THE FRIDAY BURRITO Vol. XXVI #21 July 21, 2023

A Time for Every Market Under Heaven

"When people talk, listen completely. Most people never listen."

Ernest Hemingway

"A point of view can be a dangerous luxury when substituted for insight and understanding."

Marshall McLuhan

It is Mid-July, the summer heat is upon us, the beaches are packed, and families are on holiday … perfect time for the big-box stores to stock their aisles with Halloween candy and costumes. C'mon, tis the season. Push the back-to-school stuff to the back and open the wallets to buy scary sweets in advance of the annual crush. Hurry. The Christmas toys are anxious to be displayed in a few short weeks.

Western States Playbook

CAISO YTD Renewables Curtailment:

As of 6/31/23:	2,160,057 MWh
As of 6/31/22	2,062,734 MWh

% of solar and wind output curtailed relative potential renewables production:

YTD as of June 2023	6.53 %
YTD as of June 2022	6.14%

WPTF Summer General Meeting: Thursday and Friday, August 24 and 25. Speakers include Pat Wood, Gillian Clegg (PG&E), and William Walsh (SCE). To register for the event please click here.

WPTF DC Roundtable: Friday, August 11 starting at 8:30 a.m. Event location will be hosted by Jenner & Block LLP. Topics will include Resource Adequacy in the West, and forthcoming expanded Day-Ahead markets by the CAISO and SPP. Registration is available here.

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CAISO OASIS Breezes

I'm just a data geek, looking to groove
I'm all alone with nothing to prove
OASIS got everything but it's too slow
All I want is directional flow

Info, yes, info something I crave
Something that matches the Outlook Today
I'd like to hear somebody say
I'll give gross MWs each evening and day[1]

I hang amongst a community of data sleuths (a.k.a. nuts) who examine reams of raw information seeking content and insight. There might be buried intelligence to aid buyers and sellers of wholesale power. Retail is a stuck pig that pivots on regulatory decisions that are politically decided and too late to do much good other than recover costs, if that. Nothing immediate about it. Wholesale, on the other hand, is a fast-paced action-packed way to make money or lose one's shirt. The dynamics of the wholesale markets are nothing short of intriguing. Also, the wholesale power markets reflect creases in the relevant rules and policies that dictate unintended outcomes both for energy flows and reliability.

That is why I harp on unexplainable differences between the CAISO's OASIS website and its Today's Outlook pages. I must not be alone because last Monday the CAISO posted a document called OASIS FAQs. WTF? I came across Question #4: "*Does OASIS data match the data available on Today's Outlook?*"

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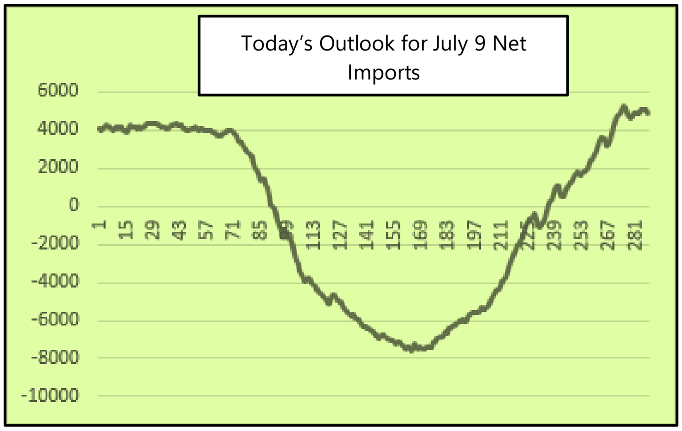
[1] Sung preferably in the shower to Paul Anka's "I'm Just a Lonely Boy."

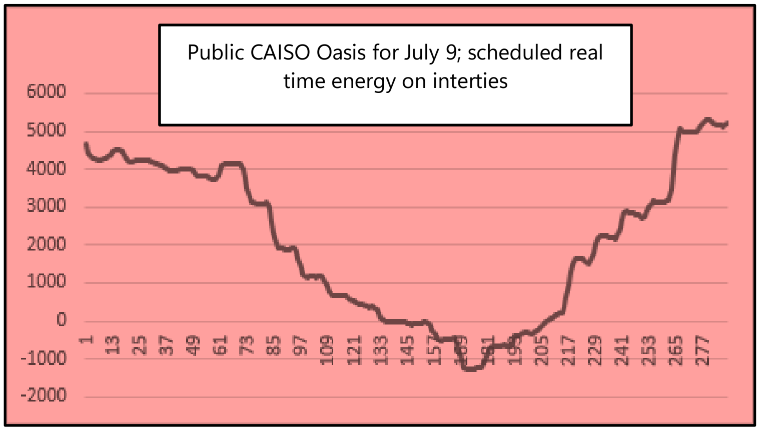
"*Answer: The data provided on OASIS does not directly match the data found on Today's Outlook. Today's Outlook is designed to provide data in a summarized manor and is Telemetry based, while OASIS is Market output based.*"

The only available flows on OASIS are net imports or net exports. Surprised was I to learn that OASIS provides its users a button to filter the data based on flow direction (i.e., import or export), but either way in the day-ahead and real-time prints (or just prior to real time) the values are only net, not gross.

