

Assessing Electricity Markets: (Slightly) Outside the (Economics) Box

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Key Energy Issues for the Next Administration**

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Complications beyond price regressions

- **Political economy: High peak costs, prices**
 - Energy on-peak can be enormously expensive
 - Everyone gets to charge high price
 - Good economics; contentious politics
- **Behavioral economics (sort of): Residential reluctance to choose**
 - Multiple explanations of course
 - But revealed preference not to have to choose?
- **Institutional economics: Reliability vs. Competition?**
 - Non-storability + interconnection => central dispatch, control
 - Aug. 14, 2003: Who's to blame in an interconnected grid?
 - Best sign: We're arguing about prices, not blackouts (so far!)

Political intolerance for peak power prices?

- **Extreme peak costs can exceed average by 50-100**
 - **ONT: 15% of capacity during 125 peak hours, < 1.5% time**
- **Regulation: Peak cost buried in average price**
- **Markets: All capacity gets to sell at peak prices**
 - Economics sees this as a virtue
 - Data showing high prices with open markets may be good!
- **Massive short-run redistribution**
 - The unforeseen problem in California
 - High retail rates => retail re-regulation => distribution utility bankruptcy => market gone
- **Will entry fix the problem? Will public wait?**

Behavioral issues: Do consumers really want it?

- “What if they gave a [market] and nobody came? Life would ring the bells of Ecstasy and Forever be Itself again?”
 - paraphrase of quote attributed to Allen Ginsberg
- “If you like the 1040, you’ll love this.”
 - attributed to Doug Hale
- “Who let those people break up the phone company?”
 - Tim’s dad, whenever occasion allows (1984-present)
- “The best policy is to declare victory and leave”
 - Sen. George D. Aiken (R-VT), 1966, about the Viet Nam War

Alberta:

Comparative Electricity and Natural Gas Shopping Worksheet

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Name of energy supplier | |
| Contact name | |
| Phone number | |
| Energy supplier type (competitive retailer/regulated service provider) | |
| References of supplier (e.g., Existing customers, Better Business Bureau, credit references, etc.) | |
| Is there a basic service charge, even if I don't consume any electricity or natural gas? | Yes/ No |
| What is the fixed rate? | \$ |
| What is the variable rate? | \$ |
| What is the energy charge per kilowatt-hour (kWh) or per gigajoule (GJ) (Gas Cost Recovery Rate for Natural Gas) | \$/kWh or \$/GJ |
| Are there price breaks for different levels of consumption? | Yes No |
| Any built-in price increases? (Electricity Only) If yes, amount and when. | \$/kWh Date: |
| What are the retail service fees? | |
| Are there additional components to the energy charge? (Electricity Only) Unaccounted for energy Pool service charge Distribution loss charge | Yes No If Yes, explain: |
| Is there a premium for green power? (Electricity Only) | Yes No |
| Terms of the agreement? | |
| What does the clause concerning supply interruption indicate? | |
| Does the price depend on the time of year that I consume electricity or natural gas? | Yes No |
| Does the price depend on the time of day that I consume electricity? (Electricity Only) | Yes No |
| What is, if any, the switching fee or other up-front charges? | \$ |
| What are the exit provisions for cancelling the contract? | |
| Are there meter-reading fees? | Yes No |
| How frequently will I be billed? | |
| Can you bill me at a regular date of my choice? | Yes No |
| Am I buying anything other than electricity or natural gas? | Yes No |
| Are services available to help me use electricity or natural gas more efficiently? | Yes No |
| Who will inform my previous gas supplier about my new arrangement? | |
| Who do I call if I have questions or problems? Contact: Retailer number | |
| Is the price/supply tied to a specific electricity generation plant? (Electricity Only) | Yes No |
| What occurs in the event of an outage at that plant? (Electricity Only) | |

Disclaimer: The contents of this worksheet are only suggestions of possible considerations for consumers. This worksheet is not intended to be a comprehensive guide nor is it a substitute for your own judgment. The Government of Alberta makes no warranty or representation of any kind in respect of the contents of this worksheet and has no liability for any damages that may be caused to any person in connection with or arising out of the use of this worksheet.

Shopping in Pennsylvania

Shopping is easy



How to Shop for an Electric Generation Supplier:

1. Using the chart on the opposite page, enter the supplier's name on the top line and write your electric distribution company's price to compare on Line 1. This price is given in cents per kilowatt hour (kWh).
2. Call each electric generation supplier to find out what price they are offering for their electric generation, or refer to the Office of Consumer Advocate (OCA) pricing list. Write that price on Line 2. See the checklist on the back of this brochure for other questions to ask suppliers.
3. For you to save, the supplier's price must be lower than your present provider's price to compare. Subtract the new supplier price from the present price to compare and write that number on Line 3.
4. Write the average number of kilowatt-hours (kWh) your household uses in a month on Line 4. This can be found on your current electric bill.
5. Multiply Line 3 by Line 4 and put that number on Line 5.
6. Divide the subtotal by 100 to calculate your savings per month in dollars and cents (Line 6).
7. Some suppliers charge a monthly fee in addition to the charge for generation. If the supplier charges a fee, write the amount on Line 7. If the supplier does not charge a monthly fee, put a zero on Line 7.
8. Subtract the monthly fee from your savings per month (Line 7 from Line 6) and enter this on line 8. This will show you what your "Final Monthly Savings" may be. You can then easily compare prices like you would with any other product like gasoline and groceries.

