Call for Papers – IEEE Transactions on Smart Grid

Special section on

Energy Systems Integration

Energy Systems Integration (ESI) is the process of coordinating the operation and planning of energy systems across multiple pathways and/or geographical scales to deliver reliable, cost-effective energy services with minimal impact on the environment. Energy systems have evolved from individual systems with little or no dependencies into a complex set of integrated systems at scales that include customers, cities, and regions. This evolution has been driven by political, economic, and environmental objectives. As we try to meet the globally recognized imperative to reduce carbon emissions through the deployment of large renewable energy capacities while also maintaining reliability and competiveness, flexible energy systems are required. This flexibility can be attained through integrating various systems: by physically linking energy vectors, namely electricity, heat, and fuels; by coordinating these vectors across other infrastructures, namely water, data, and transport; by institutionally coordinating energy markets; and, spatially, by increasing market footprint with granularity all the way down to the customer level. Smart grids and ESI have overlaps in particular the interaction between electricity, consumers, data and transport. This special issue therefore focusses on the aspects of ESI where electricity is coupled to water, heat and fuels and where this coupling brings challenges and/or opportunities. Topics of interest include, but are not limited to:

- Multi energy system modelling
- Integrated energy markets
- Combined heat and power
- Electricity water nexus
- Electricity gas coupling
- Planning of integrated energy systems
- Operating integrated energy systems
- Case studies of integrated energy systems

This special section solicits original work that is not under consideration for publication in other venues. Extended abstracts of up to two pages are requested for the first round of reviews. Authors of selected extended abstracts will be invited to submit full papers, of up to eight pages, in a second round of reviews. Prospective authors should refer to http://www.ieee-pes.org/publications/information-for-authors for guidelines on content and formatting of submissions. Please submit a PDF version of the extended abstract, including a cover letter with the authors' contact information, via e-mail to ieeetsgesi@ucd.ie. Full papers should be submitted to: https://mc.manuscriptcentral.com/tsg-pes

Important Dates

- January 15th, 2017: Deadline for extended abstract submission
- February 15th, 2017: Decision notification for inviting full paper submissions
- July 1st, 2017: Deadline for full paper submission
- Jan 1st, 2018: Notification of final decisions
- Feb 1st, 2018: Publication materials due

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