Nickalus Holmes

From: Nickalus Holmes on behalf of Records Clerk
Sent: Monday, July 28, 2025 9:05 AM
To: 'ROBERT TRENTO'
Cc: Consumer Contact
Subject: FW: Ability of FL to produce abundent/afforable "Base Load Energy" critical!!! Current Path out of step with capacity needs ability to sustaian FL!! Please consider learning more about where we are an options we can effect!
Attachments: Collier County Final Slideshow.pdf

Good Morning

We will be placing your comments below in consumer correspondence in Docket No. 20250000, and forwarding them to the Office of Consumer Assistance and Outreach.

Thank you,
Nick Holmes
Commission Deputy Clerk II
Office of Commission Clerk
Florida Public Service Commission
850-413-6770

PLEASE NOTE: Florida has a very broad public records law. Most written communications to or from state cJficials regarding state business are considered to be public records and will be made available to the public and the media upon request. Therefore, your email message may be subject to public disclosure.

From: ROBERT TRENTO <btrento@aol.com>
Sent: Sunday, July 27, 2025 9:11 AM
To: Rep Drew Clark Montez <drewmontezclark@gmail.com>; Ron DeSantis <Ron.DeSantis@EOG.myflorida.com>; Savannah Kelly <Savannah.KellyJefferson@eog.myflorida.com>; Jenna Persons <Jenna.Persons@FLHouse.gov>; Vanessa Oliver <Vanessa.Oliver@FLHouse.gov>; Tiffany Esposito <Tiffany.Esposito@FLHouse.gov>; .jonathan Martin <martin.jonathan.web@flsenate.gov>; Amamaria Rodrigues <rodriguez.anamaria.web@flsenate.gov>; Yvette Benarroch <Alsmarcoyvette@gmail.com>; Lauren Melo <Lauren.Melo@FLHouse.gov>; Adam Botana <Adam.Botana@FLHouse.gov>; Records Clerk <CLERK@PSC.STATE.FL.US>
Cc: Dave Walsh <Walsh@takotagroup.com>; Natalie Sablina <natalieFLrealestate@gmail.com>; Kathi Lewis <kathilewis55@gmail.com>; Kathi Meo <secretarymeoccrec@gmail.com>; John Meo <chairmanmeoccrec@gmail.com>; Alfie Oakes <ALfie@oakesFarms.com>; Bob White <rwhite345@hotmail.com>; Andrew Roth <roth@statefreedomcaucus.org>; Diane Van Parys <dmvanparys@gmail.com>; Kathleen Pasidomo/Republican Club <kpassi@aol.com>; Isabell Moeller <imoeller@fwwlocal.org>; Royal A. Brown III <royalbrowniii@aol.com>; Lane Watkins <h25pfd@yahoo.com>; Glynda White <glynndaw@hotmail.com>; Anthony Sabatini <anthony@floridafreedomaction.com>
Subject: Ability of FL to produce abundent/afforable "Base Load Energy" critical!!! Current Path out of step with capacity needs ability to sustaian FL!! Please consider learning more about where we are an options we can effect!

Below note sent to colleagues:

We can arrange to have a larger group get together or set up individual meeting. If there is an interest in learning more about FL's plight/path increasing base load energy residential/Commercial.

Attached edited (for convenience) video of informational session we did in Naples area.

Please advise how we can help you be prepared to lead on this critical issue!

PS: Complex issue lucrative incentives to do the wrong things thanks to "IRA"/"GreenNewScam" an issue we can not be on the wrong side of. Informed choices critical!!

https://rumble.com/v6ukogz-david-walsh-2025.html

bigbob

Hi Loren & Yvette hope all is well? Haven't hear anything since you guys committed to meet with Dave Walsh, learn more about "Base Load Power" needs/options & liability of FLP/FL plan, to meet increasing needs of FL, residents an industry. Hope silence means you guys are trying to schedule for the convenience of all? Fully understanding needs how best to provide energy critical. Abundant affordable power key to future technology an health of our state!!! An area few understand, yet critical to FL. Not an argument you want to be on the wrong side of, continuing down our utility drive path will cause disruption, $10's of Billions to reverse if possible!!! Make your own choice where you stand, hope that you can make an informed choice. Believe our commitment to CCP Solar/BatterStorage correct that is fine, just allow yourselves to be informed. Please advise what Dave Walsh, me, others can do to get you guys together, critical you hear both sides of discussion, staying on the sidelines on this one dangerous? bigbob

bob

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Summer
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Florida is now a solar superpower. Here's how it happened.

The Sunshine State built more large-scale solar than California last year and was again No. 2 for residential, despite state leadership opposed to climate action.

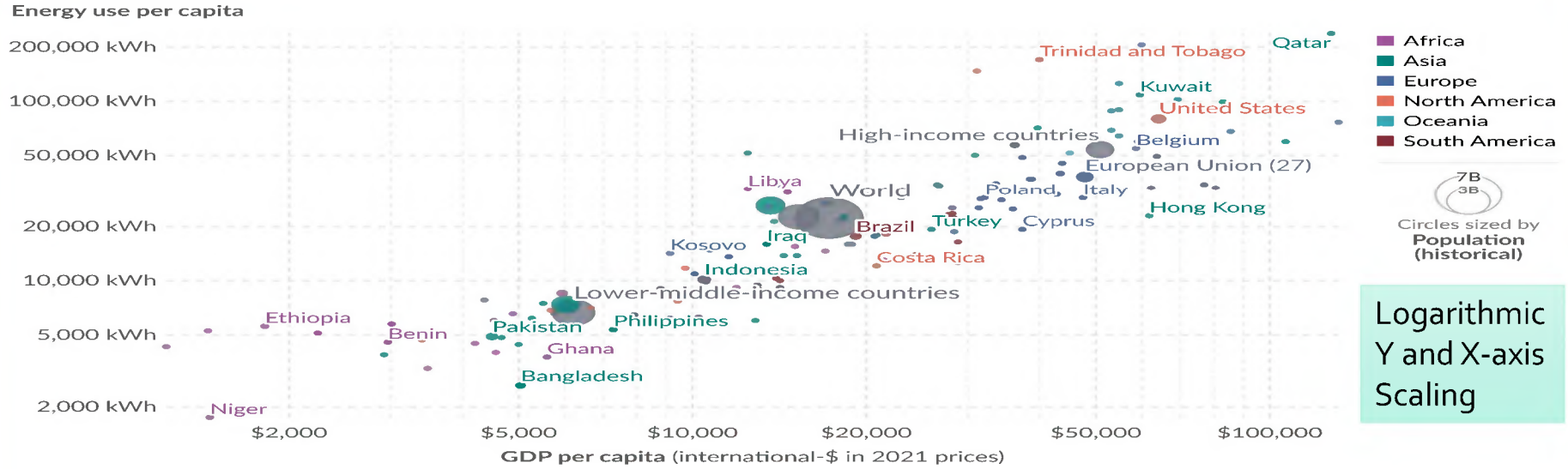
By Alexander C. Kaufman
11 March 2025

An aerial view of the Harmony Solar Energy Center in Harmony, Florida. The 74.5-megawatt solar farm opened in 2020. (Paul Hennessy/SOPA Images/LightRocket via Getty Images)

Source: Canary Media

GDP Per Capita vs. Energy Use

Annual energy use per capita, measured in kilowatt-hours[1] per person vs. gross domestic product (GDP) per capita, which is adjusted for inflation and differences in living costs between countries.



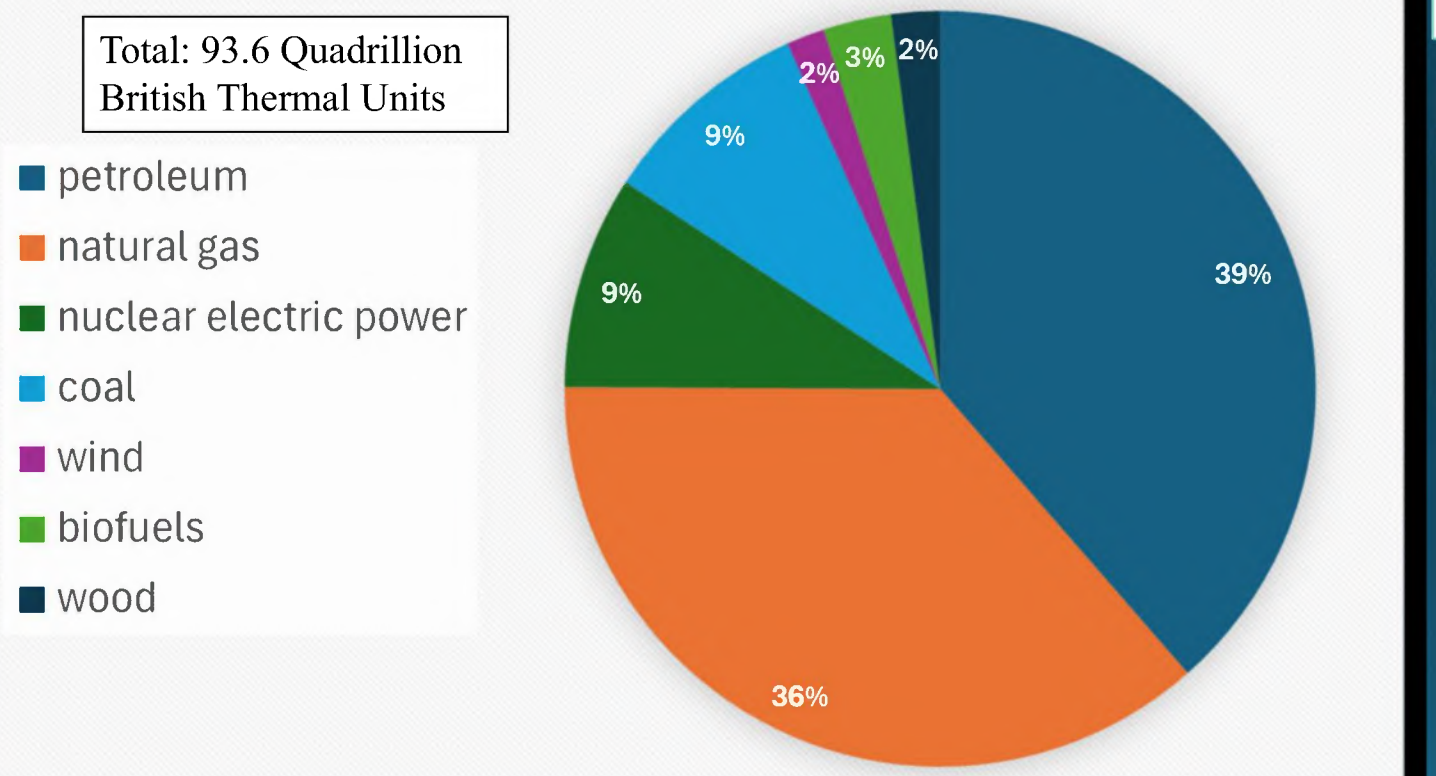
Data source: International Energy Agency (2025); Data compiled from multiple sources by World Bank (2025)
Note: GDP data is expressed in international-$[2] at 2021 prices.
OurWorldinData.org/energy | CC BY

