THE FRIDAY BURRITO Vol. XIV #39 December 9, 2011 Markets? What Markets? Did You See a Market?

"It is often easier to ask for forgiveness than to ask for permission."

Grace Murray Hopper

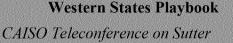
"Health nuts are going to feel stupid someday, lying in hospitals dying of nothing." Redd Foxx



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I was reminded this week that the months of August and December are always the busiest rather than the quietist for those of us in the regulatory part of the biz. In August and

December, people are typically awaiting a vacation of some sort, yet in either of those two months some unanticipated bomb is dropped on the market participants such as a major decision or an extremely important workshop. For example, in December of 2000 when the Pacific Northwest experienced a cold snap in the early part of the month, much of California's power generation was exported into the Pacific Northwest or rather what was left of it due to exhausted environmental allowances and normal seasonal O&M. Because the California forward energy market was a daily spot market whereby buyers and sellers entered day-ahead bids and asks, there wasn't any resource adequacy requirement longer than a day. Electricity prices skyrocketed and the California energy



Energy Center Risk of Retirement: Today from 1:00 p.m. to 3:00 p.m. (Pacific Time). Dial-in Number: (877) 777-1967. No passcode needed. Written comments to <u>ppettingill@caiso.com</u> are due by close of business on December 16.

FERC Technical Conference on CAISO Suspension of Convergence Bidding at Inter-Ties: Thursday, February 2, 2012 at FERC in Washington, D.C.

crisis was off and running. It's still active in some people's minds. And so it goes each year up to the present. This December is following suit because there have been a few surprises that I write about below.

For example, last week, just as the month started, a Bay Area renewable stalwart company, SunPower, a pioneer in the business, reduced its work force ten percent across the board. The only reason I found out this happened was because a close friend of mine was caught in the cost-cutting crossfire. He was shocked by the news that he wasn't going to be working for his employer anymore. Apparently, SunPower's earnings have been sliding downward due to increased competitive pressure from PV panels manufactured in China. Solar developers using domestically manufactured PV panels simply can't compete with the prices quoted by developers using equipment imported from Asia. And SunPower isn't alone. There are many developers who have a supply chain agreement tied to domestic manufacturers and are experiencing the same decline in business—the competitive RFOs are squeezing the high-cost providers just as one would expect. I can see more job losses for marketing and regulatory affairs professionals, while at the same time there will be increases in construction employment for a few years to build oodles of renewable energy projects that have been contracted, permitted, and approved by the Cappuccino. A flurry of mergers and acquisitions can't be far behind. Financially strong renewable energy companies will buy the weaker ones for the latter's pipeline of projects. So much for the gilded lily of green jobs in California.

Let's discuss transmission access and (renewable) generation interconnection to the CAISO grid. I attended a CAISO workshop last week on the marriage of those two issues—otherwise referred to as TPP-GIP and pronounced, "tip gyp." Transmission planning and generation interconnection are complex enough on their own. Combined, it leads to a problem that is intractable as I have discussed in previous Burritos. There are too many MWs of renewable projects vying for transmission capacity yet how does the transmission planner know which project will see completion and how to allocate needed transmission capacity? However, thinking back on the CAISO workshop, the CAISO team wisely split the fifty or so attendees into five groups to stimulate discussion on the problem of allocating scarce transmission capacity to thousands and thousands of MWs of prospective renewable generators located at various renewable energy zones around California. Hell, renewable imports into California were given scant attention. The instate problem is hard enough.

The breakout group in which I participated was rolling along, and suddenly one person representing the interests of a renewable developer said that her client needed firm deliverability (as opposed to as-available transmission capacity) in order to get the resource adequacy payment in its contract with the buyer (read: utility). I said that RA is selling for about \$1/kW-month for system RA and \$2 to \$3 for local area RA. What's the big deal, I wondered? It turns out California's investor-owned utilities (I think they meant my good friends at SCE, but I'm not sure) have been telling the developers during contract negotiations that unless the project has firm deliverability it can't be awarded the RA benefit, which is about \$30/MWh! I was dumbstruck when I heard it. It couldn't be. In order to convert the \$ per kW-month to a \$ per MWh figure it's simply a matter of converting the \$/kW-month to an annual number (doh! times 12), add three zeroes to

What we believe...

