

2021 SENATE ENERGY AND NATURAL RESOURCES

SCR 4012

2021 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee Peace Garden Room, State Capitol

SCR 4012
2/18/2021 AM

A concurrent resolution to establish a state policy to support the reliability and resilience of the electric grid, ensure price transparency to consumers in electric markets, and incentivize carbon capture utilization and storage as an alternative to preserve dispatchable thermal electric generation and its associated benefits.

Chairman Kreun called the hearing to order at 8:30am
Senators Bell, Piepkorn, Patten, Roers, Schaible, and Kreun all present

Discussion Topics:

- Amendment
- MISO and Federal Power regulation
- Pricing and reliability
- Climate Change and its effect on weather

Senator Wardner, District 37, introduced the bill and testified in favor #6900 (8:31am)

Representative Pollert, District 29, testified in favor (8:45am)

Michael Nasi, Life Power: Initiative, Senior Advisor, testified in favor #6892 (8:47am)

Anna Novak, Hazen Resident, Testified in favor (8:49am)

Scott Skokos, Dakota Resource Council, Executive Director, Testified Opposed #6872 and Neutral #6959 (8:49am)

Additional written testimony:

Levi Andrist, WIND, Lobbyist, Testified in Favor #6877

Carlee McLeod, USND, Testified in Favor #6883

Zac Smith, NDAREC, Director of Communications and Government Relations, Testified in Favor #6890

Ryan Warner, Lightspring, Testified Opposed #6891

Senator Bell, District 33, Testified Neutral #6952

Chairman Kreun called the hearing to a close at 8:58am

Dave Owen, Committee Clerk

4012 Amendment Draft

Whereas the citizens of the state benefit from robust and diverse electric generation from North Dakota's natural resources, connected to surrounding regions by the electrical grid;

Whereas, the region's abundant sources of dispatchable generation sources, coal and natural gas, provide value in ensuring reliability and resiliency in the electrical grid.

Be it resolved therefore, that it is the goal of North Dakota that the electric providers operating in the state maintain and ensure access to reliable and cost-effective generation resources, including coal, natural gas, hydro, wind, solar, battery technology, and other future technologies.

Be it further resolved that the legislative assembly urges regional transmission organizations to develop market signals or pricing mechanisms that attribute appropriate financial value to dispatchable generation resources to address the intermittency of renewable generation resources and ensure reliability and resiliency of the electrical grid.



THE IMPORTANCE OF ELECTRIC RELIABILITY & RESILIENCE – *Houston, We Have a Problem. . .*

