

2003/What To Look For in 2004

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2003

General:

- The war on terrorism brought some interesting developments: the United Nations asserted it's claim on global irrelevance, long-standing international relationships were redefined (but we got lots of new French jokes), two wars were waged and won, a despot was captured hiding like a rat in a hole while exhorting his followers to death before dishonor.
- There was a resurgence in the U. S. economy and the stock markets.
- All the crooks weren't in the energy industry, as Wall street had it's scandals, including mutual funds stealing from widows and orphans by after hours trading.
- We finally got the Colorado River imbroglio solved but it may be no avail – the SW drought may mean we can't get any of the extra water. The situation is, as Adan Ortega, Jr. of the Metropolitan Water Districts of Southern California so eloquently stated, "It was also projected a 1 percent probability that we would be where we are today and here we are."

Energy-National:

- The US experienced an extraordinary blackout, the largest in it's history. Europe also experienced several widespread blackouts, as well as China, highlighting the importance of a robust transmission grid and implementation of corrective measures.
- The energy act failed (for now) to pass, dying due to MTBE exclusions and truckloads of pork. The US has to make do with the status quo and higher imports for the next year, until another run is made at a national energy policy.
- The implosion of the merchant plant bubble lead to multiple bankruptcies, but those firms are still in business.
- The deregulation revolution stalled.
- There was no introduction of FERC's SMD.
- The carbon trading of the displacement of coal did not lead to significantly more green power development.
- Important tax incentives for renewables lapsed and the political drive to assist or force greening of power production stalled.
- For a while, it seemed like a new energy trading scandal hit the headlines every day. From Death Star to Get Shorty, it looked like the energy trading industry was being run from San Quentin, where many of these guys and gals may end up.
- Natural gas prices skyrocketed last winter/spring, and are at record levels again this winter.

Energy-California:

- We had a governor who decided to help us solve the energy crisis by saddling us with long term, above market contracts. He signed his replacement papers by tripling the car tax. An action hero replaced him, immediately repealing the car tax and the illegal immigrants drivers licenses. The new Governor's platform includes the restoration of retail choice, wholesale competition, more renewable generation, and major changes in regulation. His first Public Utilities Commission vacancy appointment does not come until 2005.
- Edison emerged from de facto bankruptcy, paying off its debt and reducing its retail rates.
- PG&E finally got a bankruptcy plan approved by the CPUC and Bankruptcy Court, saddling it's customers with high electricity rates for the next nine years, while resulting in handsome bonuses for its execs.
- The utilities are back in the resource procurement business. The CPUC adopted short-term objectives, but has delayed establishing long-term requirements.

2004**Natural gas**

We have a natural gas problem, not enough of it for the demand. It fuels our key industries, including the chemical industry, the farming industry (which is exposed to much higher costs for fertilizer), paper, metal refining and steel, as well as being the fuel of choice for new power plant generation and residential and commercial heating.

There is plenty of natural gas out there, but it is in inaccessible areas (e.g., Alaska North Slope) and will take years to get here (LNG). There are serious questions regarding our ability to simultaneously meet the needs of the power sector and residential and commercial users, and whether natural gas supplies will be adequate to fully utilize the existing fleet of gas-fired plants as well as all the new proposed facilities.

Conclusion: Expect continued price volatility and high natural gas prices in 2004. With natural gas prices high, expect the wholesale price of electricity in Californian to remain high.

Ultimately, the price of natural gas should moderate with the growth of LNG. The first LNG operations are expected in California in 2006/2007. But at what price? Over the long term, says Sempra's CEO Baum, "we see the price ranging round \$3.50.... That's a level that will support investment in LNG systems."

Procurement:

With the utilities back in the procurement business we can all relax, right? Not quite yet. There are two big issues of contention: renewables and reserve margins.

There is a state goal of 20% of the states electricity coming from renewables by 2017. The Governor wants this accelerated to 2010. The problem is (in addition to the cost of renewables), how are the necessary transmission upgrades going to be

paid for? For most facilities the generator pays for the transmission upgrades. This works when you're installing a 1,000 megawatt power plant, but when you're putting in 20 megawatt wind generation facility you're not going to pay for the cost of all the upgrades to the system.

The second big issue is reserve margins – how much extra capacity above expected peak demand should the utility should contract for as reliability insurance. The CPUC wants 15-17% reserve margins. However, this issue has bogged down in the battle over direct access. The issue is simple – if the utilities contract for 17% reserves over their planned peak demand and you decide to leave the utility system with direct access, you'll have to pay an exit fee for the capacity they bought for you that you're not using because someone else is supplying your electricity. Add a reserve margin exit fee to all the other direct access fees (historic procurement, state contracts, etc.) and you see why the energy service providers are fighting this with all their strength.