- 1) Competition yields lower electricity rates.
- 2) Stable and transparent rules and regulations promote private investment.
- Private investors, rather than utilities, will spend money on new power plants and transmission facilities if they can earn a return that is balanced with the risks.
- Private sector investment results in lower average prices without risking consumers' money.

denominate the answer in \$ per MW-year, and divide that number by the plant capacity factor times 8,760 (i.e., the number of hours in a year). Hence, \$1/kW-month for a renewable energy project with a 30% capacity factor yields an RA value of \$4.50/MWh. The only way I can get to \$30/MWh without lowering the capacity factor is to boost the RA value from \$1/kWmonth to \$6.50/kW-month, or so.

Geez, what the hell are the utilities telling these developers? If you don't get firm deliverability to your project, then your contract energy price will be reduced by \$30/MWh? This situation forces the project developers to request firm transmission

service from the CAISO because as I was told, "The renewable energy project economics don't work without the RA payment." If the renewable developer pays for the network

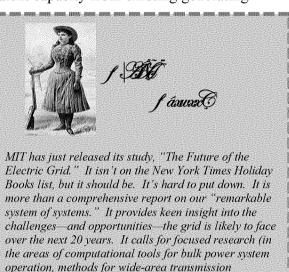
upgrades to be fully deliverable and gets paid back over five years through the CAISO transmission access charge, then in effect the renewable project is getting a \$30/MWh boost and foisting the cost of creating that benefit on the CAISO transmission customers. Yet, the benefit to the utility is also enormous because the utility is a monopsony buyer of the energy and a monopoly provider of the transmission service. There's no way the renewable developer can win. There's no way California consumers can win. Furthermore, how is it the CPUC can let this happen? How can it let the utility place an RA premium at \$6.50/kW-month when we all know that the same entity is currently paying existing thermal generators for RA between \$1 and \$2?

Hello, is anyone home? This is inefficient—investment in transmission for an attribute at price multiples higher than that paid for equivalent capacity from existing generating

resources. I don't recall looking at any calculation to support the RA premium for renewable generators. I don't recall an Advice Letter offering such. Moreover, I don't think the CPUC has ever reviewed or approved the RA premium, except tacitly by approving the renewable energy contracts. Can anyone tell me differently?

Of course, the full-deliverability designation reduces a perception of potential operating curtailment and thus makes project financing easier. But I don't think that second reason on its own forces a renewable project to be fully deliverable. Another unfortunate outcome of this cluster you-know-what is that the CAISO, at least to date, has been doing transmission planning and generation interconnection using the very conservative standard for "full deliverable capacity." It is the CAISO's conservative assumptions that are making the network upgrades and therefore the cluster/phase deposits placed upon the renewable projects so expensive and unattainable at this point.

Speaking of renewable energy and curtailments, FERC made a ruling this week in favor of a group of wind energy companies led by Iberdrola Renewables Inc. who have wind farms in BPA's footprint and challenged BPA's



operation, methods for wide-area transmission planning, cyber-attack response, and consumer response to real-time pricing), noting that the utility industry devotes little to R&D. It recognizes that the U.S. lacks a comprehensive, shared vision of electric system structure and function, which operates under "fragmented and often inconsistent" policies. Taking a stab at the issue, the study makes 20 policy recommendations, most of which are noteworthy and several are bold, including calling for the recovery of utilities' fixed network costs through charges that do not vary with consumption; enhancing nondiscriminatory open access to the grid, which it laments is "still a work in progress"; and giving FERC siting authority for lines that cross state or federal land boundaries. But my favorite one is the call for "regulatory innovations" to alleviate "the tendency of traditional regulatory systems to encourage excessively conservative behavior [which] is likely to become more and more expensive over time if increasingly attractive opportunities to enhance efficiency and reduce cost through innovation are not exploited." This book is on my holiday giving list.

environmental curtailment protocol. I wrote about the issue this year in the June 10 Burrito:

§ "In order to assure reliable energy delivery when generation exceeds loads, the difference must be exported, reduced or turned off. As a last resort, BPA issued

its new Environmental Redispatch interim policy to temporarily limit energy generation."