Mike Nasi

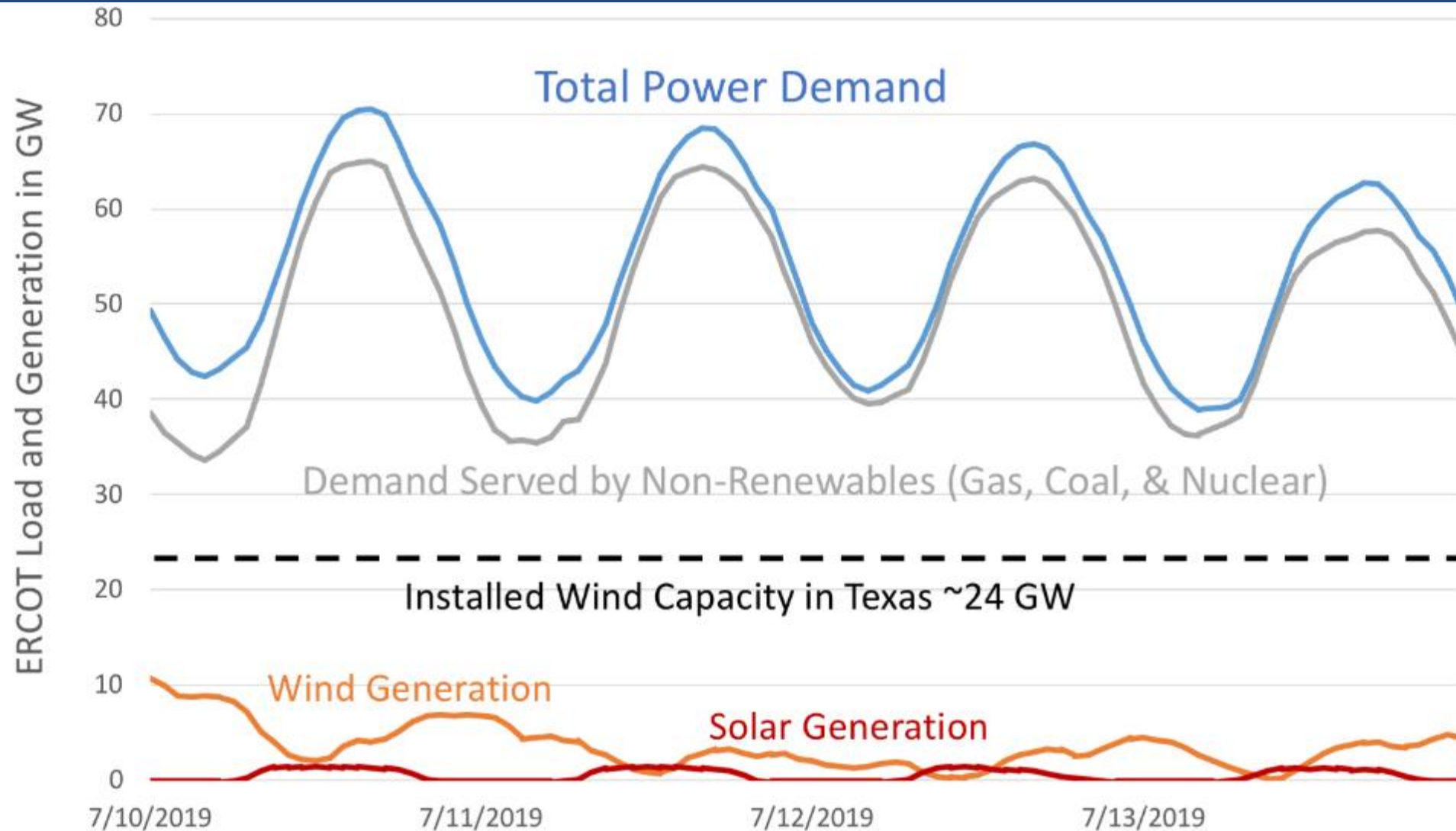
Senior Advisor, *Life:Powered*

Testimony Before the North Dakota

February 18, 2021

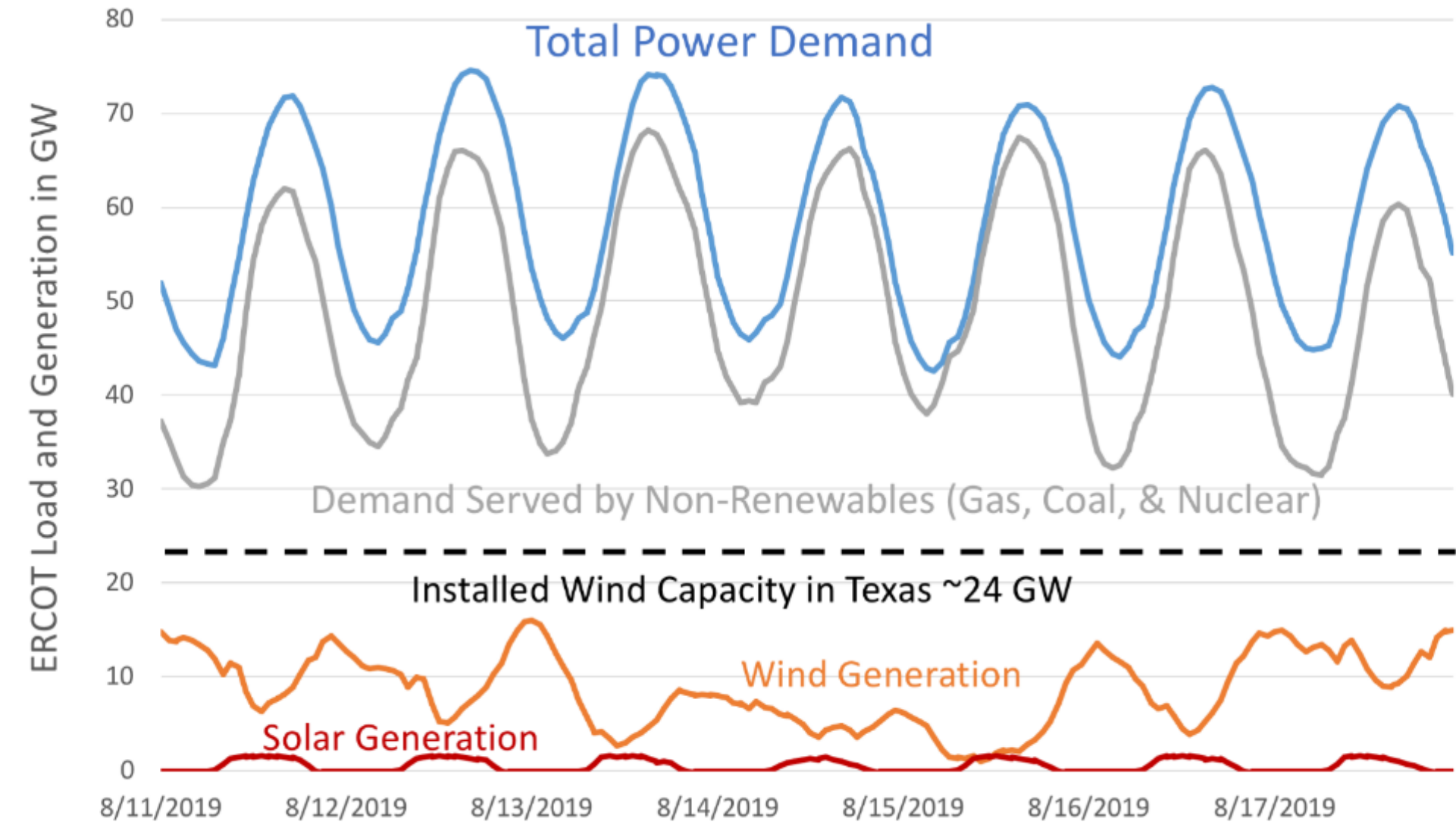
