

Curriculum Vitae

* PERSONAL INFORMATION

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|---|--|------|------|
| Family name, First name: | Farahmand, Hossein | | |
| Date of birth: | 16.09.1979 | Sex: | male |
| Nationality: | Norwegian-Iranian | | |
| Researcher unique identifier(s) (ORCID, ResearcherID, etc.): | ORCID ID: http://orcid.org/0000-0003-1125-8296 Scopus Author ID: 22634565400 | | |
| URL for personal website: | https://www.ntnu.no/ansatte/hossein.farahmand | | |
| IEEE Membership | Senior Member | | |

* EDUCATION

| | Name of faculty/department, name of university/institution, country |
|------|--|
| 2012 | PhD , Department of Electric Power Engineering Norwegian University of Science and Technology (NTNU), Trondheim, Norway |
| 2005 | Master of Science (M.Sc.) Department of Electrical Engineering, Shahid Bahonar University of Kerman, Kerman, Iran |
| 2002 | Bachelor of Science (B.Sc.) Department of Electrical Engineering, Ferdowsi University of Mashad, Mashad, Iran |

* POSITIONS

Current Position

| | Job title/name of employer/country |
|----------|--|
| 2015-Now | Associate Professor and Deputy head of research group for Electricity Markets and Energy System Planning/ Department of Electric Power Engineering (IEL) , Norwegian University of Science and Technology (NTNU)/ Norway |

Previous positions held

| | Job title/name of employer/country |
|-----------|---|
| 2012-2015 | Research Scientist/ Department of Energy Systems, SINTEF Energy Research/Norway |
| 2007-2012 | PhD Research Fellow / Department of Electric Power Engineering, Norwegian University of Science and Technology (NTNU)/ Norway |

PROJECT MANAGEMENT EXPERIENCE

| | Project and role, funding from |
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| 2020-Now | IntHydro, Project leader, NFR |
| 2019-Now | HONOR, Project leader, ERA-Net Smart Energy System |
| 2017-2019 | H2020 INVADE, WP leader, EU |
| 2107-Now | PRIBAS – Pricing Balancing Services in the Future Nordic Power Market, NFR |
| 2016-Now | CINELDI FME, Task leader, NFR |
| 2019-Now | NTRANS FME, Task leader, NFR |
| 2014-2015 | EU-IEE IRPWIND, WP leader, EU |
| 2013-2015 | EU FP7 eHighway2050, WP leader, EU |
| 2012-2013 | EU FP7 TWENTIES project- WP16.2 & WP16.3, Project Partner, NFR |
| 2008-2011 | Balance Management in Multinational Power Markets, Project Partner, NFR |

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

| | No. of | Master's students/ Ph.D./Postdocs | Name of faculty/department/centre, name of university/institution/country |
|-----------|--------|--------------------------------------|---|
| 2010-Now | 29 | Master students | Faculty of IE/Department of IEL/NTNU/Norway |
| 2016-Now | 4 | PhD students (main supervisor) | Faculty of IE/Department of IEL/NTNU/Norway |
| 2016-Now | 3 | PhD students (co-supervisor) | Faculty of IE/Department of IEL/NTNU/Norway |
| 2107-2019 | 2 | Postdocs | Faculty of IE/Department of IEL/NTNU/Norway |

TEACHING ACTIVITIES

| | Teaching position – topic, name of university/institution/country |
|----------|--|
| 2015-now | Course Coordinator and lecturer-TET4185, Power Markets, Resources and Environment, NTNU/Norway |
| 2019 | Invited lecturer-TET 4135- Energy Systems Planning and Operation, NTNU/Norway |
| 2018 | Course Coordinator and lecturer-ELK15- Hydro Power Scheduling and Miscellaneous Topics on Electricity Markets, NTNU/Norway |
| 2019 | Invited lecturer in the PhD course - ET8208 - Power Market Theory, NTNU/Norway |