I asked a colleague with many years of experience in the western market if he could explain that? He replied that the flow direction may affect reported transmission capability at the interties in that the two potentials can be different. Then I asked him to explain the insistence of the CAISO to only report net imports rather than the gross? After all, a net import of 1,000 MW for a time segment has an infinite number of gross imports and gross exports that when netted equal 1,000. For example, imports could be 1,001 MW and exports 1 MW. Or imports could be 3,000 MW and exports 2,000 MW. Same net, but a vastly different conclusion. He said in a charitable spirit that the CAISO traditionally was a heavy power importer and using "net" for an overwhelming directional flow made some sense. Maybe it no longer does and gross values should be reported.

The issue became the focus of discussion regarding the CAISO's operations on Sunday, July 9. I wrote about it last week. The maximum net exports (or minimum net imports) was 7,599 MW at 1:35 p.m. Several readers who are adept at using OASIS reported that they had maximum net exports of about 1,000 MW that day, far less than what was reported in Today's Outlook. Reviewing the two figures below, no one could explain the difference. Yes, the left chart is composed of 5-minute reads across the day. And the right is real-time scheduled net imports. But wouldn't you expect real-time schedules to be close to the actual flows, and if not, then why do the differences persist on such a systematic basis? OASIS data (when you can get on the site and not punted off without warning) provides a lot of information about the action and capabilities at the fifty separate intertie points. The one thing, the most important thing it doesn't provide is the gross flow. In fact, to even get the sum of the intertie schedules using OASIS a spreadsheet must be independently prepared to pull together the data and sum across the fifty entries for each hour or fifteen-minute segment. Way above my pay grade (and age-impaired abilities).





There are ample reasons for massive exports from the CAISO midday. Solar energy is abundant, relative prices are favorable, and outflow transmission space is also open for business. It makes sense from a trading perspective. But does it make sense that California ratepayers are shelling out money to compensate the renewables fleet to accommodate their neighbors directly and then the load-serving entities scheduling those assets take credit for the renewables energy in their annual portfolio standards compliance? Or are we dealing with a data error? It wouldn't be the first time that something was amiss in the Today's Outlook series. Maybe the OASIS information is correct, and the Today's Outlook is messed up. Or maybe they are both correct and the EIM 5-minute transactions explain the wide differences. At this juncture I cannot preclude any answer. Only the sadness of a lonely data geek. *Help me, Obi-Wan Kenobi; You're my only hope*.

The Humorless Envoy

Life would be boring without Mr. Kerry as our nation's climate representative. He carries the wishes of all the Gretas in the land to far flung places that give lip service to reducing carbon emissions, and then pats them on the back. Recently, Mr. Kerry was in China and attempted to shake President Xi's hand and tell his minions how to boost their economy and clean up their emissions. However, the President refused to meet with Kerry and he was shuffled off to visit with other Chinese dignitaries.

An WSJ editorial advised last week, "*In a January 2022 speech, President Xi Jinping said carbon goals shouldn't come at the expense of the 'normal life' of Chinese people or energy or food security, … Carbon-neutrality goals 'can't be detached from reality, … We can't toss away what's feeding us now while what will feed us next is still not in our pocket.*'" Well said "Mr. President for Life" Xi. He should run for Governor of Washington State. Kerry believes that the Chinese economy will absolutely benefit in terms of growth (currently lagging behind historical rates) if it accelerates its carbon reduction emissions emanating from coal and methane.

But according to the WSJ editorial, look at what has been going on in China. "*The Climate Action Tracker says China's 'coal production reached record levels in 2022 for the second year running,' and "coal is set to remain the backbone' of China's energy system. No kidding: Between 2020 and 2022, China added some 113 gigawatts of new coal-fired power plants … The entire world managed to retire some 187 gigawatts of coal plants between 2017 and 2022.*" Also comparing the U.S. to China, "B*etween 2015 and 2022 China's greenhouse gas emissions increased nearly 12%, while U.S. emissions declined some 5%. China's methane emissions rose about 3% from 2015 to 2021, the latest year with good data, while the U.S. cut them by 5%.*" I suggest that the U.S. reductions mainly were due to gas-coal substitution rather than large slugs of renewables.