Testimony ID#6892

Off-Peak Exuberance vs. Peak Reality – TX (7/19)



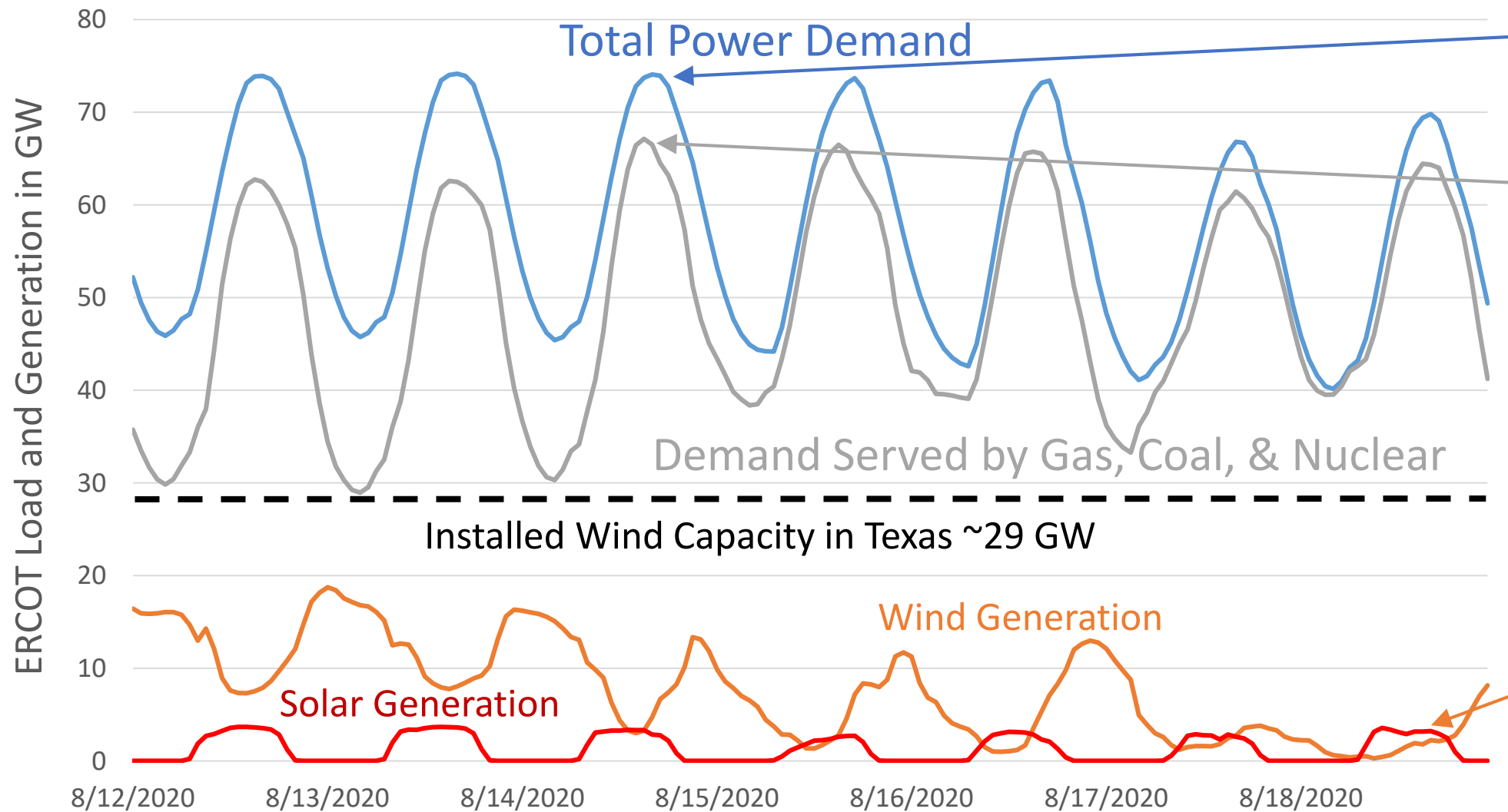
Source: Life:Powered (based on ERCOT market data)(2019)