ORGANISATION OF MEETINGS

| | Role and name of event/number of participants/country |
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|------|---|
| 2011 | Member of Local Organizing Committee (Paper & review chair) at 2011 IEEE PES PowerTech-Trondheim conference |
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INSTITUTIONAL RESPONSIBILITIES

| | Name of university/institution/country |
|-------|---|
| 2015- | PhD evaluation committee administrator for 2 PhD dissertations at NTNU |
| 2016 | Search Committees for Faculty Appointments at the Department of Electric Power Engineering, NTNU, Norway. |
| 2017- | PhD evaluation committee member for other universities: UNSW, Australia |
| 2018 | Assessment committee: Research Scientist at DTU |

COMMISSIONS OF TRUST IN ACADEMIC, PUBLIC OR PRIVATE ORGANISATIONS

| | Name of university/institution/country – and role |
|----------|---|
| 2015-Now | Scientific advisor, SINTEF Energy Research |
| 2019-Now | Series Steering Committee, International Conference on Smart Energy Systems and Technologies (SEST) conference |
| 2017-Now | Technical Programme Committee Member, International Conference on Smart Energy Systems and Technologies (SEST) conference |
| 2019 | Technical Programme Committee Member, 9th International Conference on Power and Energy Systems (ICPES 2019) conference, in Perth, Australia |
| 2012- | Reviewer, several international conferences and journals. |

MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES / NETWORKS

| | Name of academies, scientific societies, networks |
|----------|---|
| 2010-now | IEEE PES member |
| 2017- | CIGRE |

Track record

- 70 publications including 61 peer-reviewed articles and one book chapters and eight technical reports.
- My h-index in Google Scholar is 16, and there are 825 citations to my research papers
- PhD-thesis: “Integrated Power System Balancing in Northern Europe - Models and Case Studies”, NTNU, 2012.

JOURNAL PUBLICATIONS

1. Naversen, Christian Øyn; Helseth, Arild; Li, Bosong; Parvania, Masood; Farahmand, Hossein; Catalao, João P.S.. (2020) **Hydrothermal scheduling in the continuous-time framework**. *Electric power systems research*. vol. 189
2. Bozorgavari, Seyed Aboozar; Aghaei, Jamshid; Pirouzi, Sasan; Nikoobakht, Ahmad; Farahmand, Hossein; Korpås, Magnus. **Robust planning of distributed battery energy storage systems in flexible smart distribution networks: A comprehensive study**. *Renewable & Sustainable Energy Reviews* 2020 ;Volum 123.
3. Naversen, Christian Øyn; Farahmand, Hossein; Helseth, Arild. **Accounting for reserve capacity activation when scheduling a hydropower dominated system**. *International Journal of Electrical Power & Energy Systems* 2020 ;Volum 119.
4. Aghaei, Jamshid; Bozorgavari, Seyed Aboozar; Pirouzi, Sasan; Farahmand, Hossein; Korpås, Magnus. **Flexibility Planning of Distributed Battery Energy Storage Systems in Smart Distribution Networks**. *Iranian Journal of Science and Technology - Transactions of Electrical Engineering* 2019
5. Bozorgavari, Seyed Aboozar; Aghaei, Jamshid; Pirouzi, Sasan; Vahidinasab, Vahid; Farahmand, Hossein; Korpås, Magnus. **Two-stage hybrid stochastic/robust optimal coordination of distributed battery storage planning and flexible energy management in smart distribution network**. *Journal of Energy Storage* 2019 ;Volum 26.
6. Lillebo, Martin; Zaferanlouei, Salman; Zecchino, Antonio; Farahmand, Hossein. **Impact of large-scale EV integration and fast chargers in a Norwegian LV grid**. *The Journal of Engineering*, vol. 2019, no. 18, pp. 5104-5108, 2019
7. Nikoobakht, Ahmad; Aghaei, Jamshid; Farahmand, Hossein; Lakshmanan, Venkatachalam; Korpås, Magnus. **Flexibility of controllable power transformers for managing wind uncertainty using robust adjustable linearised optimal power flow**. *IET Renewable Power Generation* 2019 ;Volum 13.(2) s.262-272
8. Nikoobakht, Ahmad; Aghaei, Jamshid; Niknam, Taher; Farahmand, Hossein; Korpås, Magnus. **Electric vehicle mobility and optimal grid reconfiguration as flexibility tools in wind integrated power systems**. *International Journal of Electrical Power & Energy Systems* 2019 ;Volum 110. pp.83-94
9. Pirouzi, Sasan; Aghaei, Jamshid; Niknam, Taher; Khooban, Mohammad Hassan; Dragicevic, Tomislav; Farahmand, Hossein; Korpås, Magnus; Blaabjerg, Frede. **Power Conditioning of Distribution Networks via Single-Phase Electric Vehicles Equipped**. *IEEE Systems Journal* 2019 ;Volum 13.(3) pp.3433- 3442
10. Akbari, Mohammad Amin; Aghaei, Jamshid; Barani, Mostafa; Niknam, Taher; Ghavidel, Sahand; Farahmand, Hossein; Korpås, Magnus; Li, Li. **Convex Models for Optimal Utility-Based Distributed Generation Allocation in Radial Distribution Systems**. *IEEE Systems Journal* 2018 ;Volum 12.(4) pp.3497-3508