Good hunting while in China, Mr. Kerry. Earlier this year, "*China had some 306 coal-fired power stations proposed, permitted or under construction … When finished those plants would generate some 366 gigawatts, or about 68% of the world's total coal capacity under development. As of April, China also had 180 new coal mines or mine expansions proposed, permitted or under construction.*" It's good to be king.

Simply Suedeen

Click here to learn more about Suedeen Kelly

Where were you at 4:04 pm EDT on August 14, 2003, when the lights went out in North America? We are commemorating the 20th anniversary of that event, and the National Association of Regulatory Utility Commissioners convened its Summer Summit last week to do just that. It was a rather solemn remembrance, attended by a large gathering of people who personally experienced the blackout or watched news coverage of it with shock and disbelief. The Northeast Blackout, as it came to be called, although it also affected the Midwest and Canada, was horrifying. It covered eight states—Ohio, Michigan, Pennsylvania, New York, Vermont, Massachusetts, Connecticut, and New Jersey—and Ontario province. It affected 50 million people and brought down 61,800 MW. Power was not restored for 4 days in parts of the U.S., and for more than a week in parts of Ontario. It contributed to at least 11 deaths. Estimated total costs in the U.S. were between $4 and $10 billion. Canada lost 18.9 million work hours, and its GDP dropped .7% in August.

The next day, the U.S. and Canada began a joint investigation. Three months later, on November 19, 2003, they identified the blackout's causes and why it cascaded. Five months later, in April 2004, they issued a Final Report that pulled no punches and made 46 sweeping recommendations to reduce the possibility and scope of future blackouts. Topping its list was making reliability standards mandatory and legally enforceable. A year later Congress did that, in the Energy Policy Act of 2005.

Are we still at risk of a massive blackout? Arshad Mansoor, CEO of EPRI, and Jim Robb, CEO of NERC, say that risk is now minimal. However, they caution we must do more to maintain reliability and resiliency from the dual threats of cyber insecurity and inadequate back up of our growing portfolio of intermittent renewables. Their thoughtful words were met with respect and reflection and a general pledge by NARUC to work on this.

J.D. Power Downgrades California

It will come as no surprise to anyone either living in, or how has relatives and friends in the Golden State that things have turned sour. Yet, with gusto one reads the mounting evidence that those who flee its borders have good reasons. The industry mag Utility Dive ran an opinion piece last week entitled, "How Years of Mismanagement and Regulatory Failures Broke California's Utilities." Whereas it seemed a bit unfair to blame the utilities for what they are directed to do, I wanted to share some observations from the authors, both of whom are employees of J.D. Power, the data analytics firm.

For example, they reported, "*By 2008, California was the 18th highest-ranked state in the U.S. in the annual J.D. Power Electric Utility Residential Customer Satisfaction Study, with strong performance on corporate citizenship and customer communications metrics, and all signs were pointing to continued improvement. Today, California's electric utilities rank 45th in the nation in our annual study, marking one of the sharpest declines in customer satisfaction we've ever tracked.*" California is number 1 in swift declines. Do tell.

What we believe…

1. Competition yields lower electricity rates.
2. Stable and transparent rules and regulations promote private investment.
3. 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.
4. Private sector investment results in lower average prices without risking consumers' money.
5. However, when IOUs do the investing, the risks to them are minimal or non-existent because ratepayers cover all the costs.

There were several measures of customer satisfaction that have significantly dropped. The first that I thought was a bit curious was: "*Poor customer communications have been amplified by California regulators' clumsy approach to pricing. For the calendar year 2022, California had the highest retail electricity prices in the continental U.S. at 22.48 cents per kilowatt hour,… an increase of 76% since 2008.*" Look, I can explain that. No one wants to tell consumers what this energy transition will cost them. How do you share bad news? They are bludgeoned with studies and reports that identify billion dollars for this and that as if it had some meaning to the individual consumer. It doesn't. Even percent increases of their monthly electricity bills hardly make a dent. People get huffy when the deal has been done, investments committed, and consumer bills continue to soar. It gets people sore … when they soar. About the mandated time-of-use rates proposed by the CPUC back in 2016, the Op Ed wrote: "*When customers proactively choose to be a part of a TOU, their satisfaction levels and perceptions of affordability improve. Among California utilities, only the Sacramento Municipal Utility District got this customer communication formula right. The rest forced TOU on their customers and they are still paying the price.*"

What we believe… (cont.)

6) Overcapacity lowers electricity spot market prices; yet retail rates can increase in this case due to full cost-of-service regulation.
7) Markets work best when there are many buyers and sellers.
8) At-risk money will be put to investment where markets exist that are well regulated and yield credible prices.