Off-Peak Exuberance vs. Peak Reality – TX (8/19)



Source: Life:Powered (based on ERCOT market data)(2019)

Dodging a Bullet Last Summer: August 12 – 18, 2020



Aug. 14: Total demand = 73,740 MW at 4 PM

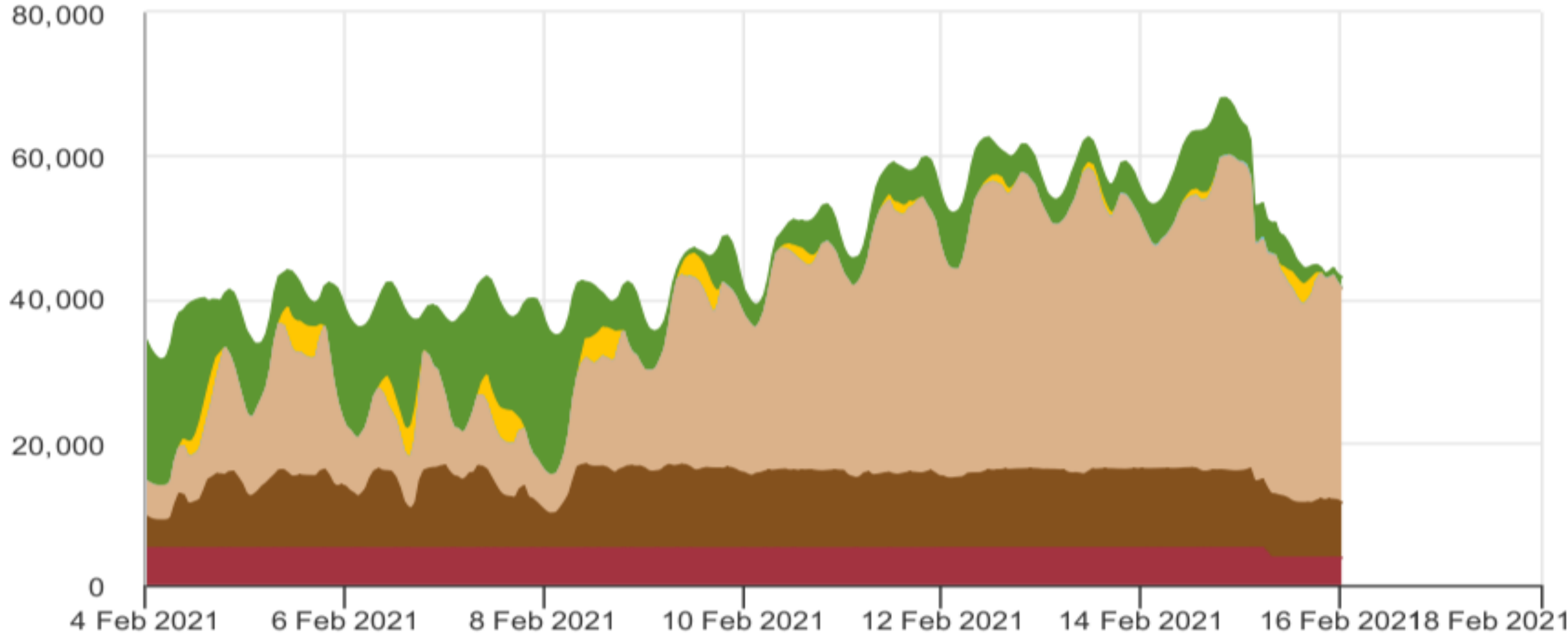
Demand served by gas, coal, and nuclear = 67,129 MW at 4 PM