11. Barani, Mostafa; Aghaei, Jamshid; Akbari, Mohammad Amin; Niknam, Taher; Farahmand, Hossein; Korpås, Magnus. **Optimal partitioning of smart distribution systems into supply-sufficient microgrids.** *IEEE Transactions on Smart Grid*, vol. 10, no. 3, pp. 2523-2533, May 2019
12. Kristiansen, Martin; Korpås, Magnus; Farahmand, Hossein. **Economic and environmental benefits from integrated power grid infrastructure designs in the North Sea.** *Journal of Physics: Conference Series* 2018 ;Volum 1104.(1)
13. Kristiansen, Martin; Korpås, Magnus; Farahmand, Hossein. **Towards a fully integrated North Sea offshore grid: An engineeringeconomic assessment of a power link island.** *Wiley Interdisciplinary Reviews: Energy and Environment* 2018 ;Volum 7.(4)
14. Nikoobakht, Ahmad; Aghaei, Jamshid; Niknam, Taher; Vahidinasab, Vahid; Farahmand, Hossein; Korpås, Magnus. **Towards robust OPF solution strategy for the future AC/DC grids: Case of VSC-HVDC-connected offshore wind farms.** *IET Renewable Power Generation* 2018 ;Volum 12.(6) pp.691-701
15. Sasan, Pirouzi; Aghaei, Jamshid; Niknam, Taher; Farahmand, Hossein; Korpås, Magnus. **Exploring prospective benefits of electric vehicles for optimal energy conditioning in distribution networks.** *Energy* 2018 ;Volum 157. pp.679-689
16. Sasan, Pirouzi; Aghaei, Jamshid; Niknam, Taher; Farahmand, Hossein; Korpås, Magnus. **Proactive operation of electric vehicles in harmonic polluted smart distribution networks.** *IET Generation, Transmission & Distribution* 2018;Volum 12.(4) pp.967-975
17. Lie, Arne Øvrebø; Rye, Eirik Andre; Svendsen, Harald Georg; Farahmand, Hossein; Korpås, Magnus. **Validation study of an approximate 2014 European power-flow model using PowerGAMA.** *IET Generation, Transmission & Distribution* 2017;Volum 11.(2) pp.392-400
18. Riboldi, Luca; Cheng, Xiaomei; Farahmand, Hossein; Korpås, Magnus; Nord, Lars O. **Effective Concepts for Supplying Energy to a Large Offshore Oil and Gas Area under Different Future Scenarios.** *Chemical Engineering Transactions* 2017 ;Volum 61. pp.1597-1602
19. Dorn, Frederic; Farahmand, Hossein; Skjelbred, Hans Ivar; Belsnes, Michael Martin. **Modelling Minimum Pressure Height in Short-term Hydropower Production Planning.** *Energy Procedia* 2016 ;Volum 87.
20. Huertas-Hernando, Daniel; Farahmand, Hossein; Holttinen, Hannele; Kiviluoma, Juha; Rinne, Erkka; Söder, Lennart; Milligan, Michael; Ibanez, Eduardo; Martinez, Sergio Martin; Gómez-Lázaro, Emilio; Estanqueiro, Ana; Rodrigues, Luis; Carr, Luis; van Roon, Serafin; Orths, Antje; Eriksen, Peter Borre; Forcione, Alain; Menemenlis, Nickie. **Hydro power flexibility for power systems with variable renewable energy sources: an IEA Task 25 collaboration.** *Wiley Interdisciplinary Reviews: Energy and Environment* 2016 ;Volum 6: WIREs Energy Environ, e220. pp.1-20
21. Uhlen, Kjetil; Jaehnert, Stefan; Hamon, Camille; Bruno, C; Farahmand, Hossein; Inoue, T; Matevosjana, J; Nobel, F. A.; Sørensen, P. **Analytical techniques and tools for power balancing assessments.** *Cigre Science & Engineering* 2016 ;Volum April.(285) pp.69-73
22. Farahmand, Hossein; Jaehnert, Stefan; Aigner, Tobias; Huertas-Hernando, Daniel. **Nordic hydropower flexibility and transmission expansion to support integration of North European wind power.** *Wind Energy* 2015 ;Volum 18.(6) pp.1075-1103
23. Gebrekiros, Yonas Tesfay; Doorman, Gerard L.; Jaehnert, Stefan; Farahmand, Hossein. **Reserve procurement and transmission capacity reservation in the Northern European power market.** *International Journal of Electrical Power & Energy Systems* 2015 ;Volum 67. pp.546-559
24. Farahmand, Hossein; Warland, Leif; Huertas-Hernando, Daniel. **The Impact of Active Power Losses on the Wind Energy Exploitation of the North Sea.** *Energy Procedia* 2014 ;Volum 53. pp.70-85
25. Endegnanew, Atsede Gualu; Farahmand, Hossein; Huertas-Hernando, Daniel. **Frequency Quality in the Nordic Power System: Wind Variability, Hydro Power Pump Storage and Usage of HVDC Links.** *Energy Procedia* 2013 ;Volum 35. pp.62-68
26. Jaehnert, Stefan; Wolfgang, Ove; Farahmand, Hossein; Völler, Steve; Huertas-Hernando,