1. **Watt-hour**: A watt-hour is the energy delivered by one watt of power for one hour. Since one watt is equivalent to one joule per second, a watt-hour is equivalent to 3600 joules of energy. Metric prefixes are used for multiples of the unit, usually: - kilowatt-hours (kWh), or a thousand watt-hours. - Megawatt-hours (MWh), or a million watt-hours. - Gigawatt-hours (GWh), or a billion watt-hours. - Terawatt-hours (TWh), or a trillion watt-hours.

2. **International dollars**: International dollars are a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards. Figures expressed in international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries. The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent. Read more in our article: What are Purchasing Power Parity adjustments and why do we need them?

U.S. primary energy consumption by energy source, 2023

Total: 93.6 Quadrillion British Thermal Units



Data source: U.S. Energy Information Administration, Monthly Energy Review, Table 1.3 and 10.1, April 2024, preliminary data

Trace, Immaterial Sources Not Shown

Source	Percentage
solar	1.0%
hydroelectric	1.0%
biomass waste	0.5%
geothermal	0.1%

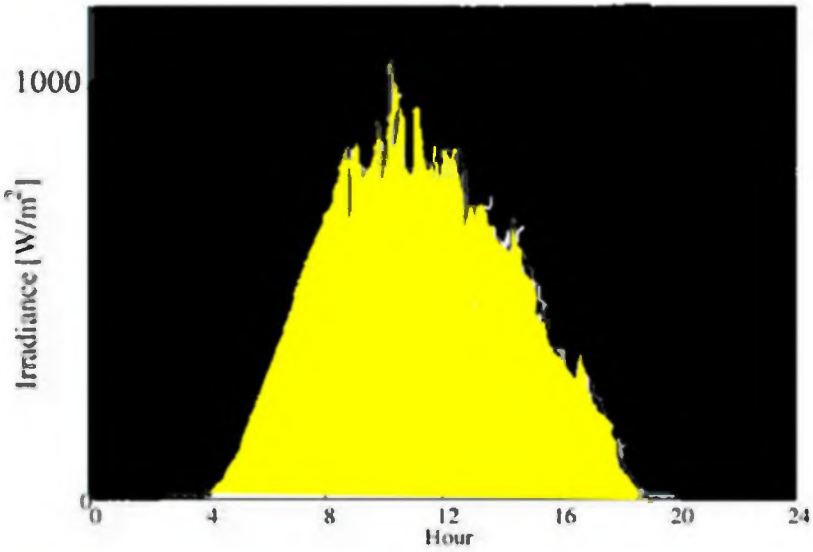
Regarding Solar:

- $314B in capital spent since 2010, + $147B in ongoing subsidies.
- Net energy value in MWh 33,120, corrected for capacity factor
- If combined cycle gas, same energy basis capital cost < $30B

