

Rušeljuk, Pavel; Lepiksaar, Kertu; Siirde, Andres; Volkova, Anna Energies 2021 / art. 4553, 20 p. : ill

<https://doi.org/10.3390/en14154553> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Efficient use of heat from CHP distributed by district heating system in district cooling networks

Pieper, Henrik; Kirs, Tanel; Krupenski, Igor; Ledvanov, Aleksandr; Lepiksaar, Kertu; Volkova, Anna Energy reports 2021 / p.

47-54 <https://doi.org/10.1016/j.egy.2021.09.041> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrolysis waste heat utilization towards district heating – a case study for Norway

Kauko, Hanne; Tommasini, Davide; Marx, Nicolas; Wimmer, Yannick; Reuter, Stefan; Puschnigg, Stefan; Moser, Simon; Volkova, Anna; Ali, Hesham Abed Al-Same Jamil 10th International Conference on Smart Energy Systems : Book of Abstracts 2024 / p.

251-252 <https://vbn.aau.dk/da/publications/book-of-abstracts-10th-international-conference-on-smart-energy-s-2>

Emissions and power demand in optimal energy retrofit scenarios of the Finnish building stock by 2050

Hirvonen, Janne; Heljo, Juhani; Jokisalo, Juha; Kurvinen, Antti; Saari, Arto; Niemelä, Tuomo; Sankelo, Paula; Kosonen, Risto

Sustainable cities and society 2021 / art. 102896, 22 p. : ill <https://doi.org/10.1016/j.scs.2021.102896> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy, cost and emission saving potential of demand response and peak power limiting in the German district heating system

Suhonen, Janne; Lindholm, Joakim; Verbeck, Moritz; Ju, Yuchen; Jokisalo, Juha; Kosonen, Risto; Janßen, Philipp; Schäfers, Hans International journal of sustainable energy 2023 / p. 1092-1127 : ill

<https://doi.org/10.1080/14786451.2023.2251601> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An evaluation and innovative coupling of seawater heat pumps in district heating networks

Ali, Hesham; Hlebnikov, Aleksandr; Pakere, Ieva; Volkova, Anna Energy 2024 / art. 133461

<https://doi.org/10.1016/j.energy.2024.133461> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation factor for district heating network heat loss with respect to network geometry

Mašatin, Vladislav; Latošov, Eduard; Volkova, Anna Energy procedia 2016 / p. 279-285 : ill

<https://doi.org/10.1016/j.egypro.2016.09.069> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Exhaust air heat pump connection schemes and balanced heat recovery ventilation effect on district heat energy use and return temperature

Thalfeldt, Martin; Kurnitski, Jarek; Latošov, Eduard Applied thermal engineering 2018 / p. 402-414 : ill

<https://doi.org/10.1016/j.applthermaleng.2017.09.033> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Factors affecting the improvement of district heating. Case studies of Estonia and Serbia

Rušeljuk, Pavel; Volkova, Anna; Lukic, Nebojša; Lepiksaar, Kertu; Nikolic, Novak; Nešovic, Aleksandar; Siirde, Andres

Environmental and Climate Technologies 2021 / p. 521–533 <https://doi.org/10.2478/rtuct-2020-0121> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heat pump use in rural district heating networks in Estonia

Lepiksaar, Kertu; Kalme, Kiur; Siirde, Andres; Volkova, Anna Environmental and climate technologies 2021 / p. 786–802

<https://doi.org/10.2478/rtuct-2021-0059> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heat storage combined with biomass CHP under the national support policy. A case study of Estonia

Volkova, Anna; Latošov, Eduard; Siirde, Andres Environmental and Climate Technologies 2020 / p. 171–184

<https://doi.org/10.2478/rtuct-2020-0011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heating sizing power reduction in buildings connected to district heating with dynamically controlled DHW setback and flow limiters

Hajian, Hatef; Simson, Raimo; Kurnitski, Jarek Energies 2022 / art. 5278 <https://doi.org/10.3390/en15145278> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The impact of parallel energy consumption on the district heating networks

Latošov, Eduard; Siirde, Andres; Volkova, Anna; Thalfeldt, Martin; Kurnitski, Jarek Environmental and Climate Technologies

2019 / 13 p. : ill <https://doi.org/10.2478/rtuct-2019-0001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improvement of district heating network energy efficiency by pipe insulation renovation with PUR foam shells

Mašatin, Vladislav; Volkova, Anna; Hlebnikov, Aleksandr; Latošov, Eduard Energy procedia 2017 / p. 265-269 : ill

<https://doi.org/10.1016/j.egypro.2017.04.064> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Large-scale heat pumps for district heating systems in the Baltics : potential and impact

Volkova, Anna; Koduvere, Hardi; Pieper, Henrik Renewable and sustainable energy reviews 2022 / art. 112749

Long-term policy recommendations for improving the efficiency of heating and cooling

Laktuka, Krista; Pakere, Ieva; Lauka, Dace; Blumberga, Dagnija; **Volkova, Anna** Environmental and Climate Technologies 2021 / p. 392–404 : ill <https://doi.org/10.2478/rtuct-2021-0029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Low-temperature waste heat enabling abandoning coal in Espoo district heating system

Hiltunen, Pauli; Syri, Sanna Energy 2021 / art. 120916, 11 p. : ill <https://doi.org/10.1016/j.energy.2021.120916> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Method of linear approximation of COP for heat pumps and chillers based on thermodynamic modelling and off-design operation

Pieper, Henrik; Krupenski, Igor; Markussen, Wiebke Brix; Ommen, Torben; Siirde, Andres; **Volkova, Anna** Energy 2021 / art. 120743 : ill <https://doi.org/10.1016/j.energy.2021.120743> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methodological approach to determining the effect of parallel energy consumption on district heating system