- Daniel. **Transmission expansion planning in Northern Europe in 2030-Methodology and analyses.** *Energy Policy* 2013 ;Volum 61. pp.125-139
27. Farahmand, Hossein; Aigner, Tobias; Doorman, Gerard L.; Korpås, Magnus; Huertas-Hernando, Daniel. **Balancing Market Integration in the Northern European Continent: A 2030 Case Study.** *IEEE Transactions on Sustainable Energy* 2012 ;Volum 3.(4) pp.918-930
28. Farahmand, Hossein; Doorman, Gerard L. **Balancing market integration in the Northern European continent.** *Applied Energy* 2012 ;Volum 96. pp.316-326
29. Farahmand, Hossein; Rashidinejad, M.; Mousavi, Ali; Gharaveisi, A.A.; Irving, M.R.; Taylor, G.A. **Hybrid Mutation Particle Swarm Optimisation method for Available Transfer Capability enhancement.** *International Journal of Electrical Power & Energy Systems* 2012 ;Volum 42.(1) pp.240-249
30. M. Rashidinejad, H. Farahmand, M. Fotuhi-Firuzabad, A.A. Gharaveisi, **ATC enhancement using TCSC via artificial intelligent techniques,** *Electric Power Systems Research*, Volume 78, Issue 1, 2008, pp. 11-20,