Interesting that SMUD was the lone proactivist in this effort. Not the first time SMUD has impressed. SMUD was also the only utility (once, maybe still) to include in its customer bills a line item for the cost of complying with the Renewable Portfolio Standard (RPS). They put the info in the monthly electricity bill instead of hoping no one would notice or ask.

The authors advise the following common-sense formula: "*Large-scale sustainability initiatives on the scale of what California has been trying to implement simply cannot happen without customer buy-in. It's the customers who need to change patterns of energy use and consumer behavior for any of these things to work. Meanwhile, many actions California has taken in the name of sustainability have been introduced without any thought to the voice of the customer.*" It means that customers need to take their angst to the ballot box when voting on state representatives to the Senate and Assembly. Electricity price escalation and the reasons for it is a room-sized elephant that no one wants to talk about.

Summer Veggie Bake with Chef Laura Manz

"*Mid-summer makes me nostalgic for New Jersey, the Garden State, where farms and roadside farm stands can be found among the mayhem. I have adapted to the town center farmers markets of Southern California and am still amazed at the variety and abundance of summer produce. This recipe takes me back to favorites such as eggplant, tomatoes, zucchini, and peppers. You can add your own flair of vegetables and seasonings to make it your own favorite.*"

Peel and cut 2 eggplants into thin strips. Lightly salt and let rest on a lint-free towel for 30 minutes. Brush with olive oil and broil until softened then set aside. In a large bowl, whisk together the ¼ cup olive oil, 2 tbsp. of sherry vinegar, 2 grated cloves of garlic, 1 tsp. of dried oregano, 1 tsp. of salt and 1 tsp. of pepper. Mix with 2 pints of cherry tomatoes, 2 bell peppers cut into 1" pieces, 2 small zucchinis cut into 1" slices and toss to coat.

Lightly grease a 9-by-13-inch baking dish with some cooking spray. Layer the eggplant along the bottom of the pan. Continue to layer the other vegetables on top along with any remaining liquid in the bowl. Sprinkle the top with 8 oz of crumbled feta cheese. Cover with foil and bake at 400 degrees for 40 minutes until the vegetables are cooked through, removing the foil at the 30-minute mark. Top with torn basil leaves and serve. Leftovers make a wonderful frittata too.

Great, Laura. The feta cheese should be a premium type. There are so many varieties, and our fave happens to be French feta that can be found in some markets, but not all. Worth the extra expense.

>>> Things in the West

@@@ Expanded Markets and Regional Platforms Slog On

I don't know how the subject matter experts among participants in the Western Grid retain all the information about the concurrent developments regarding the CAISO's EDAM, SPP's Markets+, and the Western Power Pool's Resource Adequacy Program (WRAP). Among the few who bravely endeavor such, most admit that the massive cache of new material is overwhelming. Worse, interpreting and summarizing the same in understandable language is another deft trick. The material is detailed, complex, and constantly changing. Then there are the meetings and conferences to update participants, that like last year are jamming people's summer schedules for this month and next. Be ready for the fall onslaught as the CAISO plans to submit to FERC tariff language that will erect the new structure. SPP is on that track too but I'm a bit vague as to what will be filed and when.

On top of all that, last Friday a public letter was co-signed by multiple state regulators in the West to both the Committee on Regional Electric Power Cooperation (CREPC) and the Western Interstate Energy Board (WIEB) introducing a concept for a regional transmission operator that has a contractual relationship with the CAISO, and in effect would provide governance over a wider area than just one state. The fact that this concept was championed by an array of states is not insignificant. The proposal has merit, but let's look a bit closer to examine the implications.

The letter explains that, "*A separate non-profit entity governed by representation from across the West would be formed. That entity could provide a full range of regional transmission operator services, utilizing a contract for services with the CAISO, including eventual assumption of the EDAM and EIM. The independent entity could also act as a vessel for delivering a West-wide fully organized market with governance shared across all states.*" Great idea, but it is a touch naïve.