A few inquiries

Questions to Ask Electric Generation Suppliers:



What is your price per kWh? (Enter price on Line 2 of Comparison Worksheet.)

Is your price fixed or does it depend on time of day or usage?

Can your price change? If it can change, when can it change and how will I be notified?

What is the length of the agreement?

Is there a cancellation fee?

Are there any other fees, such as a monthly service fee?
(Enter monthly fee on Line 7 of Comparison Worksheet.)

Will I receive one bill or two?

Is there a bonus for signing up with you?

Do you offer a choice of energy sources, such as renewable energy?

Do you offer any other services?

Contact name and phone number?

Customer service hours?

Monthly savings? (Enter amount from Line 8 of Comparison Worksheet.)

What should we be doing?

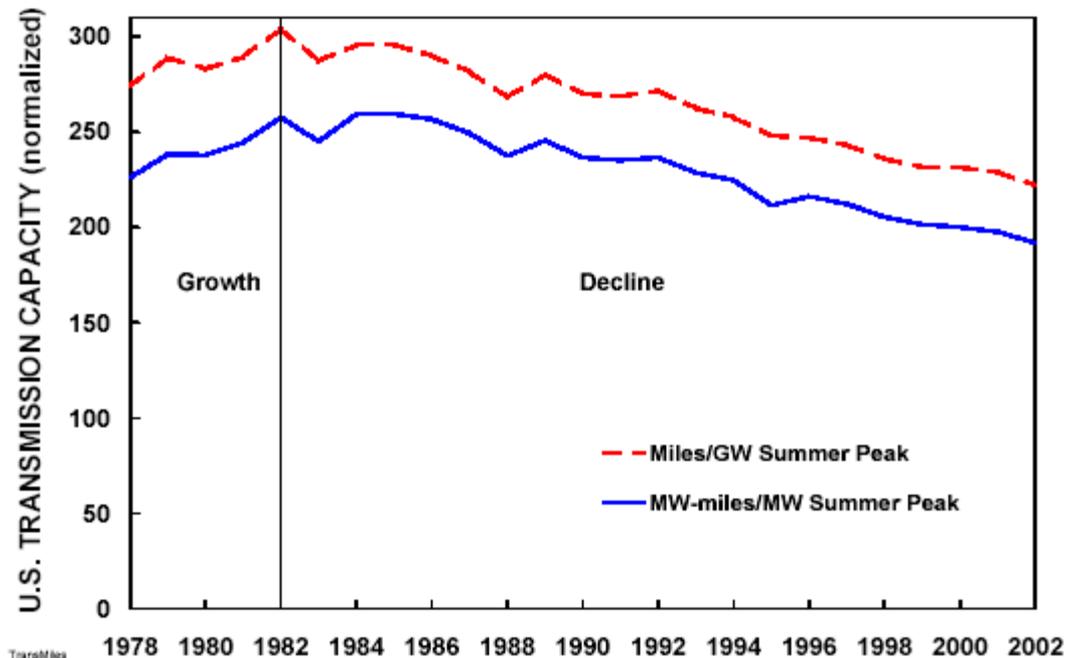
- **Residential consumers less interested in the hassle**
 - “Why are you making me choose”?
 - Very low take up rates despite education, unless large incentives/penalties
- **Forcing competition where it doesn't fit?**
 - Franchise competition to be “default provider”?
 - Universal service considerations
- **Success for industrial, commercial users**
 - MD – 2% residential, but
 - > 69% C&I, 94% “large customers”
- **Declare victory for 2/3 of the market ready to choose?**

Institutional econ.: reliability vs. competition

- **Crucial, fragile, interconnected:**
Electricity's unique combination
- **My reliability affects your reliability:**
 - The August 2003 blackout example
- **Valuing security**
 - What does a blackout cost?
 - Infinite investment in transmission, generation?
- **How much central control necessary?**
 - Just an air traffic controller?
 - Or complete management of dispatch and investment?