CONFERENCE ARTICLES

1. Thorvaldsen, Kasper Emil; Bjarghov, Sigurd; Farahmand, Hossein. **Representing Long-term Impact of Residential Building Energy Management using Stochastic Dynamic Programming.** I: 2020 International Conference on Probabilistic Methods Applied to Power Systems - PMAPS. IEEE 2020 (received gold Roy Billinton best student paper award)
2. Haugen, Mari; Helseth, Arild; Jaehnert, Stefan; Mo, Birger; Farahmand, Hossein; Naversen, Christian Øyn. **On the Importance of Detailed Thermal Modeling for Price Forecasting in Hydro-Thermal Power Systems.** *2019 IEEE Electrical Power and Energy Conference - EPEC 2019.*
3. Almenning, Ola Mathias; Bjarghov, Sigurd; Farahmand, Hossein. **Reducing Neighborhood Peak Loads with implicit Peer-to-Peer energy trading under Subscribed Capacity tariffs.** *2019 International Conference on Smart Energy Systems and Technologies - SEST.* IEEE 2019
4. Seijas Fernandez, Andres Antonio; Crespo del Granado, Pedro; Farahmand, Hossein; Rueda, Jose. **Optimal battery systems designs for Distribution Grids: What size and location to invest in?.** *2019 International Conference on Smart Energy Systems and Technologies - SEST.* IEEE 2019
5. Villanueva Revenga, Rodrigo; Crespo del Granado, Pedro; Oleinikova, Irina; Farahmand, Hossein. **A Minute-To-Minute Unit Commitment Model to Analyze Generators Performance.** *International Conference on the European Energy Market 2019*
6. Bellenbaum, Julia; Weber, Christoph; Doorman, Gerard L.; Farahmand, Hossein. **Balancing Market Integration - Model-Based Analysis of Potential Cross-Border Reserve Exchange Between Norway and Germany.** *International Conference on the European Energy Market 2018 ; June-2018*
7. Bjarghov, Sigurd; Crespo del Granado, Pedro; Farahmand, Hossein; Korpås, Magnus. **Value of prosumer house batteries: Experiences across the EU.** *IAEE International Conference 2018 (41st)*
8. Bjarghov, Sigurd; Del Granado, Pedro Crespo; Farahmand, Hossein; Korpås, Magnus. **Value of prosumer House batteries: Experiences across the EU.** *IAEE International Conference; 2018*
9. Blom, Fredrik; Farahmand, Hossein. **On the Scalability of Blockchain-Supported Local Energy Markets,** *2018 International Conference on Smart Energy Systems and Technologies - SEST.* IEEE conference proceedings 2018
10. Helseth, Arild; Haugen, Mari; Jaehnert, Stefan; Mo, Birger; Farahmand, Hossein; Naversen, Christian Øyn. **Multi-Market Price Forecasting in Hydro-Thermal Power Systems.** *2018 15th International Conference on the European Energy Market - EEM.* IEEE conference proceedings 2018