Compare to Aug. 13, 2019 emergency, where gas, coal, and nuclear served 68,268 MW

Add 2,500 MW of demand (pre-COVID forecast) or 1,500 MW less wind (as on Aug. 18), and TX would have had a major emergency.

The Bullet Hit This Time: February 15 – 17, 2022

megawatthours

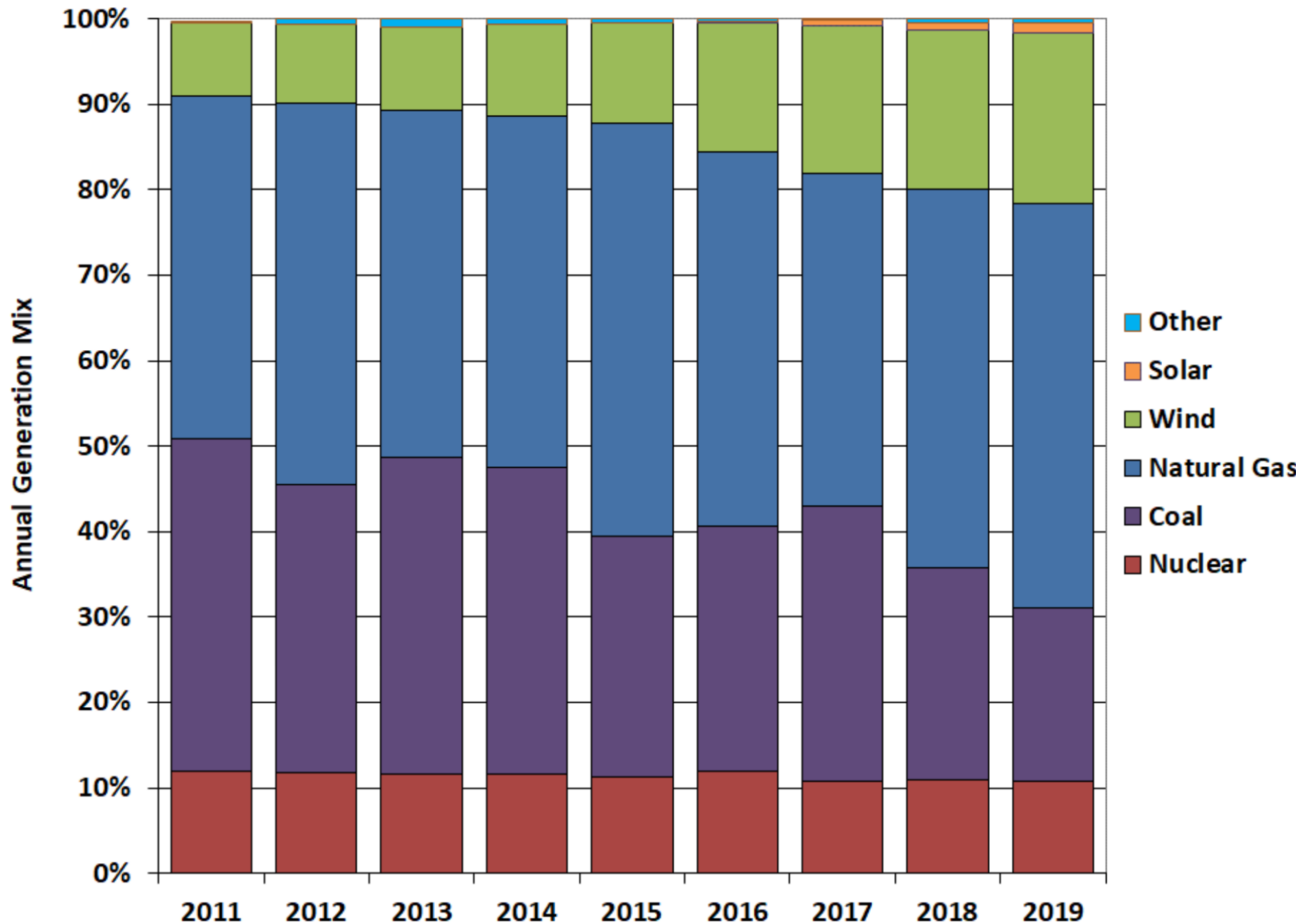


Wind Solar Hydro Other Natural gas Coal Nuclear



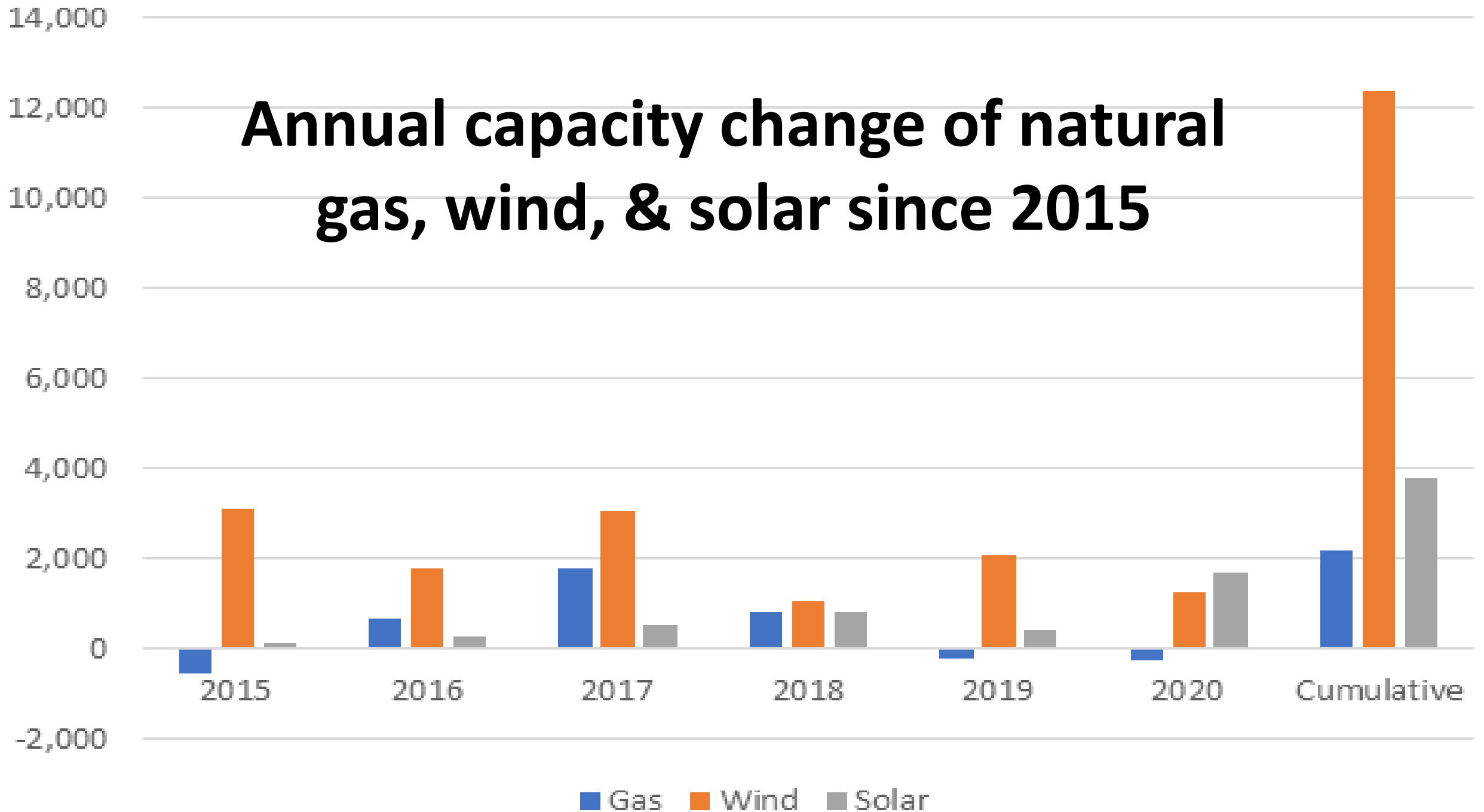
Source: U.S. Energy Information Administration

How Did the Texas Market Go From The Envy of the World to This Cautionary Tale?