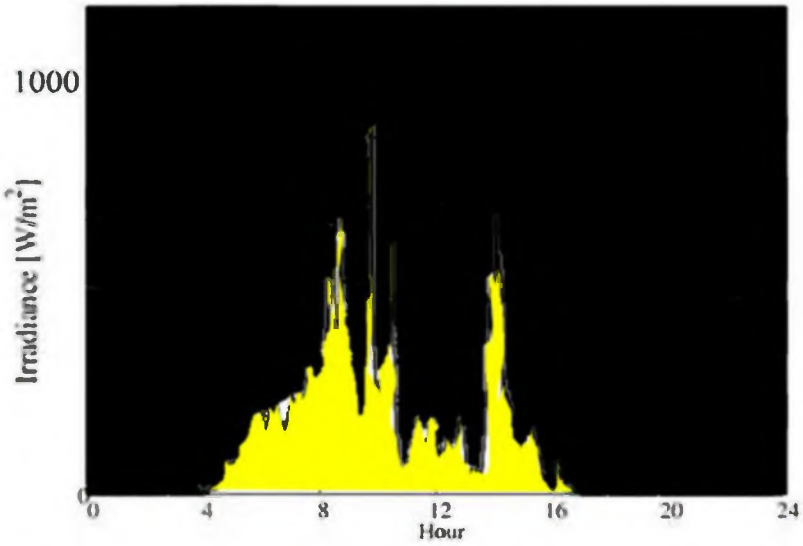
Source: NREL, Bollinger

Solar Irradiance

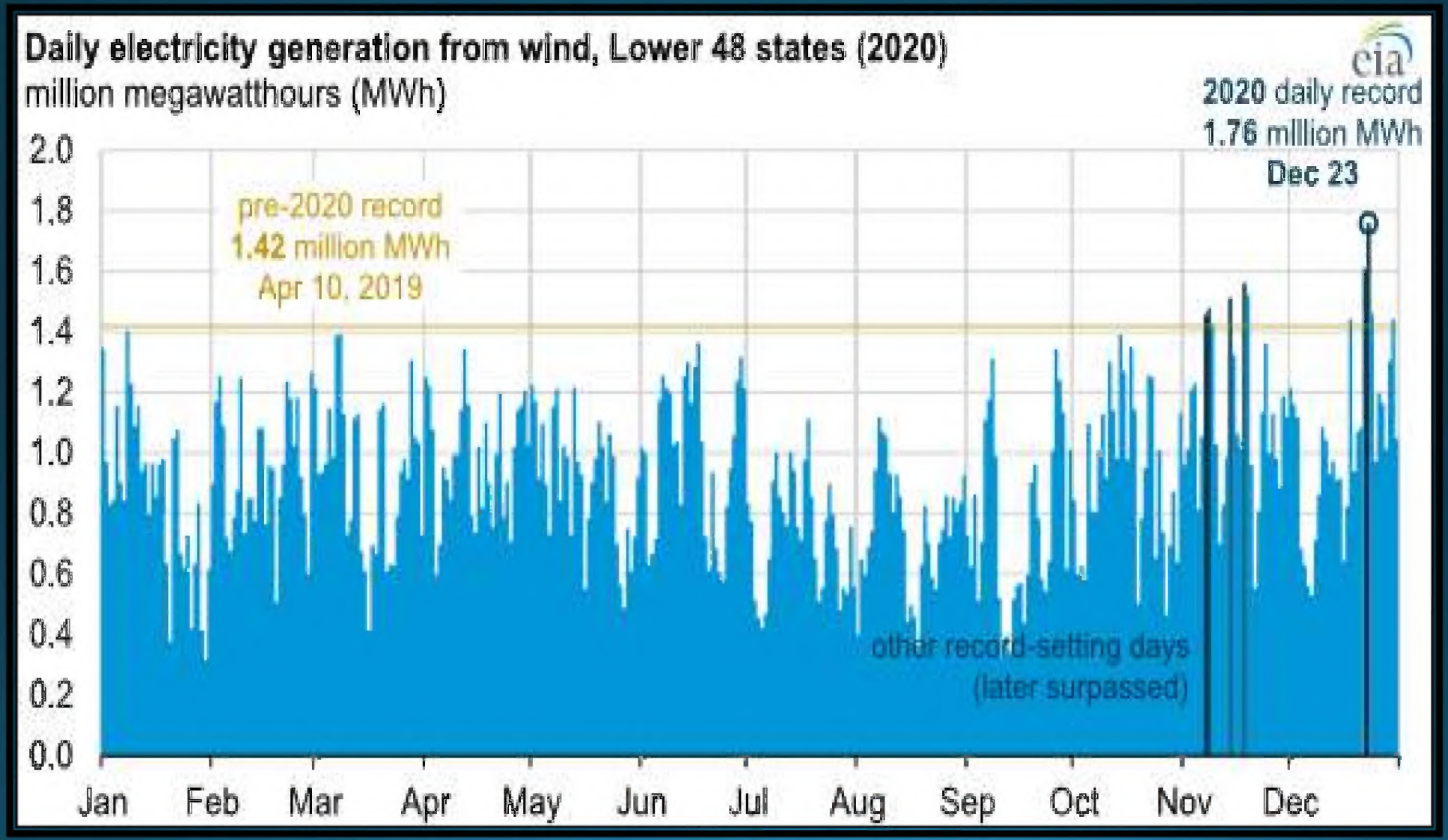
Sunny Day

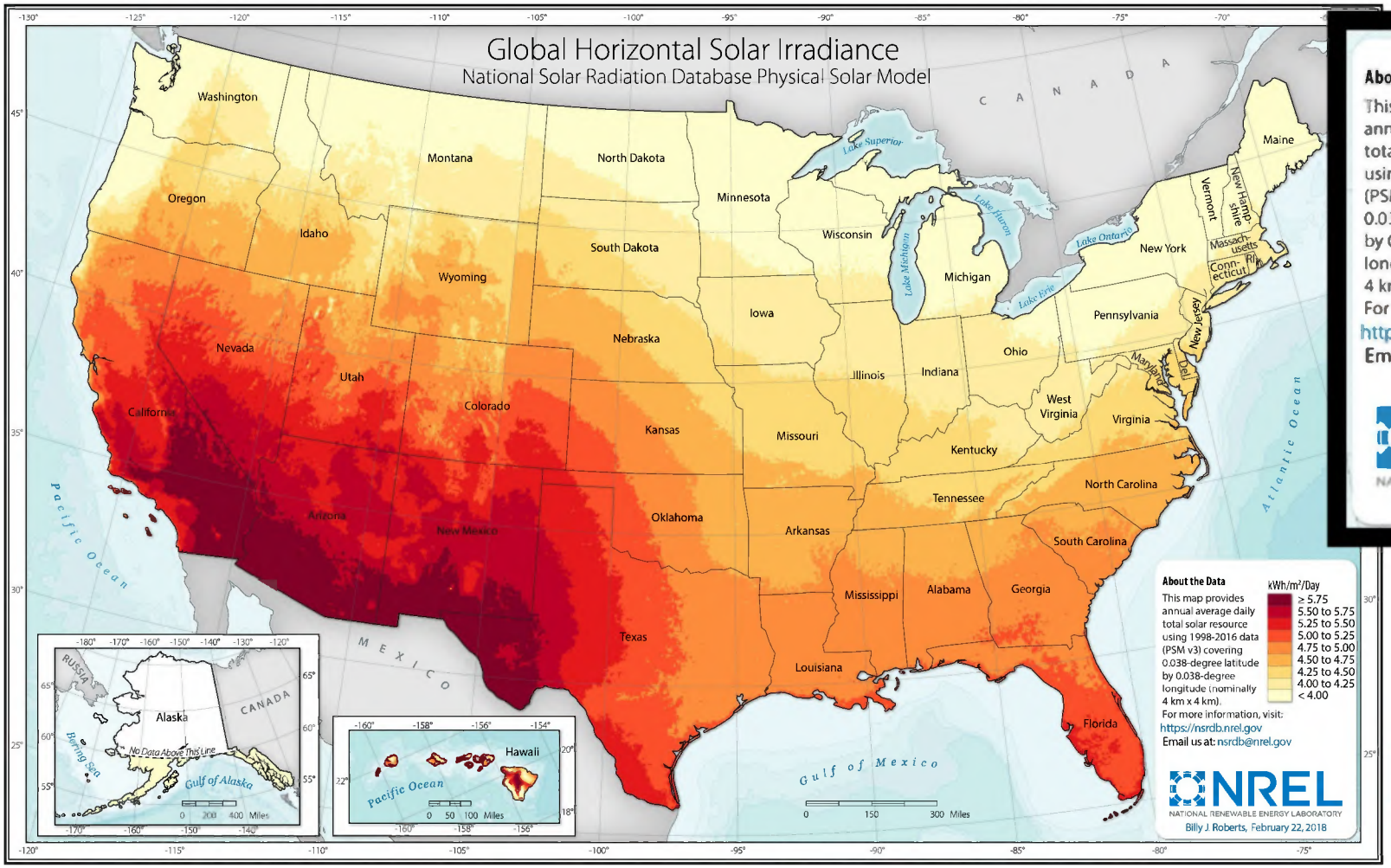


Cloudy Day



Florida has no solar power, on average, 78.75% of the 24-hour day.


Daily electricity generation from wind, Lower 48 states (2020)
million megawatthours (MWh)
eia
2020 daily record
1.76 million MWh
Dec 23
pre-2020 record
1.42 million MWh
Apr 10, 2019
other record-setting days
(later surpassed)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec



About the Data
This map provides annual average daily total solar resource using 1998-2016 data (PSM v3) covering 0.038-degree latitude by 0.038-degree longitude (nominally 4 km x 4 km).
For more information, visit:
https://nsrdb.nrel.gov
Email us at: nsrdb@nrel.gov
kWh/m²/Day
≥ 5.75
5.50 to 5.75
5.25 to 5.50
5.00 to 5.25
4.75 to 5.00
4.50 to 4.75
4.25 to 4.50
4.00 to 4.25
< 4.00
NREL
NATIONAL RENEWABLE ENERGY LABORATORY
Billy J. Roberts, February 22, 2018

NERC: 2024–2025 Winter Reliability Assessment November 2024

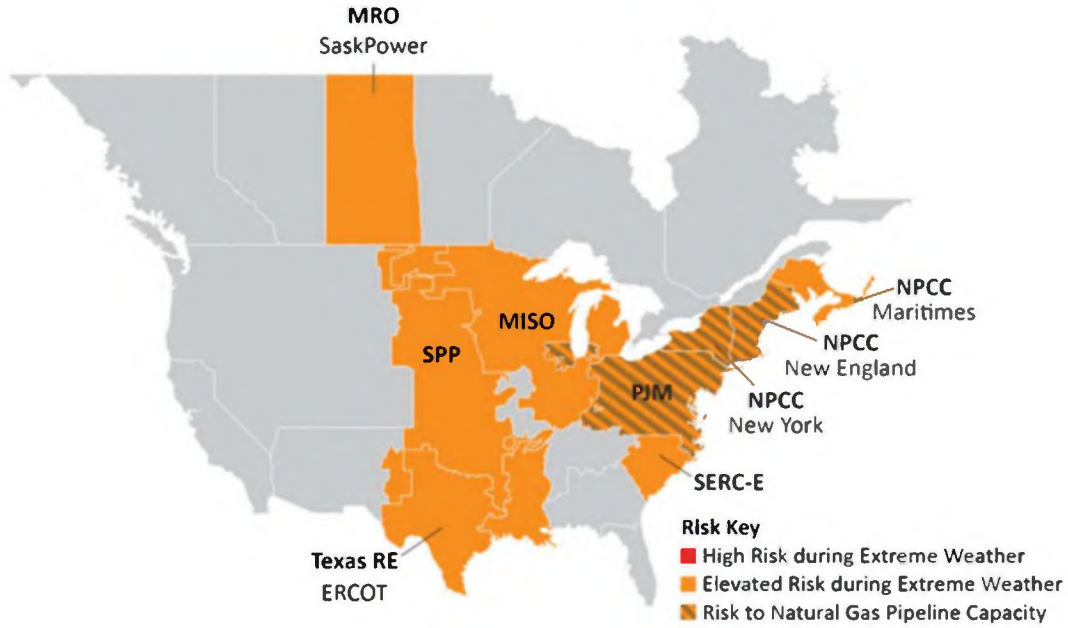


Figure 1: Winter Reliability Risk Area Summary

Seasonal Risk Assessment Summary	
High	Potential for insufficient operating reserves in normal peak conditions
Elevated	Potential for insufficient operating reserves in above-normal conditions
Normal	Sufficient operating reserves expected

247 million Americans and Canadians are exposed to an elevated risk of insufficient reserves in extreme conditions

NERC 2024 Summer reliability assessment indicates insufficient electrical capacity potentially impacting 133M Americans

The North American Electric Reliability Corporation (NERC), in its May 2024 Summer Reliability Assessment highlights five of the twenty-one North American reporting regions as now having insufficient electricity operating reserves when above normal summer demand situations (high ambient temperatures) occur, with the potential for lack of load service interruptions and brownouts.

These are:

Regions with Insufficient Reserves	Population Served	% Variable Renewable Power Mix
WECC California/North Mexico	39 M	37.2%
WECC Southwest (Arizona, New Mexico)	9.5 M	30.4%
ERCOT (Texas)	27 M	32.3%
NPC (New England)	15 M	22.0%
MISO (15 state Midwest US Region)	42 M	18%
Total	**133 M**	**28%**
Balance of US	**202 M**	**14%**