11. Kristiansen, Martin; Korpås, Magnus; Farahmand, Hossein. **Towards a fully integrated North Sea Offshore Grid: An engineering-economic assessment of a Power Link Island.** EERA DeepWind'19, 2018
12. Tveita, Elise; Löschenbrand, Markus; Bjarghov, Sigurd; Farahmand, Hossein. **Comparison of Cost Allocation Strategies among Prosumers and Consumers in a Cooperative Game.** *2018 International Conference on Smart Energy Systems and Technologies - SEST.* IEEE conference proceedings 2018.
13. Zaferanlouei, Salman; Korpås, Magnus; Aghaei, Jamshid; Farahmand, Hossein; Hashemipour, Naser. **Computational Efficiency Assessment of Multi-Period AC Optimal Power Flow including Energy Storage Systems.** *2018 International Conference on Smart Energy Systems and Technologies - SEST.* IEEE conference proceedings 2018
14. Cheng, Xiaomei; Korpås, Magnus; Farahmand, Hossein. **The impact of electrification on power system in Northern Europe.** *International Conference on the European Energy Market 2017*
15. Löschenbrand, Markus; Farahmand, Hossein; Korpås, Magnus. **Impact of inertial response requirements on a multi area renewable network.** *12th IEEE Power and Energy Society PowerTech Conference PowerTech Manchester 2017.* IEEE Press 2017.
16. Ranaweera, Iromi; Midtgård, Ole-Morten; Korpås, Magnus; Farahmand, Hossein. **Control strategies for residential battery energy storage systems coupled with PV systems.** *2017 IEEE International Conference on Environment and Electrical Engineering and 2017 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I & CPS Europe.* IEEE Press 2017
17. Riboldi, Luca; Nord, Lars O.; Cheng, Xiaomei; Farahmand, Hossein; Korpås, Magnus. **Effective Concepts for Supplying Energy to a Large Offshore Oil and Gas Area under Different Future Scenarios.** PRES 17 - 20th Conference Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction; 2017
18. Zaferanlouei, Salman; Korpås, Magnus; Farahmand, Hossein; Vadlamudi, Vijay Venu. **Integration of PEV and PV in Norway Using Multi-Period ACOPF — Case Study.** 12th IEEE Power and Energy Society PowerTech Conference PowerTech Manchester 2017. IEEE Press 2017
19. Eirik A., Rye; Arne Ø., Lie; Svendsen, Harald Georg; Korpås, Magnus; Farahmand, Hossein. **Analyzing large-scale renewable energy integration and energy storage in Morocco using a flow-based market model.** 13th International Conference on the European Energy Market (EEM); 2016
20. Kristiansen, Martin; Korpås, Magnus; Farahmand, Hossein; Graabak, Ingeborg; Härtel, Philipp. **Introducing System Flexibility to a Multinational Transmission Expansion Planning Model.** *19th Power Systems Computation Conference PSCC 2016.* IEEE conference proceedings 2016.
21. Rye, Eirik Andre; Lie, Arne Øvrebø; Svendsen, Harald Georg; Korpås, Magnus; Farahmand, Hossein. **Analyzing large-scale renewable energy integration and energy storage in Morocco using a flow-based market model.** 2016 13th International Conference on the European Energy Market : EEM2016. IEEE conference proceedings 2016
22. Zaferanlouei, Salman; Ranaweera, Iromi; Korpås, Magnus; Farahmand, Hossein. **Optimal Scheduling of Plug-in Electric Vehicles in Distribution Systems Including PV, Wind and Hydropower Generation.** *6th Solar Integration Workshop International Workshop on Integration of Solar Power into Power System.* Energynautics GmbH 2016
23. Gebrekiros, Yonas Tesfay; Doorman, Gerard L.; Jaehnert, Stefan; Farahmand, Hossein. **Balancing Energy Market Integration Considering Grid Constraints.** *PowerTech Eindhoven 2015.* IEEE Press 2015
24. Gebrekiros, Yonas Tesfay; Doorman, Gerard L.; Farahmand, Hossein; Jaehnert, Stefan. **Benefits of cross-border reserve procurement based on pre-allocation of transmission capacity.** *2013 IEEE Grenoble PowerTech.* IEEE 2013
25. Gebrekiros, Yonas Tesfay; Doorman, Gerard L.; Jaehnert, Stefan; Farahmand, Hossein. **Bidding in the**

- Frequency Restoration Reserves (FRR) Market for a Hydropower Unit.** *4th IEEE PES Innovative Smart Grid Technologies Europe (ISGT Europe, Lyngby, 6-9 Oct. 2013.* IEEE International Conference on Smart Grid Communications (SmartGridComm) 2013.
26. Gebrekiros, Yonas Tesfay; Farahmand, Hossein; Doorman, Gerard L. **Impact of Reserve Market Integration on the Value of the North Sea Offshore Grid Alternatives.** *9th International Conference on the European Energy Market (EEM 2012).* IEEE conference proceedings 2012
 27. Farahmand, Hossein; Doorman, Gerard L.. **Modelling of Balancing Market Integration in the Northern European Continent.** *Proceeding - 17th Power Systems Computations Conference PSCC 2011.*
 28. Farahmand, Hossein; Huertas-Hernando, Daniel; Warland, Leif; Korpås, Magnus; Svendsen, Harald Georg. **Impact of system power losses on the value of an offshore grid for North Sea offshore wind.** PowerTech 2011 Proceedings. IEEE conference proceedings 2011
 29. Farahmand, Hossein; Hosseini, Seyed Mohammad Ali; Doorman, Gerard L.; Fosso, Olav B. **Flow Based Activation of Reserves in the Nordic Power System.** *IEEE Power & Energy Society General Meeting 2010*
 30. Ravnaas, Kristian Wiik; Farahmand, Hossein; Doorman, Gerard L. **Optimal Wind Farm Bids under Different Balancing Market Arrangements.** *IEEE 11th International Conference on Probabilistic Methods Applied to Power Systems (PMAPS) 2010.* 2010 pp.30-35
 31. Jaehnert, Stefan; Farahmand, Hossein; Doorman, Gerard L. **Modelling of prices using the volume in the Norwegian regulating power market.** 2009 IEEE Bucharest PowerTech. IEEE conference proceedings 2009