- S "The Northwest energy market is a bilateral market, with most of the trading done at the Mid-Columbia trading hub and the California-Oregon border. Under certain conditions, typically when electricity loads are light and there is an over-abundance of generation, the Northwest electricity market can be susceptible to negative prices."
- § "BPA will not pay negative prices during times when BPA needs to generate to comply with its environmental responsibilities. The payment of negative prices could result in opportunities to distort the market and presents an unreasonable cost shift from those generators that can operate profitably during times of negative prices to BPA's fish and wildlife program and/or to BPA ratepayers, and jeopardizes BPA's ability to comply with its statutory responsibilities, including cost recovery. To date, BPA has not been required to pay negative prices during these situations."

A week later I wrote about the issue again: "The crux of the matter is BPA's election to curtail renewable energy output because of economics rather than reliability. (i.e., no negative energy prices, which means all suppliers, including the federal hydro system, pay for producing energy, and those costs would get passed on to BPA's customers.)"

Finally, the next Burrito edition after I wrote the above, Kevin Lynch corrected me and added some context: "The Bonneville Policy most assuredly does NOT pit environmental mitigation against private enterprise – it pits a federal agency's commercial interests against the commercial interests of others in the market. In the month that has followed



issuance of the BPA Policy, the agency has repeatedly curtailed wind generators not to get into compliance with an environmental or reliability requirement but because power prices have ventured to negative territory. Bonneville has chosen to use its transmission system to benefit its merchant power business at the expense of power competitors. This behavior is antithetical to functioning power markets and would not be tolerated for a minute anywhere else in the United States. FERC has the authority to put a stop to this anticompetitive behavior in the west; the filing asks the Commission to do so."

The twist in all of this is that BPA is

not jurisdictional to FERC with respect to its electricity rates. As a federal power marketing agency, BPA is regulated by the DOE. On the other hand, BPA does provide transmission service to third parties, such as transmission interconnection services with wind farms that export power to, say, California, and as such BPA's transmission access is under FERC authority. As stated in the well-written order, "The Commission ... has the authority under section 211A of the FPA to require Bonneville ... to file a tariff providing

for transmission service on terms and conditions that are comparable to those under which Bonneville provides to itself and that are not unduly discriminatory or preferential."

I rarely recommend a FERC Order as a good read, but I'll change my tune for this one. The 38-page order is as clean as a whistle and easy to digest. Let's see if FERC's Order withstands a federal court challenge that I am sure is in the offing.

Erin Kenney sent me a great recipe that conforms with my "no starch and no sugar" diet otherwise known as "no protein left behind" diet. I'll share that with you below. Also, I received several recipes from Angie O'Connor, one of which I'll share today, the sausage stuffed mushrooms, as well as her other two recipes in future editions of the Burrito.

Erin's recipe is taken from the NYT minimalist chef, Mark Bittman: flatbread made out of chickpea flour (*Socca*). She said it must be eaten fresh out of the oven when it's hot! And that Bob's Red Mill makes chickpea flour that you can get at most regular grocery stores or you can find it at an Indian market.

Heat oven to 450 degrees. Put a well-seasoned or nonstick or cast-iron skillet in oven. Sift 1 cup of chickpea flour into a bowl; add a tsp. each of salt and pepper; then slowly add 1 cup lukewarm water. Whisk the batter to eliminate lumps. Stir in 2 tbsp. of olive oil. Cover, and let the mixture sit while oven heats, or as long as 12 hours. The batter should be about the consistency of heavy cream.