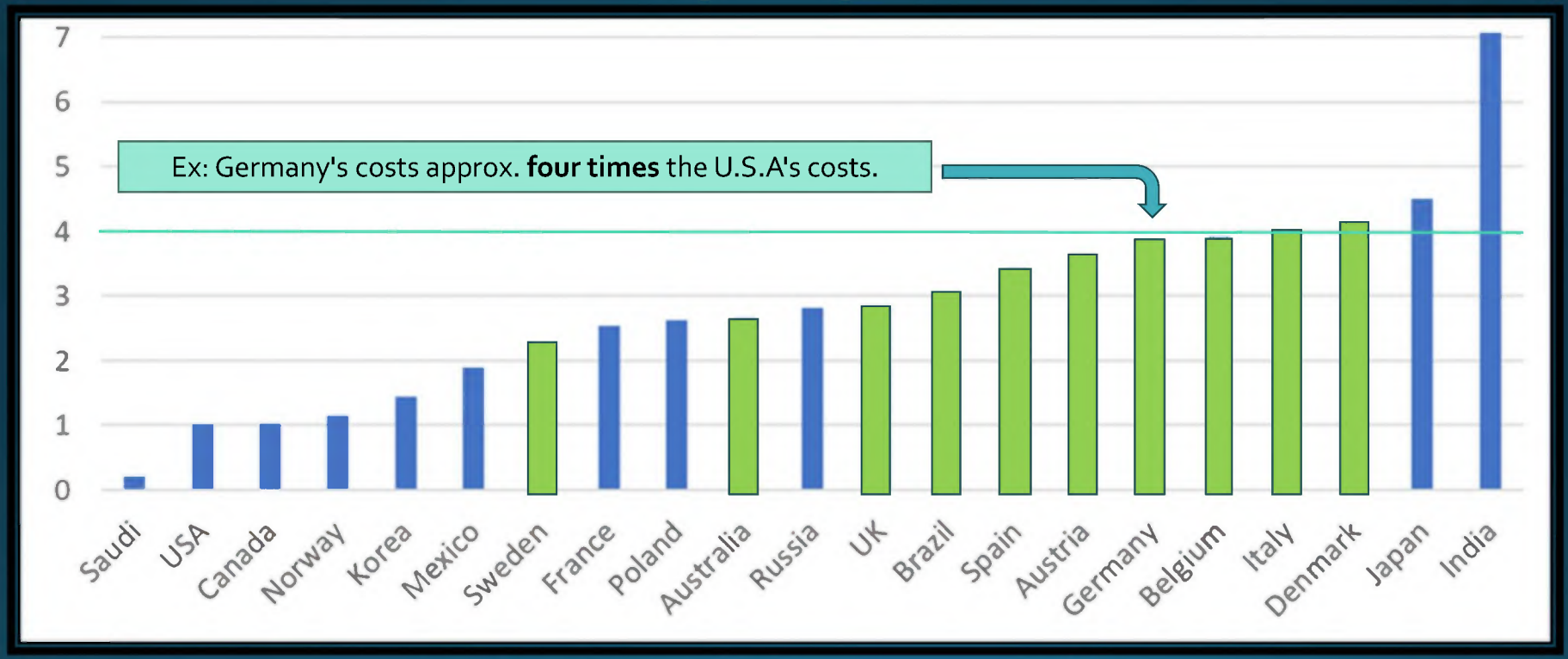
Sources:

North American Reliability Council Summer 2024 reliability assessment, May 2024.

US Energy Information Agency state electric power reports

Comparative Global Economic Access to Electricity

(in terms of average retail electricity cost as a function of prevailing country wages) (relative to the USA)



Based on the 2020 OECD reported wage and personal income tax rates, and in-country currency.

1st half 2024: average citizen electricity cost, 13 Western Eur. countries
+ UK **32.5 cents/kWh** (Eurostat Oct. `24)

= Renewable Content Exceeds 30%

2022 US Residential Electricity Cost by State
Highest Ten Versus Lowest Ten States, in Residential Cents per kWh

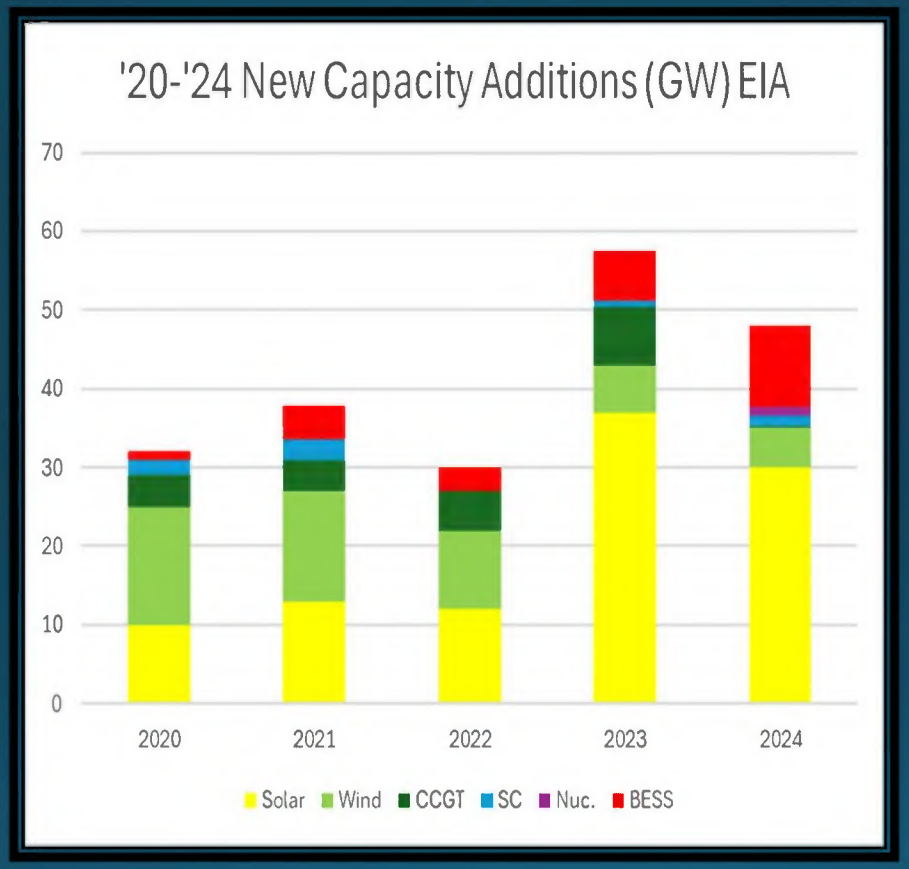
State	Cost	State	Cost
Hawaii	44.8	Iowa	11.2
Rhode Island	27.5	Arkansas	11.2
Massachusetts	30.7	Missouri	11
Alaska	22.1	Oregon	11
Connecticut	23.5	Idaho	10.5
New Hampshire	30.9	Utah	10.5
California	24.5	Wyoming	10.4
New York	22.8	Washington	10
Maine	22.5	Nebraska	9.8
Vermont	20.2	North Dakota	9.6
Avg. cents per kWh	23.4	Avg. cents per kWh	10.5
Monthly bill in whole $	$234 (2.3X the lowest ten)	Monthly bill in whole $	$104

16% net power importers

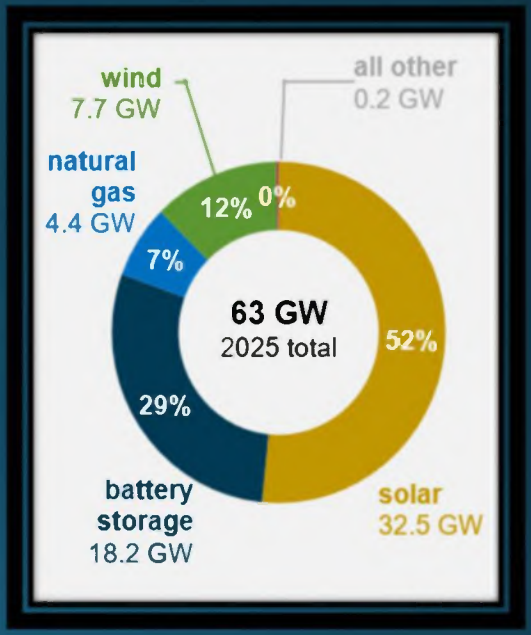
+27% electricity exporters, 16% reduced solar, wind mix

2020-2024

Type	GW	% Cap. Factor
Solar	102	21%
Wind	50.1	32%
CCGT	20.5	93%
SC	6.6	11%
Nuc.	1.1	93%
BESS	25	8%
Total Non-Op.	205.3 (145.5)	
New GW Addns.	59.85	
Net of Closed BL	20.35	



U.S. planned utility-scale electric-generating capacity additions (2025) - gigawatts (GW) - EIA



2020-2024 Investment = $397 B, only 10% base-load
5-year cumm. US net energy basis growth: 2%

