

REFERENCES

- [1] G. Gross and P. Marannino, "The impacts of open access transmission system in the USA," Memoria 13, 23° Corso di Aggiornamento Apparecchi Macchine e Impianti Elettrici : *Il nuovo assetto dell'energia elettrica in Italia a seguito dell'attuazione della direttiva comunitaria 92/1996 per la liberalizzazione del mercato elettrico*, Pavia, October 19 - 21, 1999.
- [2] Public Utility Regulatory Policy Act of 1978 (PURPA), <http://www.ferc.fed.us/intro/acts/purpa.htm>.
- [3] Energy Policy Act of 1992, Public Law 102-486, 106 Stat. 2776, 1992.
- [4] Federal Energy Regulatory Commission (FERC), "Promoting wholesale competition through open access non-discriminatory transmission services by public utilities and recovery of stranded costs by public utilities and transmitting utilities," Docket Nos. RM95-8-000 and RM94-7-001, Order No. 888, Washington, DC, April 24, 1996.
- [5] Federal Energy Regulatory Commission (FERC), "Open access same-time information system (formerly real-time information networks) and standards of conduct," Docket No. RM95-9-001, Order No. 889, Washington, DC, April 24, 1996.
- [6] The California Independent System Operator, <http://www.caiso.com>.
- [7] The Pennsylvania-New Jersey Maryland (PJM) Interconnection, <http://www.pjm.com>
- [8] The New England Independent System Operator, <http://www.iso-ne.com>.
- [9] The New York Independent System Operator, <http://www.nyiso.com>.
- [10] North American Electric Reliability Council (NERC) Policy 9, Security Coordinator Procedure, Draft 3, June 8, 1998, Appendix C, Load Relief Procedures.
- [11] North American Electric Reliability Council (NERC), Interconnected Operations Services Working Group (IOS WG), "Defining interconnected operations services under open access," Final Report, March 7, 1997.
- [12] E. Hirst and B. Kirby, *Electric Power Ancillary Services*. Oak Ridge, TN: Oak Ridge National Laboratory, 1996.

- [13] Federal Energy Regulatory Commission (FERC), "Regional transmission organizations," Docket No. RM99-2-000, Order No. 2000, Washington, DC, December 20, 1999.
- [14] R. Nadira, F. F. Wu, D. J. Maratukulam, E. P. Weber, and C. L. Thomas, "Bulk transmission system loss analysis," *IEEE Transactions on Power Systems*, vol. 8, no. 2, pp. 405-417, May 1993.
- [15] R. Nadira, "Bulk transmission system loss analysis," EPRI Report, EL-6814, May 1990.
- [16] D. Kirschen, R. Allan, and G. Strbac, "Contributions of individual generators to loads and flow," *IEEE Transactions Power Systems*, vol. 12, no. 1, pp. 52-60, February 1997.
- [17] J. Bialek, "Topological generation and load distribution factors for supplement charge allocation in transmission open access," *IEEE Transaction on Power Systems*, vol. 12, no. 3, pp. 1185-1194, August 1997.
- [18] R. Shoults and L. D. Swift, "Methods for evaluating flows attributable to each generator," in *Proceedings of the Workshop on Available Transfer Capability*, G. Gross, Ed., 1997, pp. 166-197.
- [19] Federal Energy Regulatory Commission, "The phase II filing of the California Independent System Operator Corporation," Docket Nos. EC96-19-001 and ER96-1663-001, March 31, 1997.
- [20] F. F. Wu and P. Varaiya, "Coordinated multilateral trades for electric power networks: theory and implementation," University of California Energy Institute, Berkeley, California, POWER Report PWP-031, June, 1995.
- [21] L. Billera and D. Heath, "Allocation of shared costs: A set of axioms yielding a unique procedure," *Mathematics of Operations Research*, vol. 7, no. 1, pp. 32-39, February, 1982.
- [22] X. Filho et al., "Efficient pricing schemes in competitive environments using cooperative game theory," in *Proceedings of the 13th PSCC in Trondheim*, June 28-July 2, 1999
- [23] F.D. Galiana and M. Phelan, "Allocation of transmission losses to bilateral contracts in a competitive environment," *IEEE Transactions on Power Systems*, vol. 15, no. 1, pp. 143-150, February 2000.
- [24] A. Zobian and M. D. Illic, "Unbundling of transmission and ancillary services Part I: Technical issues," *IEEE Transactions on Power Systems*, vol. 12, no. 2, pp. 539-548, May 1997.