Stir in $\frac{1}{2}$ of a large onion thinly sliced into the batter along with 1 tbsp. of fresh rosemary leaves. Pour 2 tbsp. of oil into heated pan and swirl to cover the pan evenly. Pour in the batter and then bake for 12 to 15 minutes or until the pancake is firm and edges set. Fire up your broiler, and while that is getting to temperature, brush the top of the *Socca* pancake with 1 or 2 tbsp. of oil if it looks dry.

Set the *Socca* a few inches below the broiler for a few minutes, just long enough to brown it spottily. Cut it into wedges, and serve hot, or at least warm.

I'm not sure if sausage stuffed mushrooms go with *Socca*, but maybe it can. Anyway, Angie O'Connor wrote about this dish that, "This is a perfect dish for anyone going to a holiday

What we believe (cont.) ...

- 5) However, when IOUs do the investing, the risks to them are minimal or non-existent because ratepayers cover all of the costs.
- 6) Overcapacity lowers electricity spot market prices; yet retail rates can increase in this case due to full cost-ofservice regulation.
- 7) Markets work best when there are many buyers and sellers.
- At-risk money will be put to work and attract new investment where markets exist that are legitimate and yield credible prices.

gathering and asked to bring something. Nice and easy because it can be done the day before. This is a hearty side dish that goes nicely with pretty much everything." So, I suppose *Socca* is included in the definition of "everything."

Remove the stems from 16 extra large white mushrooms, chop fine the stems and set aside for the filling. Toss the mushroom caps with $2\frac{1}{2}$ tbsp. of Marsala wine and 3 tbsp. of olive oil in a shallow bowl.

In a medium sized pan, heat 2 tbsp. of olive oil adding $\frac{3}{4}$ lb. of sweet Italian sausage removed from the casing and crumbling it with a spoon as it cooks for 8-10 minutes. Stir frequently until completely browned. Add the chopped mushroom stems and cook for another few minutes, then stir in 6 minced scallions (white and green parts) and 4 or more garlic cloves minced, and toss that around for another 2-3 minutes. Stir in 2/3 cup of Panko breadcrumbs and combine evenly with all the other ingredients. Finally swirl in 5 oz. of Italian mascarpone cheese and continue cooking until the cheese has melted. Remove the pan from the heat and add $2\frac{1}{2}$ tbsp. of freshly chopped parsley and 1/3 cup of freshly grated Parmesan cheese. Season with salt and pepper to taste.

Fill each mushroom cap generously with the sausage mixture and arrange the mushrooms in a baking dish large enough so the mushrooms are close together. Bake at 350° for 50 minutes until the stuffing is browned and crusty.

Angie makes this dish the night before by half cooking the mushrooms and then refrigerating.

Let the Socca and stuffed mushroom season begin.

Here's your stuffing for the week:

>>> Things in the People's Republic of California @@@ Latest Evidence that CAISO and RA Markets are Severely Broke

>>> Shout Outs

>>> Odds & Ends (!)

>>> Things in the People's Republic of California @@@ Latest Evidence that CAISO and RA Markets are Severely Broke n

The CAISO received a request from Calpine Corporation for a capacity procurement

 and, what we should do: 1. Believe in ourselves. 2. Encourage creation of independent, multi-state regional transmission organizations that coordinate policies with respective state utility commissions. 	mechanism (CPM) designation of the Sutter Energy Center (SEC). This request is recognized in the CAISO tariff (i.e., Risk of Retirement). The CAISO concluded that the facility is needed for reliability and its operational flexibility by the end of 2017. The CAISO prepared a report ¹ that I review below in which it describes the basis and need for using the CPM designation in this matter.
 Support rules for resource adequacy that apply uniformly among all load- serving entities. 	Before I do that, I want to point out a few things. The most obvious is that a California power plant that is slightly over 10-years old shouldn't be facing the risk of retirement. However, the revenue stream from energy and Resource

Adequacy (RA), as I noted in my rant above regarding the RA payment utilities make to existing thermal generators, is so ridiculously scant and insufficient that it is only a

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¹<u>http://www.caiso.com/Documents/Basis_Need_CapacityProcurementMechanismDesignation_SutterEnergy</u> <u>Center.pdf</u>

wonder that so few California thermal generators are suffering the same economic problems. In the case of SEC, the plant was not an RA resource in 2012. The plant economics depended solely on hourly energy payments. Clearly, these alone have been insufficient to keep the plant alive.