Latõšov, Eduard; **Volkova, Anna**; Siirde, Andres; Kurnitski, Jarek; Thalfeldt, Martin Environmental and Climate Technologies 2017 / p. 5-14 : ill <https://doi.org/10.1515/rtuct-2017-0001> [Journal metrics at Scopus](#) [Article at Scopus](#)

Methodology for the improvement of large district heating networks

Volkova, Anna; Mašatin, Vladislav; Hlebnikov, Aleksandr; Siirde, Andres Scientific journal of Riga Technical University. Environmental and climate technologies 2012 / p. 39-45 : ill <https://dom.lndb.lv/data/obj/file/30070253.pdf>

Methodology for the improvement of large district heating networks

Volkova, Anna; Mašatin, Vladislav; Hlebnikov, Aleksandr; Siirde, Andres Scientific journal of Riga Technical University. Environmental and climate technologies 2013 / p. 39-45 <https://dom.lndb.lv/data/obj/file/30070253.pdf>

Methodology for the improvement of large district heating networks

Volkova, Anna; Mašatin, Vladislav; Hlebnikov, Aleksandr; Siirde, Andres Proceedings of ECOS 2012 : the 25th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems : June 26-29, 2012, Perugia, Italy 2012 / p. 46-1 - 46-13 : ill <https://dom.lndb.lv/data/obj/file/30070253.pdf>

Modelling framework for integration of large-scale heat pumps in district heating using low-temperature heat sources : A case study of Tallinn, Estonia

Pieper, Henrik; Mašatin, Vladislav; **Volkova, Anna**; Ommen, Torben; Elmegaard, Brian; Markussen, Wiebke Brix International journal of sustainable energy planning and management 2019 / p. 67–86 : ill <https://doi.org/10.5278/ijsepm.2019.20.6> [Journal metrics at Scopus](#) [Article at Scopus](#)

Optimal design and dispatch of electrically driven heat pumps and chillers for a new development area

Pieper, Henrik; Ommen, Torben; Elmegaard, Brian; **Volkova, Anna**; Markussen, Wiebke Brix Environmental and Climate Technologies 2021 / p. 470–482 : ill <https://doi.org/10.2478/rtuct-2020-0117> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimizing building hybrid energy systems for demand response marketplace operation

Savolainen, Rebecka; Einolander, Johannes; Lahdelma, Risto Journal of Energy Storage 2024 / art. 114108 <https://doi.org/10.1016/j.est.2024.114108> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimizing solar energy integration in Tallinn's district heating and cooling systems

Lepiksaar, Kertu; Kajandi, G-M.; Sukumaran, Sreenath; Krupenski, Igor; Kirs, Tanel; **Volkova, Anna** Smart Energy 2025 / art. 100166 <https://doi.org/10.1016/j.segy.2024.100166>

Overview of solar photovoltaic applications for district heating and cooling

Sukumaran, Sreenath; Laht, Janika; **Volkova, Anna** Environmental and Climate Technologies / p. 964-979 <https://doi.org/10.2478/rtuct-2023-0070> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Peak shaving of a district heated office building with short-term thermal energy storage in Finland

Ju, Yuchen; Jokisalo, Juha; Kosonen, Risto Buildings 2023 / art. 573, 23 p. : ill <https://doi.org/10.3390/buildings13030573> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Policy incentives for flexible district heating in the Baltic countries

Møller Sneum, Daniel; Sandberg, Eli; Koduvere, Hardi; Olsen, Ole Jess; Blumberga, Dagnija Utilities policy 2018 / p. 61-72 : ill <https://doi.org/10.1016/j.jup.2018.02.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Primary energy factor for district heating networks in European Union member states

Latõšov, Eduard; Volkova, Anna; Siirde, Andres; Kurnitski, Jarek; Thalfeldt, Martin Energy procedia 2017 / p. 69-77 : ill
<https://doi.org/10.1016/j.egypro.2017.05.056> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Promoting efficient district heating in Estonia

Latõšov, Eduard; Umbleja, Siim; **Volkova, Anna** Utilities policy 2022 / art. 101332, 9. : ill <https://doi.org/10.1016/j.jup.2021.101332>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A review of low-temperature sub-networks in existing district heating networks : examples, conditions, replicability

Puschnigg, Stefan; Jauschnik, Gabriela; Moser, Simon; **Volkova, Anna;** Linhart, Matthias Energy Reports 2021 / p. 18-26 : ill
<https://doi.org/10.1016/j.egy.2021.09.044> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The impact of building renovation with heat pumps to competitiveness of district heating : Estonian district heating pricing system needs more flexibility

Reino, Arbo; Härm, Mihkel; Hamburg, Arvi 2017 IEEE 58th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [6] p. : ill
<http://dx.doi.org/10.1109/RTUCon.2017.8124791>

Valorisation of waste heat in existing and future district heating systems

Pakere, leva; Blumberga, Dagnija; **Volkova, Anna;** Lepiksaar, Kertu; Zime, Agate Energies 2023 / art. 6796
<https://doi.org/10.3390/en16196796> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Waste Heat-Based District Heating Network for Industrial Buildings With Low Energy Intensity

Ali, Hesham Abed Al-Same Jamil; Pakere, leva; **Hlebnikov, Aleksandr;** Djørup, Søren; **Dedov, Andrei;** **Volkova, Anna** 9th International Conference on Smart Energy Systems : Book of Abstracts 2023 / p. 286 <https://vbn.aau.dk/en/publications/book-of-abstracts-9th-international-conference-on-smart-energy-sy>