BOOK CHAPTERS AND TECHNICAL PROJECT REPORTS

1. Cutululis, Nicolaos Antonio; Farahmand, Hossein; Jaehnert, Stefan; Detlefsen, Nina K. S.; Byriel, I.P.; Sørensen, Poul. **Hydropower flexibility and transmission expansion to support integration of offshore wind. I: Offshore Wind Farms: Technologies, Design and Operation.** Book Chapter, Woodhead Publishing Limited 2016 ISBN 978-0-08-100779-2. pp.495-523
2. Pol Olivella-Rosell, Pau Lloret, Leon Haupt, Sigurd Bjarghov, Venkatachalam Lakshmanan, Hossein Farahmand, Magnus Korpås, Juhaa Forsström, Victor Mukherjee, Ari Hentunen, Stig Ødegaard Ottesen, Terje Lundby, **Advanced Optimal Battery operation and control algorithm,** INVADE H2020, D5.4, 2019.
3. Ottesen, Stig Ødegaard; Olivella, Pol; Lloret, Pau; Hentunen, Ari; Del Granado, Pedro Crespo; Bjarghov, Sigurd; Lakshmanan, Venkatachalam; Aghaei, Jamshid; Korpås, Magnus; Farahmand, Hossein., **Simplified Battery operation and Control algorithm,** INVADE H2020, D5.3, 2018.
4. Korpås, Magnus; Farahmand, Hossein; Del Granado, Pedro Crespo; Ottesen, Stig Ødegaard; Olivella, Pol; Lloret, Pau. **Methods for assessing the value of flexibility in distribution grids.** INVADE H2020, D 5.2, 2017
5. Bødal, Espen Flo; Del Granado, Pedro Crespo; Farahmand, Hossein; Korpås, Magnus; Olivella, Pol; Munné, Ingrid; Lloret, Pau., **Challenges in distribution grid With high penetration of renewables,** INVADE H2020, D 5.1, 2017.
6. Holttinen, Hannele; Kiviluoma, Juha; Forcione, Alain; Milligan, Michael; Smith, Charles J; Dobschinski, Jan; van Roon, Serafin; Dillon, Jody; Cutululis, Nicolaos Antonio; Orths, Antje; Eriksen, Peter Børre; Carlini, Enrico Maria; Estanqueiro, Ana; Bessa, Ricardo; Söder, Lennart; Farahmand, Hossein; Vrana, Til Kristian; Torres, Jose Rueda; Jianhua, Bai; Kondoh, Junji; Pineda, Ivan; Strbac, Goran. **Design and operation of power systems with large amounts of wind power. Final summary report, IEA WIND Task 25,** Phase three 2012-2014. VTT Technology 2016
7. Sanchis, Gerald; Bakken, Bjørn Harald; Anderski, Thomas; Peirano, Eric; Pestana, Rui; De

Clercq, Bernard; Migliavacca, Gianluigi; Czernie, Marc; Panciatici, Patrick; Paun, Mihai; Grisey, Nathalie; Huertas-Hernando, Daniel; Warland, Leif; Vrana, Til Kristian; Farahmand, Hossein. **Europe's future secure and sustainable electricity infrastructure : e-Highway2050 project results**. RTE 2015

8. Farahmand, Hossein; Jaehnert, Stefan; Aigner, Tobias; Huertas-Hernando, Daniel. **TWENTIES Task 16.3. Nordic hydro power generation flexibility and transmission capacity expansion to support North European wind power: 2020 and 2030 case studies**. TWENTIES 2013 .
9. Grande, Ove Steinar; Doorman, Gerard L.; Hernando, Daniel Huertas; Farahmand, Hossein. **Alternative schemes for exchange of balancing resources between separate synchronous systems in Northern Europe**. SINTEF Energi A 2011 (ISBN 978-82-594-3482-1) SINTEF Energi. Report (TR A7102)