There is a growing need for thermal power plants that can flexibly respond not only to load changes but also the critical changes in variable energy generation. As the quantity of renewable energy projects continues to grow, so will the CAISO's need for flexible thermal ramping. Otherwise, the grid will risk shortages and possible blackouts.

But the anemic economic payment stream didn't develop overnight. It has been festering for years. Generators have been asking both the CPUC and the CAISO for higher payments that approximate the cost of new entry. Marketers and power sellers have complained endlessly about the suppressed LMPs due to excessive out-of-market calls that eliminate the most expensive units from the pricing stack. Utilities and consumers groups have fought higher prices for both capacity and energy tooth-and-nail. The powers that be have sided with the latter parties. Now that the damage has been extracted, the risk of retirements is very real for SEC and other generation asset owners may follow suit.

One quick note about the CPM. The current payment mechanism is \$55/kW-year paid monthly. When a unit is designated under CPM, its energy payments do not change. It remains based on the CAISO published hourly LMP. There is no extraction for above-cost energy rents. There is no operating cost recovery. The CPM simply pays 1/12 of the

approved annual capacity amount each month. Further, the unit under this designation becomes a must-run unit as are all RA units on the CAISO grid.

Maybe it's the case, sad as it is, that no one does anything proactive to fix a problem unless there is a serious move to retire an active power plant. SEC isn't the first retirement to occur on the CAISO grid. Take the Long Beach facility, retired back in 2004 only to be picked up again in a long-term contract with SCE a year after the

...and, what we should do (cont.):

- 4. Enforce competitive solicitations by utilities for purchasing either thermal or renewable power.
- 5. Support choice among retail electricity customers.
- 6. Lobby for core/non-core split of retail customers.
- 7. Advocate against policies that limit, through bid mitigation, merchant returns on investment that are utility-like returns.

facility shut down. Also, AES' Huntington 3 & 4 units were recently sold to Mission Energy with the intention of being retired so that Mission's Walnut thermal project can use the emission credits for its environmental compliance.

However, aside from those examples, the clearest fault in all of this is that California has markets that aren't markets and don't reflect the full value of thermal capacity. What greater evidence is necessary than the smoking gun of the sudden SEC CPM designation? Instant relief is needed for the SEC but far more is required to repair what ails California. A complete makeover of the RA program is necessary. An RA program that extends more than one year out. An RA program that allows for competitive procurement. And an RA program that is transparent, whether the RA agreements are bilaterally executed or centrally cleared.

To the CAISO's credit, its market notice stated, "The CAISO will ask the Federal Energy Regulatory Commission for a tariff waiver that would enable the Sutter plant to receive a

CPM designation. However, the CAISO commits to initiating a stakeholder process in 2012 that will develop a longer-term solution." As one market participant said to me, "there's reason to be optimistic." Good. Optimism with regard to California's power markets has been running thin of late.

The CAISO report describes the problem well. It quickly identifies the tariff issue surrounding SEC, notably that the SEC isn't needed for reliability purposes until 2017 or 2018. Currently the tariff has as one of the requirements for designating a plant under CPM that "the resource will be needed for reliability purposes, either for its locational or operational characteristics, by the end of the calendar year following the current RA Compliance Year." Therefore, the CAISO will approach FERC seeking a waiver in the SEC case to analyze its need beyond the one-year horizon. Whether SEC will be granted a multi-year CPM designation is not in play. According to the report, "After 2012, the CAISO expects that continued operation of the Sutter plant and any other resources with similar issues will be assessed under the longer-term capacity procurement mechanism to be developed." The eventual resolution of this issue will shift to the CPUC.