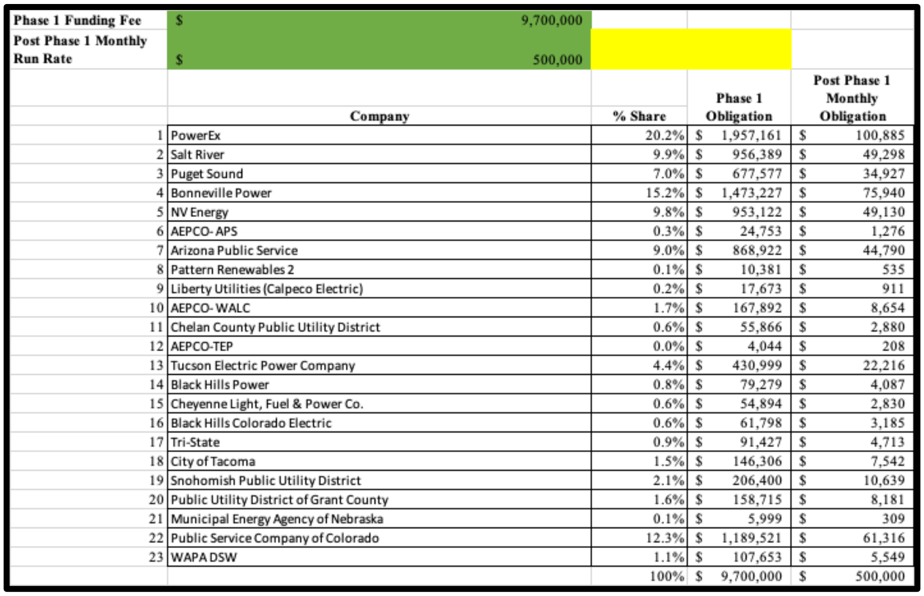
`… and, what we should do:

1. Believe in ourselves.
2. Encourage creation of independent, multi-state regional transmission organizations that coordinate policies with respective state utility commissions.
3. Support rules for resource adequacy that applies uniformly among all load-serving entities.
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.

I wish the authors had been around in November of 2016 when WPTF hosted a well-attended roundtable in Palm Springs on the topic of regionalization. Yes, the issue does seem to get bandied about for years on end. We are not at the finish line … as if. The panelists at the WPTF event included three outstanding Masters of the Universe: Dr. Joe Bowring, president of Monitoring Analytics; Scott Harvey from FTI Consulting; and Brett Kruse from Calpine Corp. These fellows had in-depth knowledge of all the different wholesale markets in the U.S. When the discussion drifted to governance of a regional entity, my Burrito notes recounted the following: "*The question was posed about California's load share in a new regional ISO with PacifiCorp and whether the lopsided weight of load in California was a deal killer. The answer was that it's not a deal killer, but it's not uncomplicated either. Most of the states in the other RTOs have equal loads more or less, and in cases where there is a gross mismatch in load share, special accommodations in the governance have been made. Therefore, there probably is a governance structure for the West that will work, but get ready for a lot of teeth gnashing in developing it. It's not going to be an obvious solution.*" That was an accurate predication, and probably easy to make. I wrote in conclusion on this topic: "*Governance is hard enough when all the states have roughly equal load shares, but it is more difficult when there's one state that dominates.*" A prophet in his own time.

Apply my learning then to the proposal put forth now, seven years later. What has changed? Nothing. An independent entity with a contractual link to the CAISO will not easily satisfy multi-state governance issues because of the lopsided weight of the CAISO load relative to all the other balancing authorities outside of the CAISO. Sure, it's worth trying but expectations must be kept in check.

Separately, but related to the overall topic of regionalization, I saw the list of funders for SPP's Markets+ as shown below, and I was surprised and impressed. The group of twenty-three participants have raised $9.7 million in startup funding. It's not that the amount guarantees anything but these are at-risk contributions in advance of the finished product to be offered by SPP.



Phase 1 Funding Fee	$ 9,700,000			
Post Phase 1 Monthly Run Rate	$ 500,000			
	Company	**% Share**	**Phase 1 Obligation**	**Post Phase 1 Monthly Obligation**
1	PowerEx	20.2%	$ 1,957,161	$ 100,885
2	Salt River	9.9%	$ 956,389	$ 49,298
3	Puget Sound	7.0%	$ 677,577	$ 34,927
4	Bonneville Power	15.2%	$ 1,473,227	$ 75,940
5	NV Energy	9.8%	$ 953,122	$ 49,130
6	AEPCO- APS	0.3%	$ 24,753	$ 1,276
7	Arizona Public Service	9.0%	$ 868,922	$ 44,790
8	Pattern Renewables 2	0.1%	$ 10,381	$ 535
9	Liberty Utilities (Calpeco Electric)	0.2%	$ 17,673	$ 911
10	AEPCO- WALC	1.7%	$ 167,892	$ 8,654
11	Chelan County Public Utility District	0.6%	$ 55,866	$ 2,880
12	AEPCO-TEP	0.0%	$ 4,044	$ 208
13	Tucson Electric Power Company	4.4%	$ 430,999	$ 22,216
14	Black Hills Power	0.8%	$ 79,279	$ 4,087
15	Cheyenne Light, Fuel & Power Co.	0.6%	$ 54,894	$ 2,830
16	Black Hills Colorado Electric	0.6%	$ 61,798	$ 3,185
17	Tri-State	0.9%	$ 91,427	$ 4,713
18	City of Tacoma	1.5%	$ 146,306	$ 7,542
19	Snohomish Public Utility District	2.1%	$ 206,400	$ 10,639
20	Public Utility District of Grant County	1.6%	$ 158,715	$ 8,181
21	Municipal Energy Agency of Nebraska	0.1%	$ 5,999	$ 309
22	Public Service Company of Colorado	12.3%	$ 1,189,521	$ 61,316
23	WAPA DSW	1.1%	$ 107,653	$ 5,549
		100%	$ 9,700,000	$ 500,000