The Next Era of American Energy Generation

By Susannah Randolph June 22, 2022

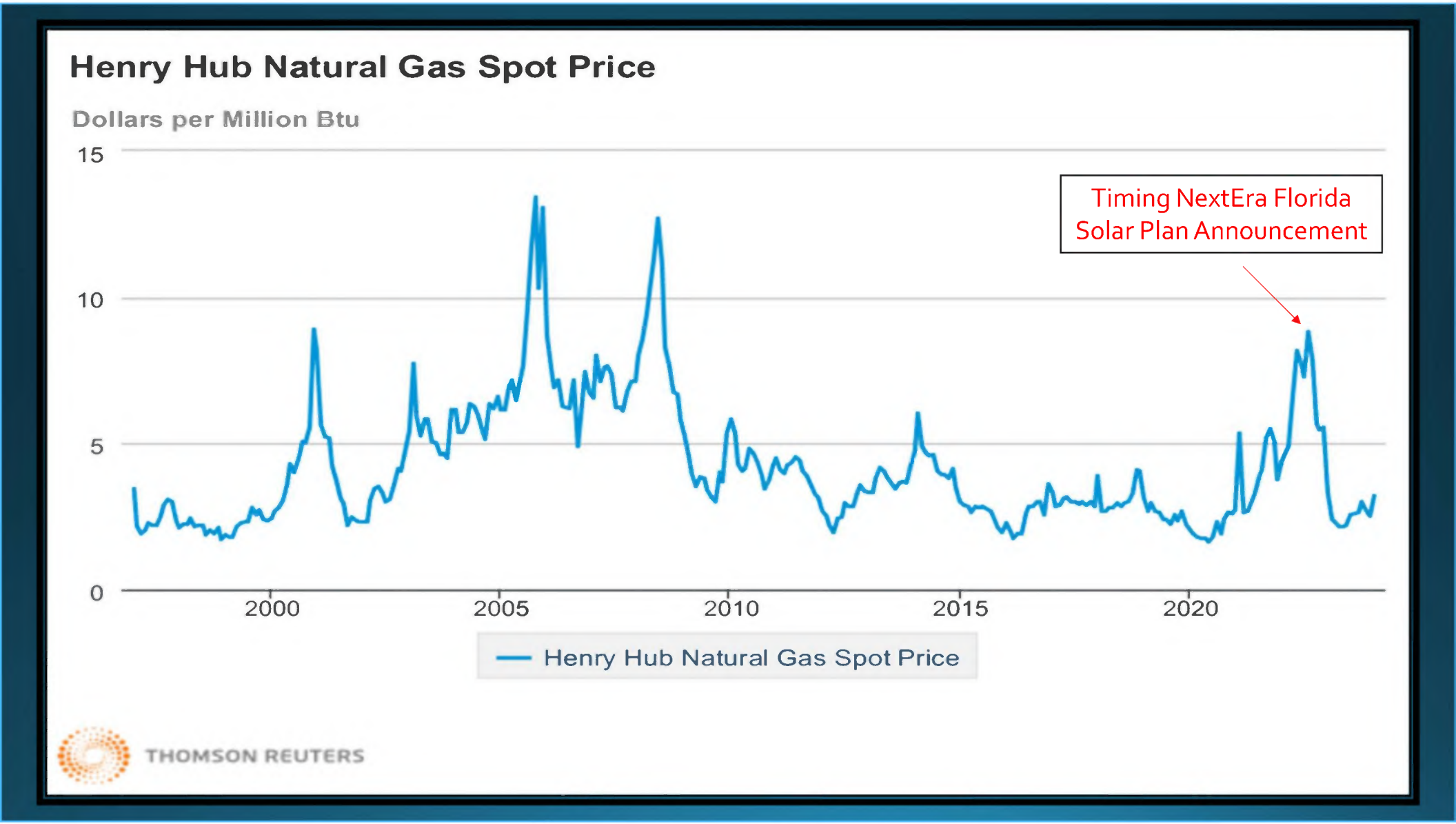
NextEra Commits to "Real Zero" Decarbonization Pledge by 2045

Last week, NextEra Energy, Inc. announced a game-changing commitment to "real zero" carbon emissions by 2045.

The commitment comes with a massive investment in solar energy, battery storage, and the emerging technology of "green hydrogen." Between now and 2045, NextEra plans to add to its system:

- 90,000 megawatts of solar energy; Net 24,300MW **$151B**
- 50,000 megawatts of battery storage; Net 4,167MW **43B**
- 16,000 megawatts of green hydrogen (converted from existing gas); **65B (net -1760MW)**
- 6,000 megawatts of biomass (which the company refers to as "renewable natural gas"). Net 5520 MW **32B**

Total Net 32,227 MW **$291B**


Henry Hub Natural Gas Spot Price
Dollars per Million Btu
15
10
5
0
2000
2005
2010
2015
2020
Timing NextEra Florida Solar Plan Announcement
Henry Hub Natural Gas Spot Price
THOMSON REUTERS

FPL's Manatee Energy Storage Center is one of the world's largest integrated solar-powered battery system, featuring 409 MW of capacity - enough to power more than 300,000 homes for a couple hours.

Saving customers money, reducing emissions

FPL's Manatee Energy Storage Center will combine clean, emissions-free solar energy with a battery that is expected to be operational by the end of 2021.

Over the life of the project, customers will save more than $100 million when the plant is completed, all part of an initiative to replace a pair of aging natural gas power generating units with clean and renewable energy.

Co-located with the existing Manatee Solar Energy Center in Parrish, FL, the energy storage center will increase the predictability of solar even when the sun is not shining. The project will also eliminate more than 1 million tons of carbon dioxide emissions.

2024-2033 FPL solar + battery storage investment cost = **$30.2B**

Resulting ann. Nat. Gas savings = $1.15B

FPL Payback = 26.3 years

Ratepayer Payback = 29.1 years

Source: FPL 2023 Form 10K, FPL 10-year 2024-2033 power site plan, EIA Henry Hub nat. Gas cost 2024 avg.

Duke Energy Florida, 2016 – 2024: Costs up 44.6%

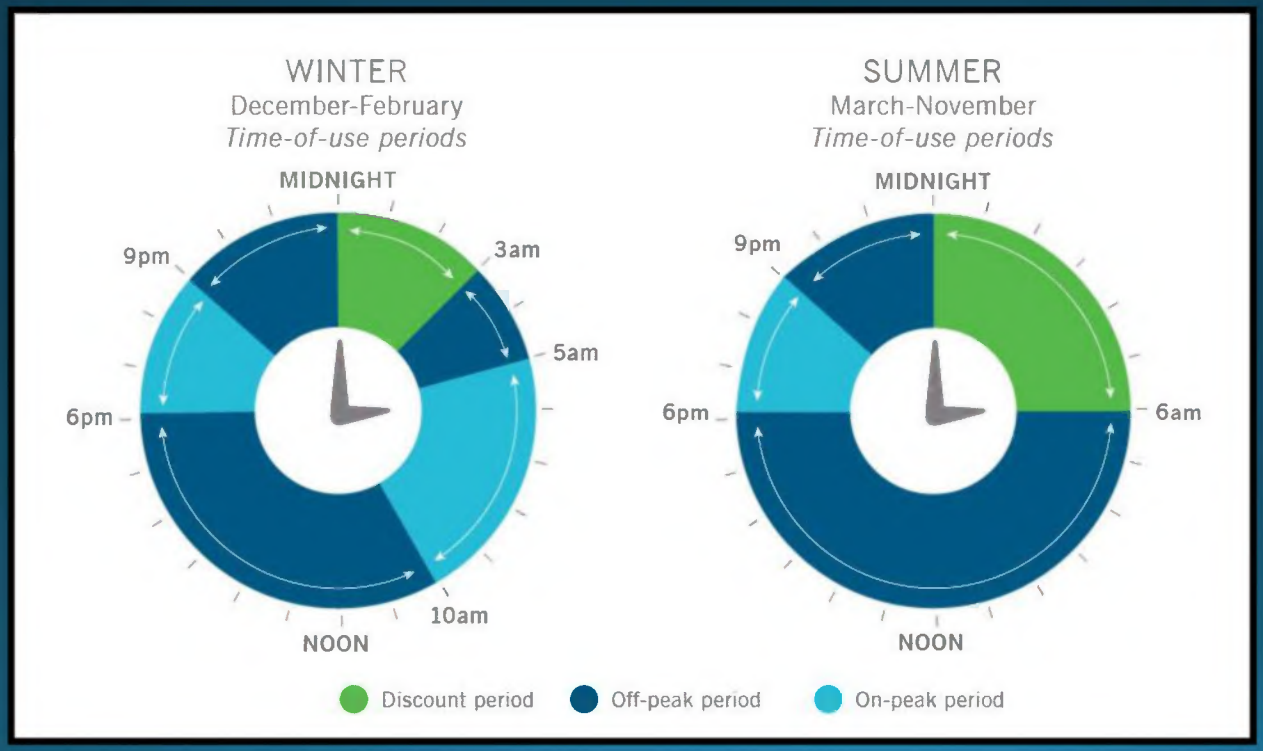
- Real natural gas costs down!.....
- Henry Hub US natural gas cost per EIA, 8/2016 Vs. 8/2024: -29.8%
- DEF 9 year 2016-2025 increases applied: +44.66%
- CPI increase since Aug. 2016 +30.2%
- DEF spending on 20 utility-scale solar farms since 2017: $2.7B
- Net summer/winter average net MW energy solar capacity 387MW
- Capital cost of this capacity, if Nat. gas combined cycle: $400M
- Acres consumed, 20 DEF solar farms: 14,000
- Acres consumed, 387 MW combined cycle powerplant 20
- **DEF fossil generation mix change 8/2019 versus 8/2024 + 1.3%!!**
- Coal/gas/oil was 87% of fuel mix 8/19; Coal, gas oil 88.3% of fuel mix 8/2024.

Next Ten Years DEF Green Plan:

- 44 more solar farms at $6.4B investment, including $120M Battery energy storage system. (890 Net MW; if CCGT would cost $1.3B, yield 24 hr. a day power)
- 32,421 more acres of land used
- DEF self acknowledges in 2024 ten-year site plan electricity costs will grow so high consumer power use will decline nearly 8%.
- DEF further acknowledges substantial winter and summer peak reserve margin decline to occur.