Here then is the punch line: "The CAISO has determined that there is no additional new capacity with needed flexibility projected to come online in time to meet the identified need. In the production simulation, Sutter was observed to have a 69.91% capacity factor. Sutter was observed to provide energy, operating reserves and flexibility in the 2017/2018 production simulation. The retirement of existing capacity that embodies the required flexible characteristics would pose a significant risk to reliability.

"Calpine explained that if the Sutter plant is retired in 2012, the plant may not return to commercial operations in future years because, under Environmental Protection Agency policy, the plant would likely need to undergo New Source Review and obtain a new air quality permit. Even if the Sutter plant could meet then-current best available control technology (BACT) requirements and otherwise satisfy all of the new air quality permitting requirements that have gone into effect since the plant was first permitted, the permitting process is often lengthy and subject to an extended and unpredictable appeals process. Further, Calpine stated that future requirements to meet then-current BACT could require substantial new investments, making the return of the Sutter plant to service uneconomic."

It's time for California to get these so-called energy markets to be real markets, not fictional ones. And it's time for more forward-looking capacity procurement that eliminates the under-priced heat-rate call options (or free if the thermal plant isn't under an RA agreement).

>>> Shout Outs

Just a few letters to balance out the week. Good thing, too. This edition of the Burrito is getting very long.

Jesus Arredondo wrote about the guards at the Tomb of the Unknowns in Arlington Cemetery. "Thanks for the story on the Tomb of the Unknown Soldier. When I was in the Army, I struck up a friendship with a guy named Jeff Davis. Lieutenant Davis would later serve as Relief Commander (3rd Relief) at the Tomb. Notwithstanding the many awards and tabs that he earned -- Ranger, Airborne and Special Forces tabs, 8 medals and 6 badges, Army Avaitor wings -- the one he was most proud of was his 'Tomb Guard Identification Badge.'

"A little more history... The Army was given the honor of guarding the Tomb of the Unknown Soldier in 1926, as the Army is the oldest of the military services. Prior to 1926, there were no military guards posted at the Tomb. Several Army "Units" have been rotated to guard the Tomb, but since 1948, all the units have come from the 1st Battalion, 3rd US Infantry (right now it's H Company).

"In 2003, when Hurricane Isabelle (Category 5 storm) hit the East Coast, all of DC hunkered down for 2 days... well, all except the guards at the Tomb. While they were granted permission to stand down and suspend duties, they declined. For them, as my friend Jeff would have told you, 'guarding the Tomb is not just an assignment, it is the highest honor that can be afforded to a soldier.'

"As for my friend, 1st Lt. Jeff Davis, he was killed during a training exercise 1998 at our old stomping ground, Fort Bragg (NC) and is buried in Section 54, at Arlington. He was buried in his Tomb Honor Guard uniform."

Thanks, Jesus.

Jack Ellis scribed a thought (or two or three) regarding the CAISO's CPM designation that I wrote about above. "I'm very disappointed with CAISO's justification for a CPM designation at Calpine's Sutter plant, even if I'm not at all surprised. At best it's based on a mistaken interpretation of studies run for the CPUC's Long-Term Procurement Proceeding that rely on assumptions with obvious flaws and a study methodology that tends to overstate the need for new resources. The CAISO staff deserves a great deal of credit for the effort it is investigating in conjunction with a group of stakeholders to understand the flexibility demands of the 33% RPS goal and improve on the LTPP analysis. However, the CAISO's management undermines those efforts every time they mention a need for 4,600 MW of new resources without waiting for the staff analysis to be completed. It remains to be seen whether any new capacity is needed by 2017 or 2020, let alone 4,600 MW of new resources that could cost consumers over a billion dollars a year in higher rates.