- [25] G. Gross, S. Tao, E. Bompard, and G. Chicco, "Reactive support services: Key characteristics and dominant cost component," *IEEE Transactions on Power Systems* (submitted for publication).
- [26] S. Hao and A. Papalexopoulos, "Reactive power pricing and management," *IEEE Transactions on Power Systems*, vol. 12, pp. 95-104, February 1997.
- [27] W. W. Hogan, "Markets in real electric networks require reactive prices," *The Energy Journal*, vol. 14, no. 3, pp. 171-200, September 1993.
- [28] D. Chattopadhyay, K. Bhattacharya, and J. Parikh, "Optimal reactive power planning and its spot pricing: An integrated approach," *IEEE Transactions on Power Systems*, vol. 10, no. 4, pp. 2014-2020, November 1995.
- [29] J. D. Weber, M. J. Laufenberg, T. J. Overbye, and P. W. Sauer, "Assessing the value of reactive power services in electric power systems," in *Proceeding of Conference on Unbundled Power Quality Services*, Key West, Florida, November 17-19, 1996, pp. 160-167.
- [30] R. A. Wakefield et al., "Transmission services costing framework," Electric Power Research Institute, Palo Alto, CA, EPRI Report TR-105121-V1 and V2, April 1995.
- [31] D. Curtice, "Costs of providing ancillary services from power plants," Electric Power Research Institute, Palo Alto, CA EPRI Report TR-107270-V1, March 1997.
- [32] P. J. Turner and R. J. Nicholls, "Cost of providing ancillary services from power plants: Reactive supply and voltage control," Electric Power Research Institute, Palo Alto, CA, EPRI Report TR-107270-V3, June 1997.
- [33] J. Barquín, D. Soler, O. Largo, G. Relación, and I. D. La Fuente, "On the cost of the reactive power generation and voltage support service," in *Proceedings of Bulk Power Systems Dynamics and Control IV- Restructuring*, Santorini, Greece, August 24-28, 1998.
- [34] J. Lamont and J. Fu, "Cost analysis of reactive power support," *IEEE Transaction on Power Systems*, vol. 14, no. 3, pp. 890-898, August 1999.
- [35] L. Kirsch and H. Singh, "Pricing ancillary electric power services," *Electricity Journal*, vol. 8, pp. 28-36, October 1995.
- [36] H. Singh and A. Papalexopoulos, "Competitive procurement of ancillary services by an independent system operator," *IEEE Transactions on Power Systems*, vol. 14, no. 2, pp. 498-504, May 1999.

- [37] D. Kirschen and G. Strbac, "Tracing active and reactive power between generators and loads," *IEEE Transactions on Power Systems*, vol. 14, no. 4, pp. 1312-1326, November 1999.
- [38] F. C. Schweppe, M. C. Caramanis, R. D. Tabors, and R.E. Bohn, *Spot Pricing of Electricity*. Boston: Kluwer Academic Publishers, 1988.
- [39] W. W. Hogan, "Contract networks for electric power transmission," *Journal of Regulatory Economics*, vol. 4, no. 3, pp. 211-242, September 1992.
- [40] T. Gedra, "On transmission congestion and pricing," *IEEE Transactions on Power Systems*, vol. 14, no. 1, pp. 241-248, February 1999.
- [41] F. F. Wu, P. Varaiya, P. Spiller and S. Oren, "Folk theorems on transmission access: Proofs and counterexamples," University of California Energy Institute, Berkeley, California, Technical Report PWP-23, 1994.
- [42] H. Chao and S. Peck, "A market mechanism for electric power transmission," *Journal of Regulatory Economics*, vol. 10, pp. 25-59, July 1996.
- [43] F. D. Galiana and M. Illic, "A mathematical framework for the analysis and management of power transactions under open access," *IEEE Transactions on Power Systems*, vol. 13, no. 2, pp. 539-548, May 1997.
- [44] A. K. David, "Dispatch methodologies for open access transmission systems," *IEEE Transactions on Power Systems*, vol. 13, no. 1, pp. 681-687, February 1998.
- [45] P. R. Gribik, G. A. Angelidis, and R. R. Kovacs, "Transmission access and pricing with multiple separate energy forward markets," *IEEE Transactions on Power Systems*, vol. 14, no. 3, pp. 865-876, August 1999.
- [46] H. Singh, S. Hao, and A. Papalexopoulos, "Transmission congestion management in competitive electricity markets," *IEEE Transactions on Power Systems*, vol. 13, no. 2, pp. 672-679, May 1998.
- [47] M. E. Northup and J. A. Rasmussen, "Electricity reform abroad and U.S. investment," United States Department of Energy – Energy Information Agency, October 1997, <http://www.eia.doe.gov/emeu/pgem/electric>.
- [48] Norwegian Electric Power Research Institute, "Deregulation of the Nordic power market: Implementation and experiences, 1991-1997," Technical Report, November 1997.
- [49] G. Gross, P. Correia, M. Amelin, and E. Bompard, "Transmission congestion management schemes: A comparative analysis under a unified framework," *IEEE Transactions on Power Systems*, (submitted for publication).

- [50] R. Rajaraman and F. Alvarado, "Inefficiencies of NERC's transmission loading relief procedures," *The Electricity Journal*, vol. 8, pp. 47-54, October 1998.
- [51] The California Power Exchange, <http://www.calpx.com>.
- [52] A. J. Wood and B. F. Wollenberg, *Power Generation, Operation & Control*. New York: John Wiley & Sons, 1984, pp. 75-77.
- [53] G. Gross and S. Tao, "A physical-flow-based approach to allocating transmission losses in a transaction framework", *IEEE Trans. on Power Systems*, (to appear in publication).
- [54] S. Tao and G. Gross, "Transmission Loss Compensation in Multiple Transaction Networks," *IEEE Trans. on Power Systems*, (to appear in publication).
- [55] B. Stott and J. L. Marinho, "Linear programming for power-system network security applications," *IEEE Transactions on Power Apparatus and Systems*, vol. PAS-98, no. 3, pp. 837-848, May/June 1979.
- [56] G. Chicco, G. Gross, and S. Tao, "Allocation of the reactive power support requirements in multi-transaction networks," *IEEE Transactions on Power Systems*, (submitted for publication).