The CPUC's decision on Mountainview is also giving direct access providers heartburn. In that decision, SCE was allowed to continue with the construction of that power plant, but got a guarantee that anyone who left their system would continue to be responsible for their costs for the development of that power plant.

Conclusion: Expect fights to continue in this area, what is the responsibility of the generators, utilities, and direct access providers to build/buy the appropriate type of generation, how much they should purchase/buy as insurance, and who has to pay for it.

Municipalization

High utility costs and dissatisfaction with the investor owned utility service, combined with regulatory incentives for municipalization, will result in increasing attempts to municipalize investor owned utility customers by cities, counties, and water agencies. There may be compromises reached, such as Turlock did, that allow limited municipalization.

Conclusion: Look for increasing attempts to municipalize IOU customers

Distributed Generation

Distributed generation (small local generation facilities) and self generation continues to be a hot topic as far as regulation is concerned. It is one of the cornerstones of the new California Energy Plan, but there are still a number disincentives, particularly interconnection requirements, to the widespread development of this resource. Expect the CPUC to open a new proceeding that deals exclusively with distributed generation in 2004.

Conclusion: Assess your system for the potential for small, local generation facilities. There should be additional incentives in 2004 for this type of resource development, and some easing or standardization of interconnection requirements.

Rates

Well, we were continued to be paying off the over-market long term contracts for the next many years. And PG&E customers can be expected to be paying above market rates for the next nine years to pay off the bankruptcy. Add high natural gas prices and don't expect much relief soon.

The real change will be in what rates are available to you. There are a number of voluntary rates currently available (such as Critical Peak Pricing) but the regulators becoming concerned that not many customers are signing up for them. We were able to deflect the call to make these rates mandatory but I'm not sure for how long. One of the cornerstones of the California Strategic Energy Plan is to make customers pay for the actual costs of their electricity (read real time pricing). The plan has us saving 25% of our peak demand with real time pricing. Once an hourly market returns (with the ISO MD02 implementation, projected to start in February) you can expect to see more calls for mandatory real time pricing for all.

Conclusion: Real time pricing is coming. I'd avail myself to the analysis assistance that is currently available before you are faced with these varying prices for electricity: <http://www.energy.ca.gov/demandresponse/documents/index.html>

Energy efficiency

Energy efficiency is another one of the hot issues, and the California Energy Plan has us saving our way to the future. The CPUC approved almost \$1 billion in conservation/energy efficiency spending. There are now more funding opportunities, part of the CPUC delivery mechanism allocates a lot of this money to community aggregators instead of the utility.

Conclusion: There is still a lot of money available for retrofits of existing systems, or energy efficiency improvements in proposed new systems or additions. Avail yourself to this money.

Generation/retirements

The ISO says we'll make it though 2004, provided the economy doesn't recover and start demanding more electricity, and we don't face a drought, and a bunch of existing powerplants don't retire. However, generators are shutting down the old plants in droves, due to their lack of use, and the high cost of complying with air pollution requirements. And almost all of the new powerplants are not being built – the marketers are struggling with bankruptcy and other financial problems, and the California utilities are just becoming creditworthy but still don't have approval to build powerplants (Mountainview is the exception). The state agency that was supposed to build powerplants - the California Power Authority – has no money and is targeted for dismantling by the new governor.

Without new powerplants how are we going to make it? That leaves us with demand side options – conservation, energy efficiency, real time pricing, etc., as our primary mechanism to meet electricity demand. The last time we did this as state policy was in the late 1990's and you remember what happened in 2000/2001. It wasn't pretty.

Conclusion: Keep an eye on the weather, and the available stock of generating plants.

General Conclusion

As the philosopher said – know thyself. There are many things out of your control, but if you know what your system can do, in terms of flexibility, and what options are available to you (storage, self generation, ,load shifting, etc.) you'll be in a much better position to react to some of the events of the upcoming year. There is a lot of money currently available to pay for assessments of your system and energy efficiency. I'd avail myself to them now, before being faced with making a decision without having the necessary information available.

The California system load factor (peak demand divided by average demand) has been decreasing over that last 15 years, which simply means that our demand is getting more "peaked". This means that your ability to curtail or shift load for short periods of time will become increasingly valuable, particularly as generation becomes tight. Use some of the money currently available to evaluate what you do with your system. It'll pay off big in the future.