"Some of the blame for this situation lies with the CPUC, which should never have allowed the IOUs to engage in apparently anti-competitive behavior by excluding existing resources from RFOs. There was no reason not to sign PPAs with existing resources instead of building new capacity, irrespective of need.

"If FERC denies the CAISO's request for a tariff waiver, then I don't doubt for a moment that Calpine will mothball or perhaps even retire Sutter and use the components somewhere else. Allowing the plant to be mothballed or retired would be a healthy development in California, because it would take surplus supply out of the market and it would also demonstrate that policymakers are willing to let the markets work. It's more likely CAISO management's recommendation to apply for a tariff waiver will sail through next week's Board meeting even though it is based on speculative judgments about the need for resources and resource flexibility rather than a sound technical and economic analysis. If the tariff waiver is ultimately approved by FERC, every other supplier in California will immediately submit similar requests asking the CAISO to aid their uncontracted capacity and pass the cost on to consumers with no oversight by the CPUC."

An anonymous note about last week's rant regarding the Cappuccino's approval of the Abengoa project. "The State should change the CPUC appointment process and not allow commissioners to serve until they are confirmed or in the alternative eliminate the confirmation process."

That's a thought. Finally, Phil Muller responded several weeks ago to my frustration in attempting to secure private individual-coverage medical insurance. "Regarding health insurance, I had a similar results a couple years ago when I applied for individual coverage - I couldn't get covered but my wife could. Fortunately, I was able to join in with a company I'm affiliated with and get coverage there at a fairly reasonable rate. Clearly, from the perspective of the self-employed, the healthcare system is broken. It will be interesting to see if the widely disparaged "Obama-care" will have any impact."

Finally, Steve Huhman entered a thought regarding my diet. I'm about 2½ lbs. lighter than last week. "Regarding your diet discipline, I noted your mention of having to avoid barbecue due to the sugar content of the sauce. Back in the spring, I decided to resurrect a long-dormant skill, barbecuing. I focused on chicken, and pork spare ribs, and making homemade barbecue sauce, something I learned from my Dad about 45 years ago. Sauce making was not done according to an exact recipe - -it was more an approach that used a set of core ingredients, but subject to some variation, within parameters, with each batch. I knew basically what I wanted in my barbecue sauce - -tomato paste and beer, plus a variety of spices - -but I thought I'd check the sauces for sale at the store for ingredient ideas that might not have occurred to me. I was stunned to find that, on every one I checked, the single largest ingredient was high-fructose corn syrup! Although my own recipe includes a bit of brown sugar, I never thought of barbecue sauce as a 'sweet' food, and seeing the way store-bought is assembled primarily around corn syrup just redoubled my motivation to make my own home version.

"Who knows how many people would share my taste preferences, but I have been very happy with how my (non-sweet) barbecue sauce experiments have turned out. The taste profile definitely leans a bit more towards the bitter side. Anyway, although the beer component might violate a strict no carbohydrates rule, there are approaches to barbecue sauce you can explore that are not nearly so sugar-centric."

Steve, you are a scientist. Yes, all restaurants either use a pre-fabbed BBQ sauce with lots of high-fructose corn syrup or simply add tons of sugar or molasses to the batch. Looking forward to seeing your product in stores everywhere.

>>> Odds & Ends (_!_)

My neighbor across the street is a clever guy. He spent decades in the international banking industry. However, he retired from those gigs, and lately he scratched an itch to invent something. I know so few people who are inventors ... one being Mark Bryfogle. My friend in Tahoe invented a simple way to store wine that is left over. Without an effective storage method, the wine loses its taste in a day. With my friend's invention, your wine will stay fresh for weeks. It's a clever invention, very inexpensive, and he has a patent pending on the item. He gave me a dozen <u>Timeless Wine Storage</u> products from his first production run. I told my neighbor that I would tell y'all about it, and if any of you wine enthusiasts are so inclined, send me your snail mail address and I'll send you a

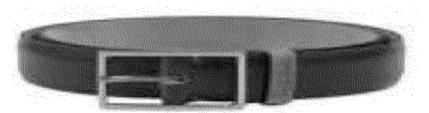
sample of the product. All we ask in advance is the courtesy of a note regarding your thoughts regarding the product. Who's game?