Play a game with me. The development of a regional Western entity has inched along for years. It's time to guess which entities will fall into which camp. Let's start with the assumption that SPP Markets+ has a reasonable likelihood of getting all 23 of the companies noted in the list. Outside of those companies, those that remain may have a high likelihood and some a medium likelihood of joining the CAISO EDAM. Below is my take for what it is worth:

High Likelihood of Joining CAISO EDAM	Medium Likelihood of Joining CAISO EDAM
PG&E, SCE, and SDG&E PacifiCorp BANC	Idaho Power and Avista Seattle City Light PGE

You can do your own handicapping but the outcome won't be hugely different. Weighted by energy sales or installed capacity, the EDAM entities above would be dominant in the West even minus one or two, but I don't believe that will encourage Markets+ participants to abandon their separate path.

So, the question remains, is there room for a non-profit entity to knit together the balancing authorities in EDAM and Markets+, and how does WRAP play a role in the outcome? As to the second part of my question, I dunno. For the first part, is there room for another layer of governance? Why do it when SPP and the CAISO can craft their own operating agreement for seams issues?

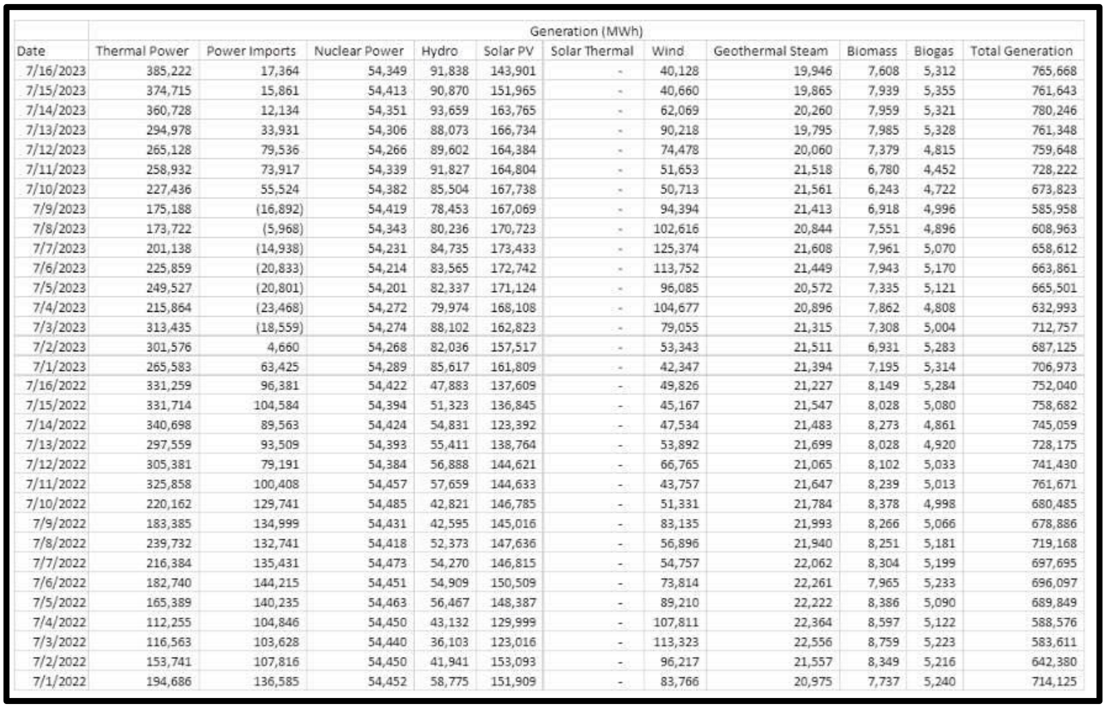
Before we leave this topic and revisit it in another one or two years, are there any large load-serving entities that are floating and have no obvious ties to picking either platform? Yes. Some of note include LADWP, IID, and Public Service of New Mexico.

>>> Shout Outs and Murmurs (👀 & 👂)

Two letters in the mailbag for this week. The first is from Joe Alves who went snow skiing on July 4th. Really. "*Skiing in Mammoth was super fun on July 4th. 715 inches – highest season ever. Worth the effort to visit Mammoth this year, rent an electric bike (at the Green Room), and visit Lake Mary or Horseshoe Lake.*

"You can see all the water coming down the streams causing CA hydro to be double last year (see Table). However, Power Imports are showing the effect of California getting all the snow (and the Washington Carbon Program?).

