[Selected list of publications on green cellular networks (2011)]

[1] Kyuho Son, Hongseok Kim, Yung Yi and Bhaskar Krishnamachari, "Base Station Operation and User Association Mechanisms for Energy-Delay Tradeoffs in Green Cellular Networks," IEEE Journal on Selected Area in Communications: Special Issue on Energy-Efficient Wireless Communications, vol. 29, no. 8, pp.1525-1536, Aug. 2011.
- This paper develops a theoretical framework for BS energy saving that encompasses dynamic BS operation and the related problem of user association jointly. In particular, our models for BS energy consumption and flow-level performance are general enough to be applied to various types of problems.

[2] Eunsung Oh, Bhaskar Krishnamachari, Xin Liu and Zhisheng Niu, "Towards Dynamic Energy-Efficient Operation of Cellular Network Infrastructure," IEEE communications magazine, vol. 49, no. 6, pp. 56-61, June 2011.
- Considering the BS topology in UK and real traffic traces, this article estimates how much energy we could save if some under-utilized BSs are turned off during off-peak hours. It also identifies a number of interesting open questions to be addressed in future research.

[3] Kyuho Son, Eunsung Oh and Bhaskar Krishnamachari, "Energy-Aware Hierarchical Cell Configuration: from Deployment to Operation," in Proc. IEEE INFOCOM 2011 Workshop on Green Communications and Networking, Shanghai, China, Apr. 2011, pp. 289-294.
- In order to unburden cellular operators from huge CAPEX & OPEX, this paper focuses on providing theoretical implications and practical solutions for the following two key questions: i) deployment problem: where and how many micro BSs need to be deployed?, ii) operation problem: how to operate macro and micro BSs in an energy-efficient manner?

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