The dog picture of the week is from Robert Pierce. He wrote: "I couldn't resist the



Dogathon. Here' a picture of our golden retriever named 'Bullet'. Bullet is a true Mid-C dog as he was born in Omak, WA. and purchased in Wenatchee. Hence his registered name 'Bullet, Helldog of the Okanogan'. Bullet is golden retriever number 5 for us, preceded by past 'Murphy', 'Hannah', 'Hollie', and the current 9 year old 'Crash (the Wonderdog)'. Bullet is a very enthusiastic 2¹/₂-year old. He enjoys indoor time [read - running and jumping over the sofa], diversity [read- chasing the cats], excavation and irrigation [read digging and chewing up sprinkler heads], and sentry duty [read – barking at the coyotes across the creek]."

This is the second to the last Burrito for 2011. I can't wait to get out next week's edition



and then take a two-week break. So keep sending those recipes and stories that everyone loves to read.

ANDY ROONEY ON SEX!

1. When I was born, I was given a choice - a big pecker or a good memory.... I don't remember what I chose.

2. Your birth certificate is an apology letter from the condom factory.

3. A wife is a sex object. Every time you ask for sex, she objects.

4. Impotence: nature's way of saying, "No hard feelings..."

5. There are only two four letter words that are offensive to men - 'don't' and 'stop', unless they are used together.

6. Panties: not the best thing on earth, but next to the best thing on earth.

7. There are three stages in a man's life: Tri-Weekly, Try Weekly and Try Weakly.

8. Virginity can be cured.

9. Virginity is not dignity, it's lack of opportunity.

10. Having sex is like playing bridge - if you don't have a good partner, you better have a good hand.

11. Marriage is the only war where you get to sleep with the enemy.

12. Question: What's an Australian kiss? Answer: The same thing as a French kiss, only down under.

13. Question: Why do men find it difficult to make eye contact? Answer: Breasts don't have eyes.

14. Despite the old saying, 'Don't take your troubles to bed', many men still sleep with their wives!

I wonder if Andy Rooney really said those things. I'll have to check it out. Here's another to take you into the weekend.

Temperature-driven behavior in Chicago

As the weather here in Arizona turns cold, a friend in Chicago reminds me of how I used to live back there:

60 above - Arizonans wear coats, gloves, and wooly hats. Chicago people sunbathe.

50 above - New Yorkers try to turn on the heat. Chicago people plant gardens.

40 above - Italian cars won't start. Chicago people drive with the windows down.

32 above - Distilled water freezes. Lake Michigan's water gets thicker.

20 above - Californians shiver uncontrollably. Chicago people have the last cookout before it gets cold.

15 above - New York landlords finally turn up the heat. Chicago people throw on a sweatshirt.

0 degrees - Californians fly away to Mexico. Chicago people lick the flagpole and throw on a light jacket over the sweatshirt.

20 below - People in Miami cease to exist. Chicago people get out their winter coats.

40 below - Hollywood disintegrates. Chicago's Girl Scouts begin selling cookies door to door.

60 below - Polar bears begin to evacuate Antarctica. Chicago's Boy Scouts postpone "Winter Survival" classes until it gets cold enough.

80 below - Mount St. Helen's freezes.

Chicago people rent some videos.

100 below - Santa Claus abandons the North Pole. Chicago people get frustrated when they can't thaw the keg.

297 below - Microbial life survives on dairy products. Illinois cows complain of farmers with cold hands.

460 below - ALL atomic motion stops. Chicago people start saying. . ."Cold 'nuff for ya??"

500 below - Hell freezes over. The Chicago Cubs win the World Series

Well done. Have a great weekend, and we'll talk again next Friday.

gba