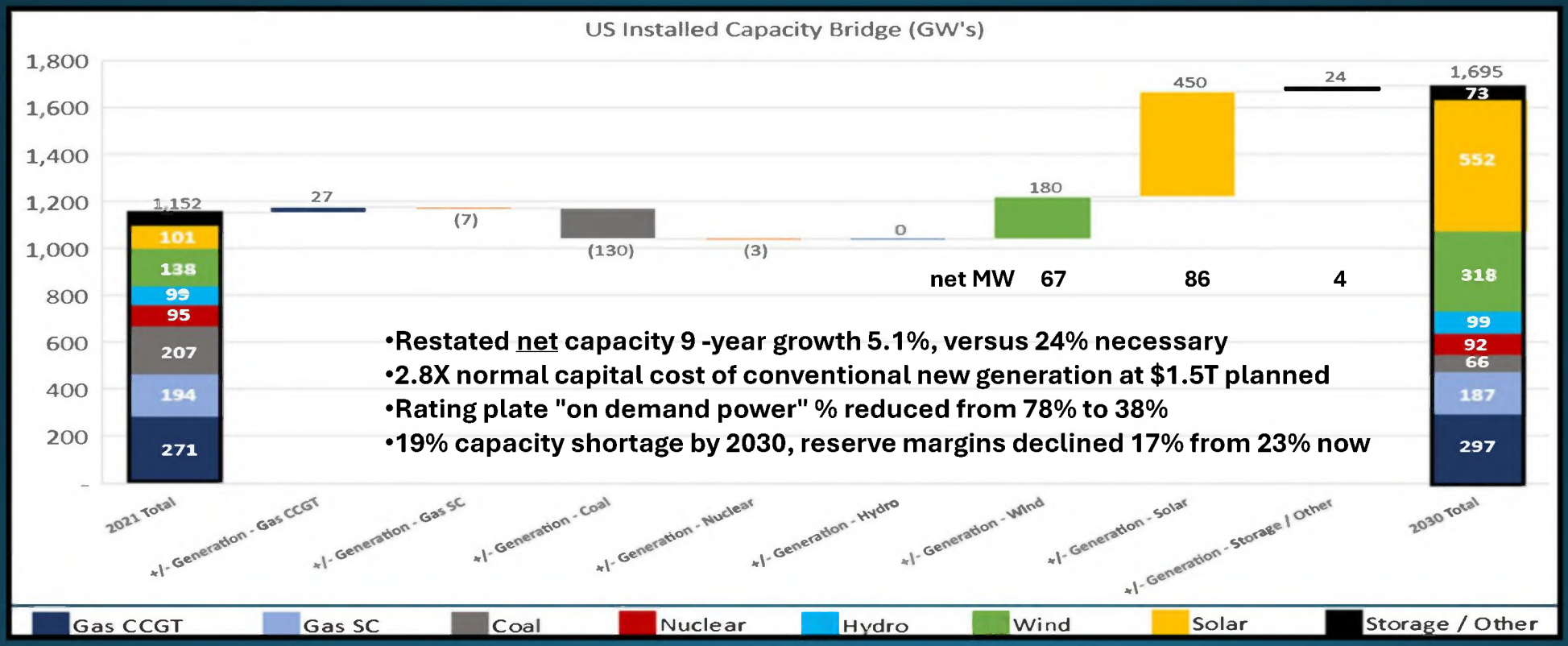
Rate Revisions for 2025

As a part of Duke Energy Florida's rate agreement approved by the Florida Public Service Commission in August 2024, a number of new benefits were introduced in January 2025, including a few enhancements to our time-of-use rates, providing customers greater opportunities for savings.



Source:
Duke Energy

Consensus US Fast Transition to Renewables



HIS Markit, EIA, and utility integrated resource plans data

- 315 acres, 2520 MW, supports 24 hr. a day electricity needs of 2.5M residents, **Cost: $2.2B**
- Solar farm this size would provide only a net 10 MW & support 8,000 residents electrification, but for only 4.8 hrs./day
- 2520 MW solar farm would cost **$11.5B**. (operating 4.8 hrs./day)

Renewables (Wind, Solar) Relative Land Use Footprint

	Daily availability	Acres
1000 MW continuous duty nuclear plant	24 Hrs.	640
1000 MW combined cycle plant	24 Hrs.	60
Equivalent annual kWh capacity wind farm	7.7 Hrs.	230,400 (i)
Equivalent annual kWh capacity solar farm	5 Hrs.	30,197(ii) – 22,877 Football Fields!

The same electrical generation capacity in annual kWh is equalized in the above examples, but the intermittency issue is still unresolved.

(i) FPL *West County Energy Center published data*

(ii) FPL, Duke Energy Integrated resource plans & published solar farm announcements

High LCOE, Capex of "Resource Constrained" Renewable Electricity Resources

Cost/kWh

Dependability	LCOE (iv)	Capex	Capacity (i) Factor	ELCC %
Offshore wind	$456 (i)	$856 (iii)	44%	18%
Onshore wind	$222 (ii)	$760 (i)	34%	16%
Utility-Scale Solar	$219 (ii)	$676 (iv)	20%	42%
Advanced Combined Cycle	$36	$115	95%	100%

(i) US DOE EIA data

(ii) 10-year life battery storage applied to onshore wind, solar; vs. 30-year CCGT DOE EIA

(iii) Dominion Energy Virginia offshore project announcement

(iv) FPL and Duke Energy announced project costs.

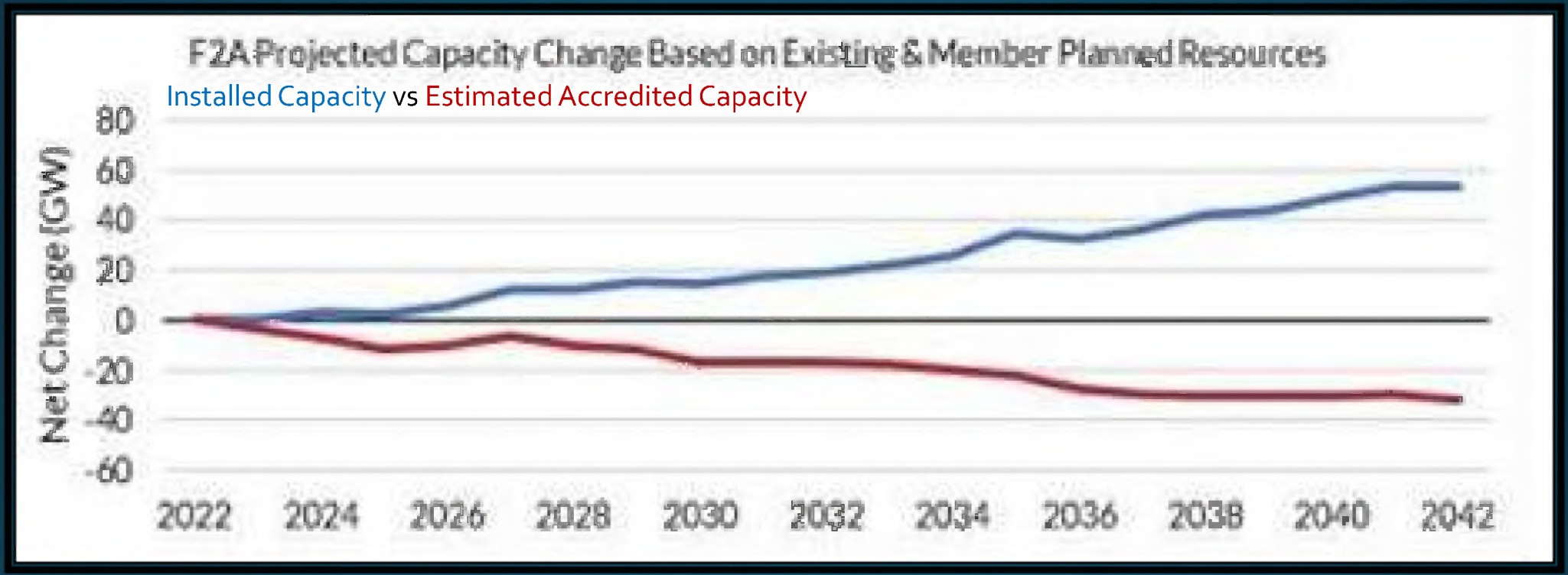
Source: Vestas

New capacity additions, 2020-2024 US electric power generation additions: ASSET CHURN

Generation resource	Capex $	"rating plate" GW	Capacity factor	Net capacity GW	$/net GW added (A)
Solar	$228B	140GW	24%	33.6	$6.8B
Wind	109B	61GW	33%	20.1	5.4B
Battery Energy storage	9B	9GW	11%	1.0	9.0B
Combined cycle gas	19B	19GW	93%	17.7	$1.1B
Nuclear (Vogtle)	32B	2.2GW	94%	2.1	$15.2B
Total all new capacity additions	**$397B**	**221.2GW**		**74.5GW**	**$37.5B**
Coal		(39.9 GW)	86%	(34.3)	
Natural gas, oil		(2.4 GW)	93%	(2.2)	
Nuclear		(3.2GW)	94%	(3.0)	
Total shutdowns base load		**(45.5GW) (C)**		**(39.5GW)**	
Total net additions, all	**$397B**	**185.7GW**		**35.0GW(B)**	**$37.5B**

- **(A) Using published costs per/MW, adjusted for respective published EIA lives of solar wind at 30 years, BESS at 10 years, combined cycle at 45 years, and nuclear power at 60 years. Approx. 9X the cost for example per MW installed of combined cycle natural gas, dominantly installed in the US 2000-2017.**
- **(B) +3.2% cumm. Five-year growth over 1100GW 12/31/2019 US installed base, .64% per year.**
- **24.3 GW net reduction over five years in baseload, constant duty assets.**

Net Power Shortfall in the MISO (15 States) New 2025-3036 New Capacity Plan



Source: MISO Futures Report Series 1A

OMS-MISO survey results indicate tight resource capacity in the upcoming planning year