Claim: transmission capacity inadequate

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- Transmission growth rates below generation growth rates
- Grid not designed for interstate wholesale markets
- August 2003 blackout

Other evidence: investment trends, TLR growth

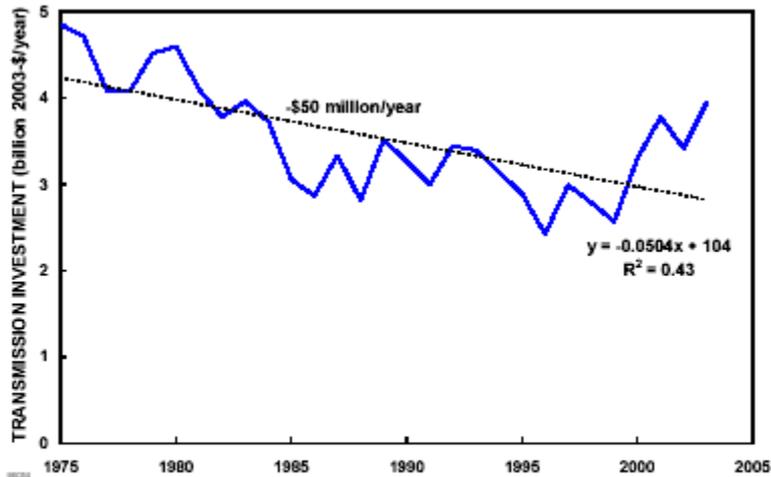
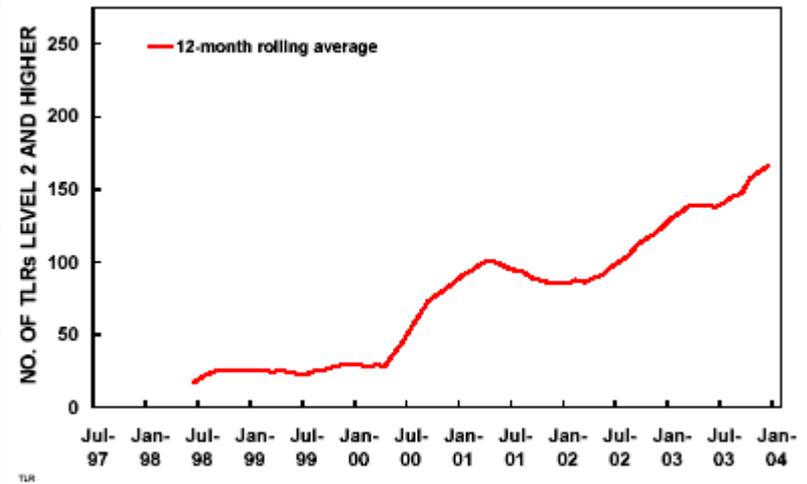


Fig. 3 Annual transmission investments by investor-owned utilities from 1975 through 2003.



Is “restructuring” the problem?

- Can’t simply deregulate: Monopolies in “wires”
- Incentives to evade wires regulation without separation from generation, marketing
 - Justify if not divestiture, the “I” in ISO:
 - Can antitrust come to the rescue? Not after *Trinko*
- But does separation/independence work?
 - Vary transmission price with generation use? Congestion
 - Timing of unit installation, expansions?
- Can we get the right investment?
 - Need to coordinate major generation, transmission investments?
 - What’s the point of competition if entry requires planning?

Good news, but stay vigilant

- **So far, reliability not threatened**
 - Despite trends regarding transmission
 - (Vague?) Accusations regarding post-emergency restoration
- **Arguing about price instead of blackouts a good sign**
 - Doesn't Lehman wish its profits had just fallen 25%?
- **What happens if there's another Aug. 2003 blackout?**
 - Claims of disaster in 2011-12 in MD
- **But policy not out of the woods**
- **The two pillars of Maryland electricity policy:**
 - (1) The price is too high
 - (2) People buy too much
 - Get me the aspirin!!

HAVE MARKETS MET THEIR MATCH?

Read more about it?

Generating the Benefits of Competition: Challenges and Opportunities in Opening Electricity Markets, Toronto: C. D. Howe Institute, Commentary 260 (April, 2008)

“Consumer Preference Not to Choose: Methodological and Policy Implications,” *Energy Policy* 35 (2007): 1616-27.

“Alleged Transmission Inadequacy: Is Restructuring the Cure or the Cause?” *Electricity Journal* 19, no. 4 (May 2006): 42-51.

“Making Electricity Markets Competitive: How Fast and By Whom,” in Portney, Paul and Richard Morgenstern (eds.), *New Approaches on Energy and the Environment: Policy Advice for the President* (Washington: Resources for the Future, 2004): 38-43.

“Market Failures in Real-Time Metering,” *Journal of Regulatory Economics* 26 (2004): 119-39.

“Electricity Capacity Requirements: Who Pays?” *Electricity Journal* 16, no. 8 (Oct. 2003): 11-22.

“Mismeasuring Electricity Market Power,” *Regulation* 25 (Spring, 2003): 60-65.

Alternating Currents: Electricity Markets and Public Policy (with Karen Palmer and Salvador Martinez), Washington, DC: Resources for the Future (2002).

The California Electricity Experience, 2000-2001: Education or Diversion? Washington, DC: Resources for the Future (2001).