"Jeff Richter and Todd Crawford provided solid information from our WPTF Spring conference. The cool coastal water created a nice layer of May gray and June gloom."



	Generation (MWh)										
Date	Thermal Power	Power Imports	Nuclear Power	Hydro	Solar PV	Solar Thermal	Wind	Geothermal Steam	Biomass	Biogas	Total Generation
7/16/2023	385,222	17,364	54,349	91,838	143,901	-	40,128	19,946	7,608	5,312	765,668
7/15/2023	374,715	15,861	54,413	90,870	151,965	-	40,660	19,865	7,939	5,355	761,643
7/14/2023	360,728	12,134	54,351	93,659	163,765	-	62,069	20,260	7,959	5,321	780,246
7/13/2023	294,978	33,931	54,306	88,073	166,734	-	90,218	19,795	7,985	5,328	761,348
7/12/2023	265,128	79,536	54,266	89,602	164,384	-	74,478	20,060	7,379	4,815	759,648
7/11/2023	258,932	73,917	54,339	91,827	164,804	-	51,653	21,518	6,780	4,452	728,222
7/10/2023	227,436	55,524	54,382	85,504	167,738	-	50,713	21,561	6,243	4,722	673,823
7/9/2023	175,188	(16,892)	54,419	78,453	167,069	-	94,394	21,413	6,918	4,996	585,958
7/8/2023	173,722	(5,968)	54,343	80,236	170,723	-	102,616	20,844	7,551	4,896	608,963
7/7/2023	201,138	(14,938)	54,231	84,735	173,433	-	125,374	21,608	7,961	5,070	658,612
7/6/2023	225,859	(20,833)	54,214	83,565	172,742	-	113,752	21,449	7,943	5,170	663,861
7/5/2023	249,527	(20,801)	54,201	82,337	171,124	-	96,085	20,572	7,335	5,121	665,501
7/4/2023	215,864	(23,468)	54,272	79,974	168,108	-	104,677	20,896	7,862	4,808	632,993
7/3/2023	313,435	(18,559)	54,274	88,102	162,823	-	79,055	21,315	7,308	5,004	712,757
7/2/2023	301,576	4,660	54,268	82,036	157,517	-	53,343	21,511	6,931	5,283	687,125
7/1/2023	265,583	63,425	54,289	85,617	161,809	-	42,347	21,394	7,195	5,314	706,973
7/16/2022	331,259	96,381	54,422	47,883	137,609	-	49,826	21,227	8,149	5,284	752,040
7/15/2022	331,714	104,584	54,394	51,323	136,845	-	45,167	21,547	8,028	5,080	758,682
7/14/2022	340,698	89,563	54,424	54,831	123,392	-	47,534	21,483	8,273	4,861	745,059
7/13/2022	297,559	93,509	54,393	55,411	138,764	-	53,892	21,699	8,028	4,920	728,175
7/12/2022	305,381	79,191	54,384	56,888	144,621	-	66,765	21,065	8,102	5,033	741,430
7/11/2022	325,858	100,408	54,457	57,659	144,633	-	43,757	21,647	8,239	5,013	761,671
7/10/2022	220,162	129,741	54,485	42,821	146,785	-	51,331	21,784	8,378	4,998	680,485
7/9/2022	183,385	134,999	54,431	42,595	145,016	-	83,135	21,993	8,266	5,066	678,886
7/8/2022	239,732	132,741	54,418	52,373	147,636	-	56,896	21,940	8,251	5,181	719,168
7/7/2022	216,384	135,431	54,473	54,270	146,815	-	54,757	22,062	8,304	5,199	697,695
7/6/2022	182,740	144,215	54,451	54,909	150,509	-	73,814	22,261	7,965	5,233	696,097
7/5/2022	165,389	140,235	54,463	56,467	148,387	-	89,210	22,222	8,386	5,090	689,849
7/4/2022	112,255	104,846	54,450	43,132	129,999	-	107,811	22,364	8,597	5,122	588,576
7/3/2022	116,563	103,628	54,440	36,103	123,016	-	113,323	22,556	8,759	5,223	583,611
7/2/2022	153,741	107,816	54,450	41,941	153,093	-	96,217	21,557	8,349	5,216	642,380
7/1/2022	194,686	136,585	54,452	58,775	151,909	-	83,766	20,975	7,737	5,240	714,125

I agree with you, Joe, that Jeff and Todd did a great job explaining the western grid for this summer.