Continued reforms needed to reliably manage the resource transition

For Immediate Release

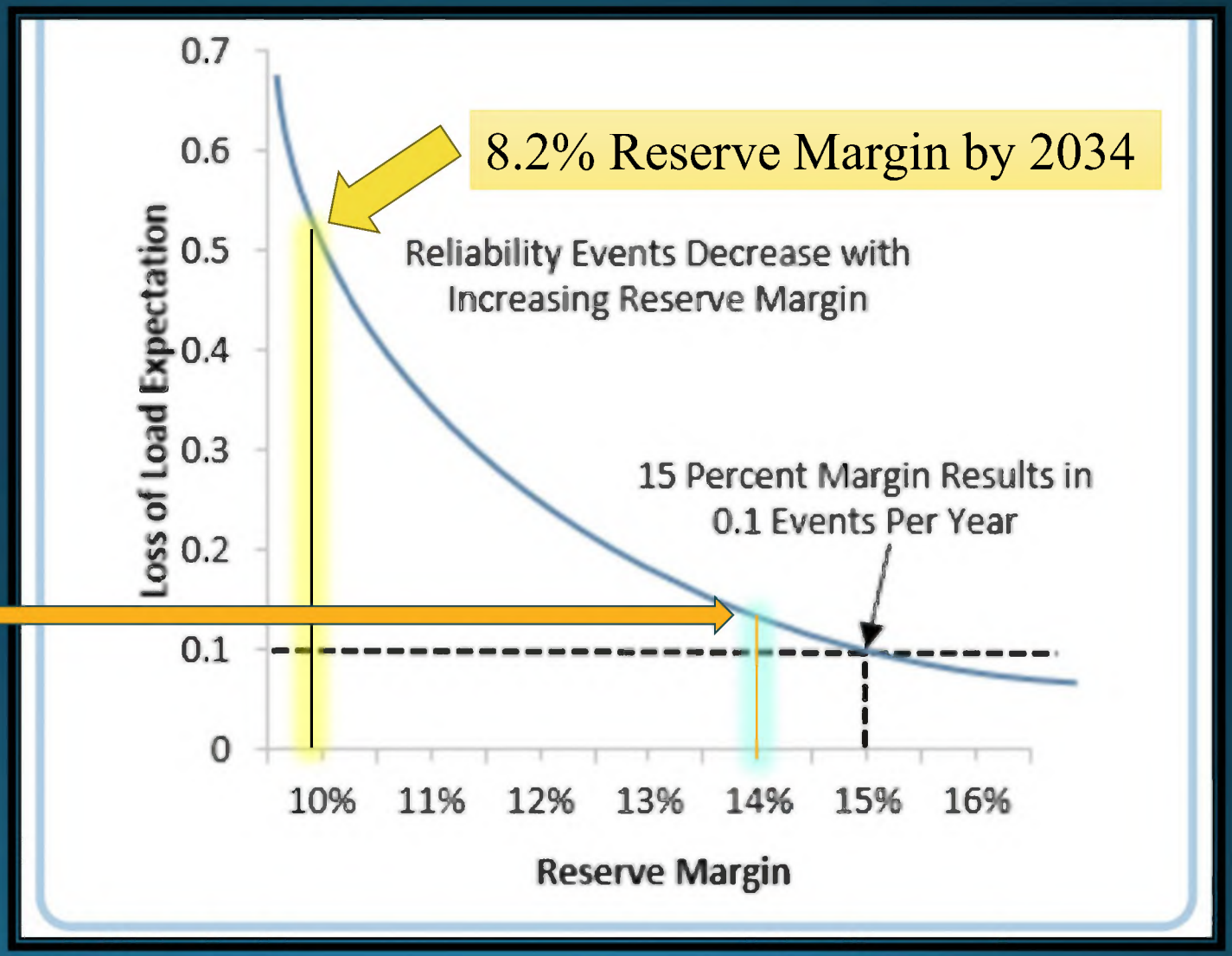
June 20, 2024

Media Contact

Brandon Morris

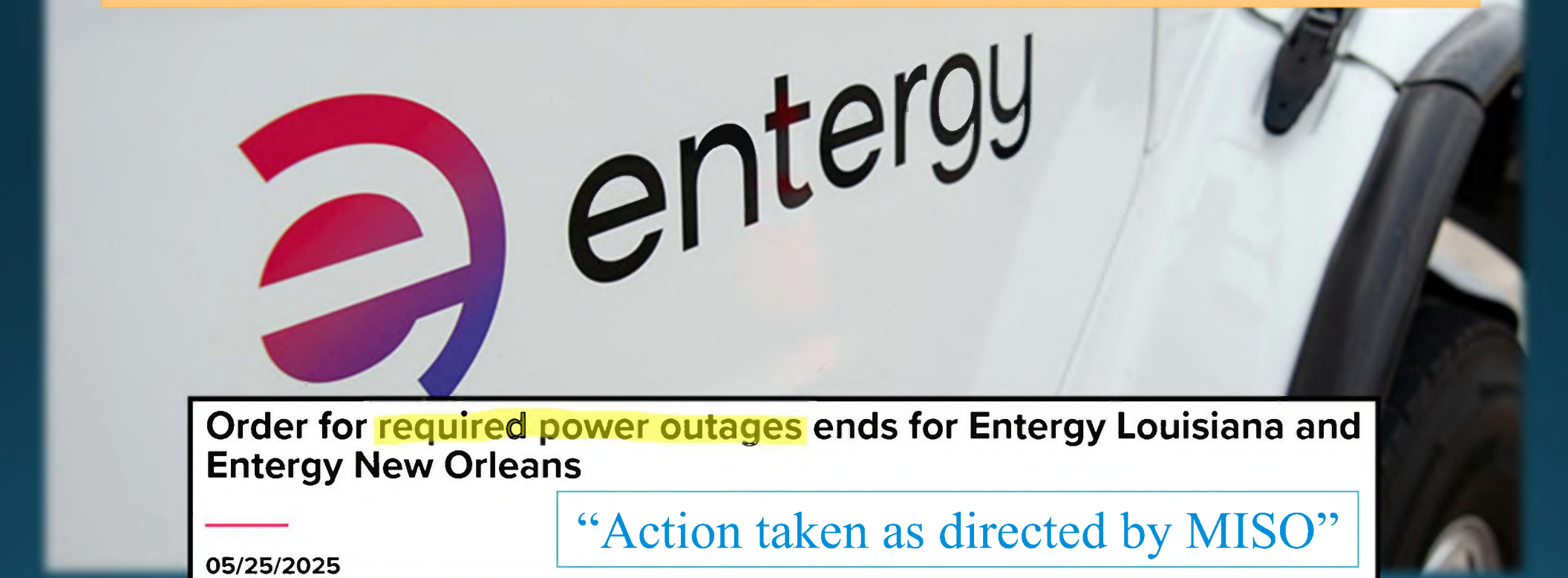
Relationship Between Reserve Margin Decline and Loss of Load Probability

Where we have now "progressed." Exponential increase in brownouts from here forward.



Source: The NERC 2014 Long Term Reliability Assessment

MISO Shortages/Unreliability Issues Now Appearing… "Loadshedding Event"



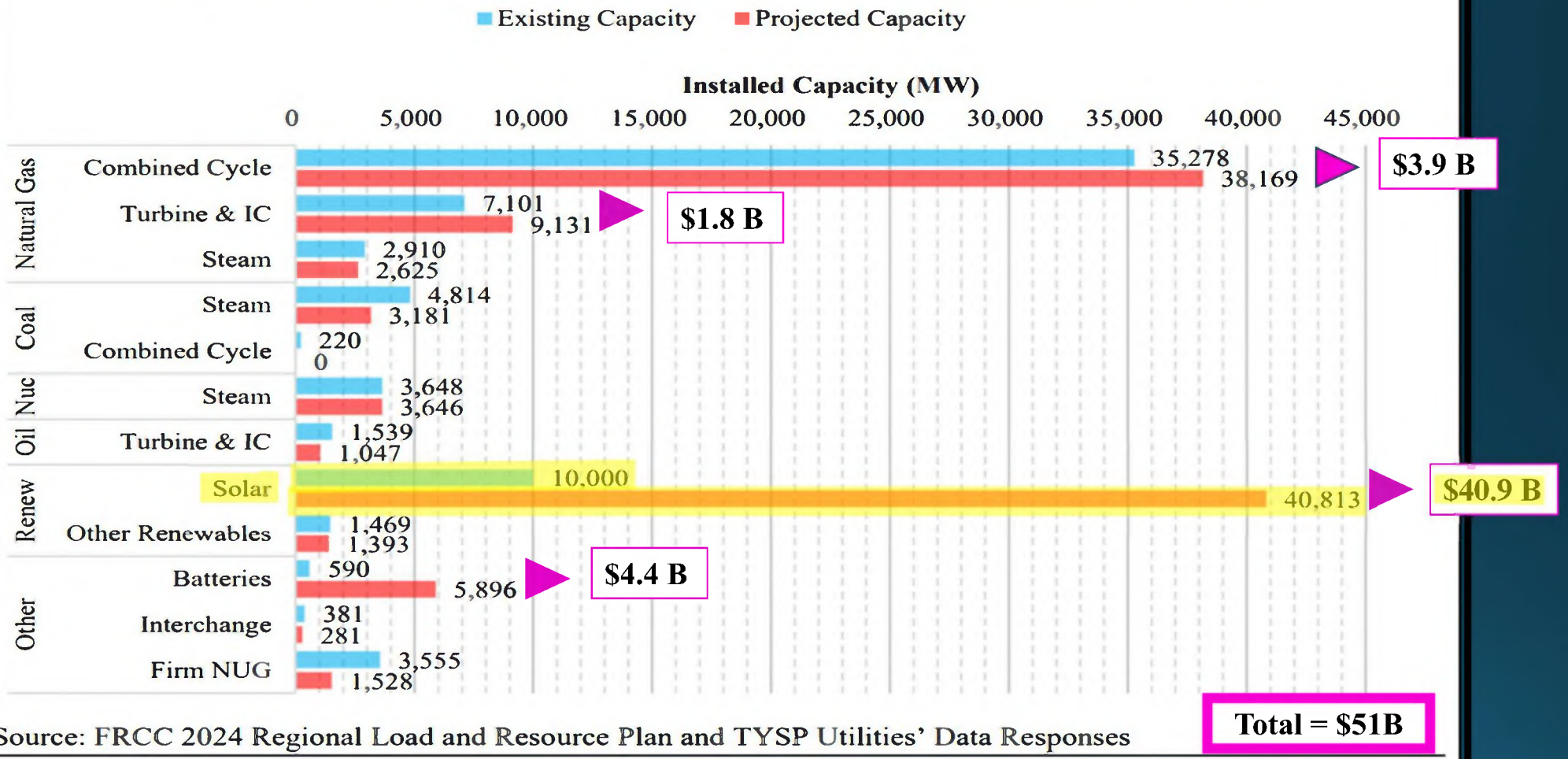
Order for required power outages ends for Entergy Louisiana and Entergy New Orleans

