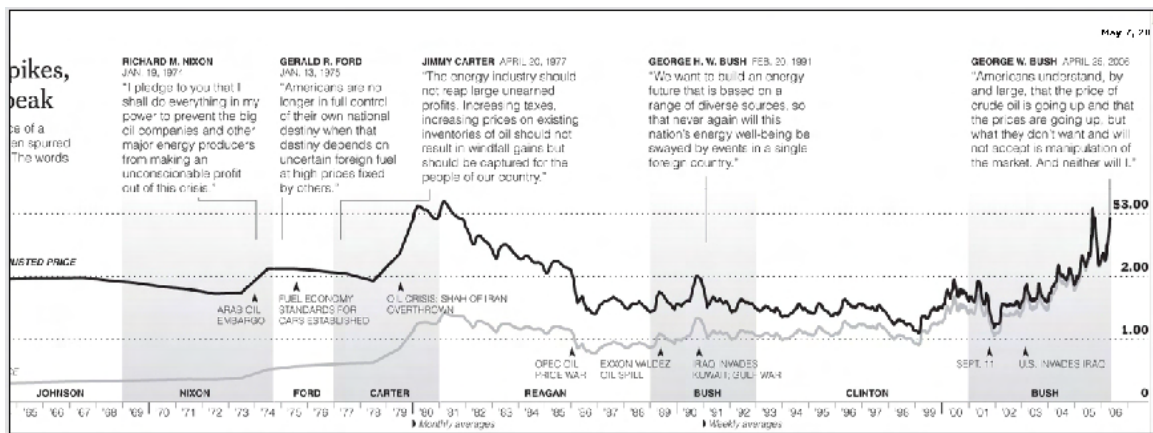




Utilities and Real Estate: What Can We Expect? What Can We Do? by Jack "Reyn" Hendrickson

Fixed investments require utilities simply to function, and energy prices are highly volatile. A building achieving better operating economies and/or a higher degree of security than competing buildings will enjoy significantly higher value.

Despite recent dramatic price run-ups, the broad, decades-long trend has been a *decline in the real price* of utilities. Supply has exceeded demand, with extraction now possible even in extreme conditions like Arctic seas. Despite the sharp OPEC-driven price spikes of 1974, 1979, 1981, 1991 and 2005, we forget that from 1992 thru 2004, real prices have declined and were far below those of the 70s, 60s, 50s, 40s and earlier. Only when gasoline prices reach \$3/gallon do we match the previous high (\$1.30/gallon in 1981, after inflation, matches \$3.00 of late). The chart below displays the 40-year trend:



The lowering real price, along with voracious, sustained worldwide growth, does cause demand for energy to surge. US, Japanese, Korean, Chinese, Indian, SE Asian, European economies-- even those of Latin America-- have quadrupled during the past century in real terms. So... **can the century-long energy price decline trend continue?** Between today and 2030 (just 24 years) the world will consume more oil than during the entire preceding 124 years. Ominous reports indicate Saudi fields are operating full tilt-- there is no longer any magical vast reservoir to open spigots from, but there is a real possibility of terrorist disruption at key points in the highly vulnerable extraction infrastructure.

Other building utilities like water/sewer or solid waste removal are also fundamentally energy-cost driven and suffer continuous regulatory pressures (environmental, etc) to boot. In addition, cash-strapped municipalities are aggressively jacking up tap fees and rates. Ann Arbor and certain surrounding townships recently quintupled tap fees.



Here is the prevailing utility situation for non-residential buildings:

- 1) No supply constriction foreseeable, but vulnerability to deliberate and/or accidental disruption is starkly evident – note terror threats and recall August 2003 blackout;
- 2) Price rises of great concern but confusion reigns as to what to do about it. Utility costs range between \$2.00 and \$3.00 per sq ft per year, running up more quickly than any other cost factor during 2004, 2005 and 2006. Utility costs represent almost 25% of a building's operating cost.
- 3) Regardless whether tenants or building owners get the utility bills, energy costs -- and savings from energy efficiency improvements-- directly affect the capitalized value of a project
- 4) Water/sewer used to be a forgotten area. But look at tap fees and rate per 1000 gallons now.

Smart building owners should consider the following steps:

- a) To limit damage from supply disruption, install properly-sized backup gas-fired electric generators. Fuel cell based co-generators will soon be available to consider also.
- b) The more energy efficient a building is, the lower is a tenant's occupancy cost, the higher the building's profitability. Therefore, audit and act on all available energy efficiency techniques. A suggestive sampling of techniques ---and the attendant benefits--- would be:
 - Relamp & reballast fluorescent fixtures to T-8 bulbs with electronic/daylight dimmable ballasts. Payback vs T-12 fixtures: less than 1 year;
 - Replace all incandescent bulbs with compact fluorescents. Payback: 8 months;
 - Relamp mercury, sodium, metal halide fixtures with 10-25% lower watt bulbs. Payback: 15 months;
 - Magnetically seal filter housings & caulk all pinhole duct leaks. Payback: 3 months;
 - Plug in "watt stoppers" to reduce plug loads from computers & copiers. Payback: 10 months;
 - Install variable frequency drives in fans, HVAC blower motors. Payback: 2 years;
 - Install voltage stabilizers in lighting circuits. Payback: 2 years;
 - Go to quiet vacuum daylight hour janitorial, eliminating need for night lighting.



- c) Take advantage of available tax credits and deductions. Purchases above all qualify, further reducing payback time and ramping up real estate value.
- d) Benchmark your project against 2 standards – i) Best Practices and ii) the Average. Obviously, matching Best Practice improves profitability. Not so obviously, being able to demonstrate to a lender, a buyer and to a tenant how much better you are than the average, means you get a bigger loan, a bigger price, a bigger rent/sqft and a higher occupancy.