Here's a letter from Leora Broydo Vestel, Communications Director at California CCA that clarifies a few items in my write up last week: "*Regarding the CCA coverage in last week's Burrito, it's worth noting that community choice aggregators throughout the state are employing a number of financing tools to bring down power purchase costs so they can secure the energy resources they need to meet their ambitious clean energy goals and advance reliability.*

"The California Community Choice Financing Authority (CCCFA), for example, has become a top bond issuer in the U.S. with $2.799 billion in clean energy revenue bonds issued in the first half of 2023, according to Bond Buyer. The Authority's recent $1 billion green bond issuance, on behalf of the Clean Power Alliance of Southern California, is expected to reduce CPA's renewable energy costs by approximately $31.9 million over the initial five-year period of the bonds, or an average of $6.4 million annually.

"One area where CCAs are truly at a disadvantage, however, is in the resource adequacy market. Newer market entrants such as CCAs and Direct Access (DA) providers are most impacted by RA shortages as IOUs hold 'legacy' supplies built prior to the recent growth of retail choice.

"Our analysis shows that the demand for RA in California exceeds the available supply, even after accounting for imports and expected new resources. The RA market is marginal, as noted in our recent newsletter: California's Constrained RA Market: Ratepayers Left Standing in a Game of Musical Chairs. RA resources that garnered $3.63 kilowatt (kW)-month in 2019 rose to prices as high as the mid-$40 kW-month for summer 2023 and are increasingly unavailable at any price."

The RA impact(s) on CCAs, not to mention ESPs and all load serving entities is especially alarming but not unwarranted. The greatest difficulty is that everyone is competing for the same supply of limited resources.

>>> Odds & Ends (_!_)

The WPTF Summer 2023 General Meeting is scheduled for August 24 – 25 at the Resort at Coeur d' Alene, Idaho. The hotel is fully booked. No additional rooms are available at the Resort. It is recommended that you try the Coeur d'Alene Inn Best Western Plus, which is about 3.5 miles north, the Hampton Inn, or Marriott Springhill Suites.

AGENDA

Thursday, August 24

9:00 AM: Golf Outing at the Resort @ $240/person

6:00 PM: Reception, Dinner: Keynote Speaker Pat Wood, CEO Hunt Energy Network

Presentation of the Kent Wheatland Award

Friday, August 25

7:30 AM: Breakfast

8:30 AM to Noon: Keynote speakers: Gillian Clegg, VP, Energy Policy & Procurement, PG&E, and William Walsh, VP, Energy Procurement & Management, SCE.

Consultant Presentations

12 Noon: Lunch and Adjourn

The Resort is 35-40 minutes from the Spokane International Airport (GEG), and 10 minutes from the Coeur d'Alene Airport (private & chartered flights) and offers scheduled transportation in their limo vans for $69 per person round-trip from Spokane and $50 per person round-trip from Coeur d'Alene. You can make those shuttle reservations at the time you book your hotel room.

If you haven't registered for the WPTF meeting, you can do so by clicking here.

For you folks who get the meat-filled version of the Burrito, below are your stories:

The Parrot and the Magician

A magician worked on a cruise ship.

The audience was different each week so the magician did the same tricks over and over again.

There was only one problem: The captain's parrot saw the shows each week and began to understand how the Magician did every trick.

Once he understood, he started shouting in the middle of the show, "Look, It's not the same hat!" or "Look, he's hiding the flowers under the table!" Or "Hey, why are all the cards the ace of spades?"

The magician was furious but couldn't do anything. It was, after all, the Captain's' parrot.

Then one stormy night on the Pacific, the ship unfortunately sank, drowning almost all who were on board.

The magician luckily found himself on a piece of wood floating in the middle of the sea, as fate would have it ... With the parrot.

They stared at each other with hatred but did not utter a word.

This went on for a day... And then 2 days. And then 3 days. Finally on the 4th day, the parrot could not hold back any longer and said....

"OK, I give up. Where's the f____n' ship?"

Medical Advice

Two hillbillies walk into a restaurant. While having a bite to eat, they talk about their moonshine operation. Suddenly, a woman at a nearby table, who is eating a sandwich, begins to cough. After a minute or so, it becomes apparent that she is in real distress.

One of the hillbillies looks at her and says, "Kin ya swallar?"

The woman shakes her head no.

Then he asks, "Kin ya breathe?" The woman begins to turn blue and shakes her head no.

The hillbilly walks over to the woman, lifts up her dress, yanks down her drawers and quickly gives her right butt cheek a lick with his tongue. The woman is so shocked that she has a violent spasm and the obstruction flies out of her mouth. As she begins to breathe again, the Hillbilly walks slowly back to his table.

His partner says, "Ya know, I'd heerd of that there 'Hind Lick Maneuver' but I ain't niver seed nobody do it!"

Kin ya wait till next week for 'nother Burreeto? You have no choice. Have a great weekend.

gba