05/25/2025

"Action taken as directed by MISO"

Source: entergynewsroom.com

Figure 3: State of Florida - Current and Projected Installed Capacity

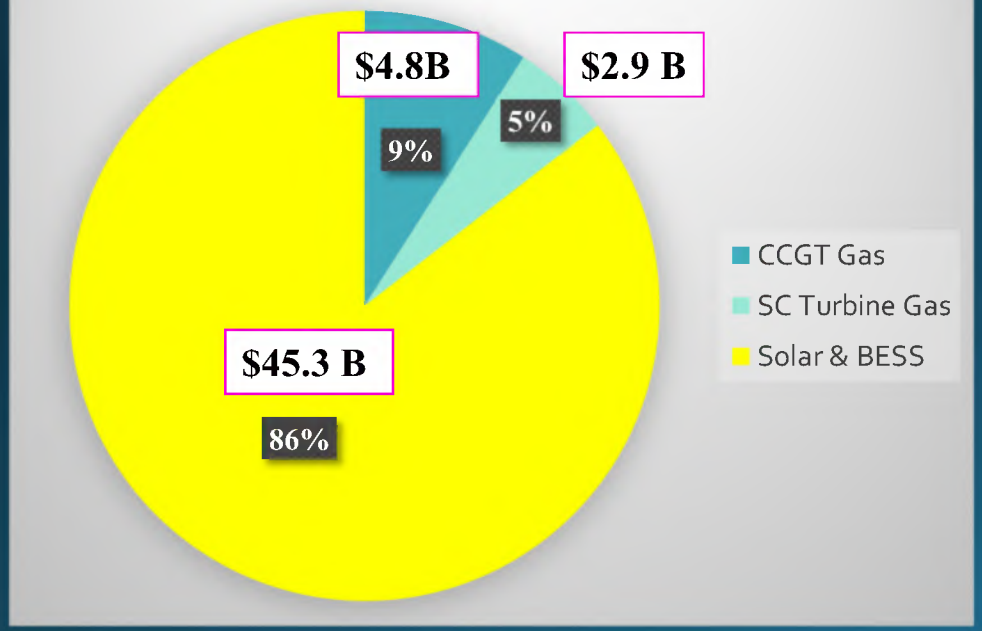


Source: FRCC 2024 Regional Load and Resource Plan and TYSP Utilities' Data Responses

Secondary Source: Review of the 2024 Ten-Year Site Plans of Florida's Electric Utilities

SERC – FL 2024-2034 Plan Cost/Energy Yield Comparison

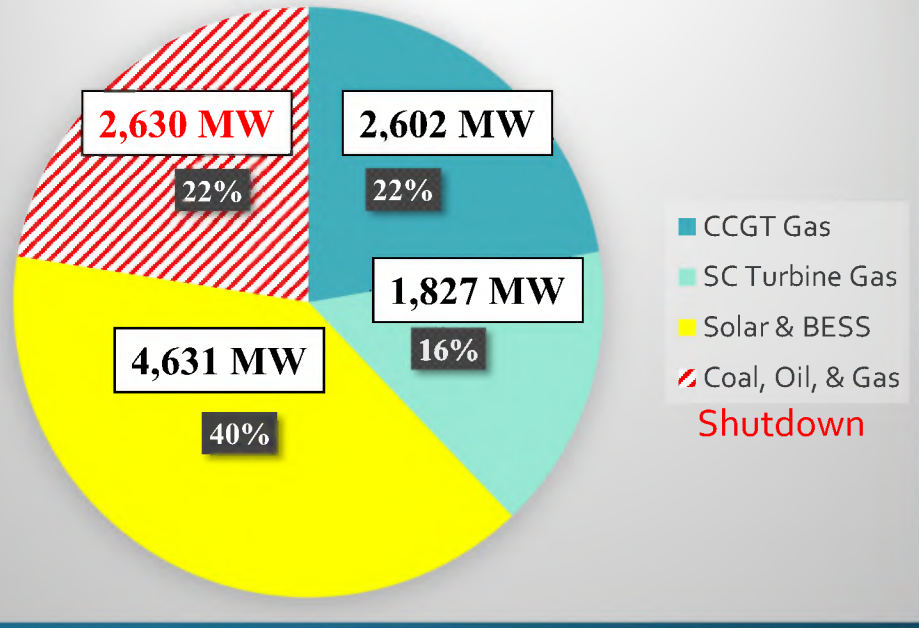
Ratepayer Capital Cost



Total = $53 B, 77%
Higher Than '13 - '23

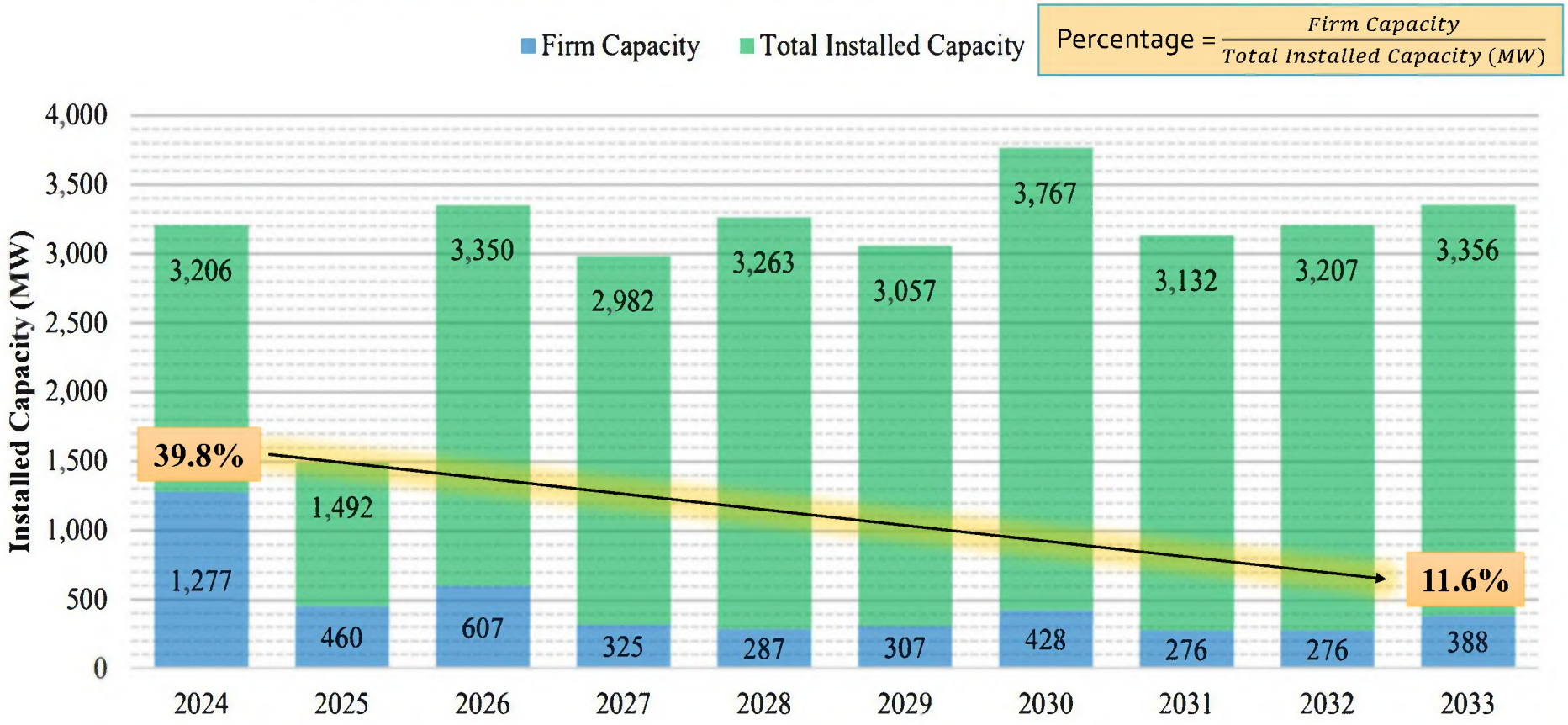
Part-Time/Variable Energy
Capex Cost: $48.2 B, 91%

Firm Capacity



MW Net Energy Value Added (Firm Capacity): 9,060 MW

Figure 12: TYSP Utilities - Planned Solar Installations



Source: FRCC 2024 Regional Load and Resource Plan and TYSP Utilities' Data Responses

Secondary Source: Review of the 2024 Ten-Year Site Plans of Florida's Electric Utilities