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## VIETNAM ELECTRICITY

## **Questions for Discussion**

- How secure are the estimates for future growth? Would prices closer to long-term supply and distribution costs of about ten cents per kilowatt-hour change the growth rate? (If electricity prices rise relative to all prices by 10%, electricity demand drops 1-2% in the short term and 3-6% in the longer term. The opposite is also true – if electricity prices are stable and others rise, the relative cheapness of electric power will drive consumption higher.)
- 2. How fast would growth have to proceed to use up most of the capacity planned to be available in 2010? (Assume 4000 hours a year for hydro and oil/other capacity; and 6400 hours/year for coal and gas.) How much reserve capacity should there be, given the large amount of hydro capacity with uncertain dry-season production?
- 3. If demand were lower than projected, what is the best mix from EVN's point of view? How would EVN's choice of generating sources influence returns to IPP's?
- 4. What is a rational pricing stance for EVN to offer in negotiations given the costs of production for IPP's and the allowable electricity price that EVN can charge?
- 5. Should EVN encourage more hydroelectricity? (It is the cheapest source when available, according to the cost calculations, but may become increasingly unreliable in the dry season as Himalayan glaciers melt completely and dry season river flows fall.) Should it rather promote more thermal? (They are more reliably available and might help avoid blackouts in the dry season.) What is the best way to encourage one type of generation or another?
- 6. What are the best sources of thermal supply? Does your answer vary by region? Does you answer depend on the prices of different fuels? (That is, suppose the price of one fuel stayed in the medium scenario, but another fell to the low scenario.)
- 7. Suppose an IPP were offered a chance to sell electricity at five cents per kWh to EVN for up to 6500 hours a year with a minimum guaranty of 3000 hours. What kind of IPP (or generating plant) would find this possibly attractive? Should the price at which EVN is willing to buy electricity depend on long-term fuel costs?
- 8. Should EVN follow EGAT and negotiate separate charges for capital and interest from IPP's and then an additional charge for the cost of fuel? How would this be monitored to avoid overcharging for the fuel price?
- 9. What price structure would allow a price increase with the least amount of political resistance? Should there be a subsidized "lifeline" rate for households that use small amounts of electricity, but higher charges for heavier residential users? Should industrial electricity cost more or less than residential?

This case study was prepared by David Dapice, economist at Vietnam Program, Harvard Kennedy School. Fulbright Economics Teaching Program's cases are intended to serve as the basis for class discussion, and not to make policy recommendations.