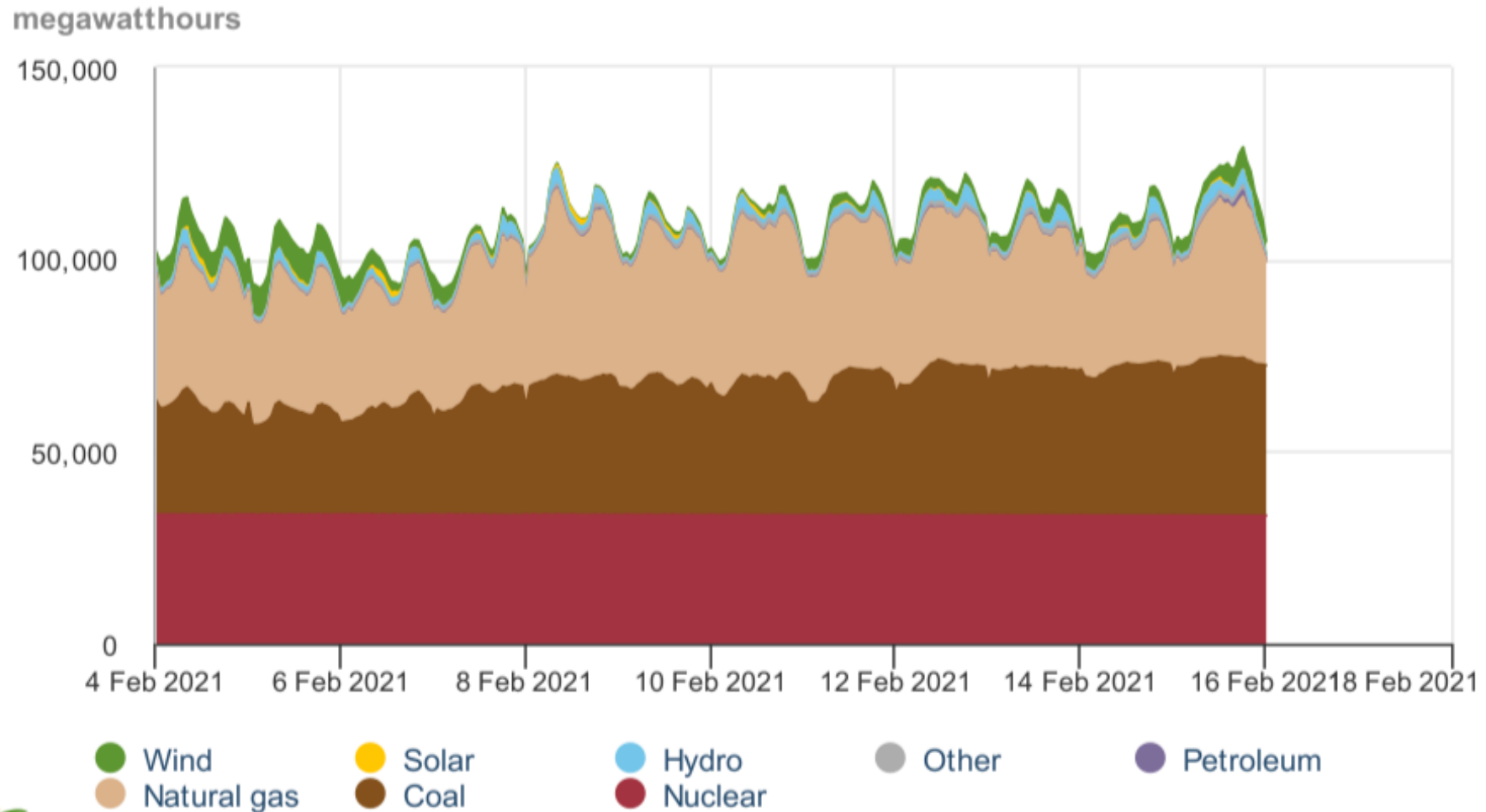
SOURCE: Texas Independent Market Monitor

Annual capacity change of natural gas, wind, & solar since 2015



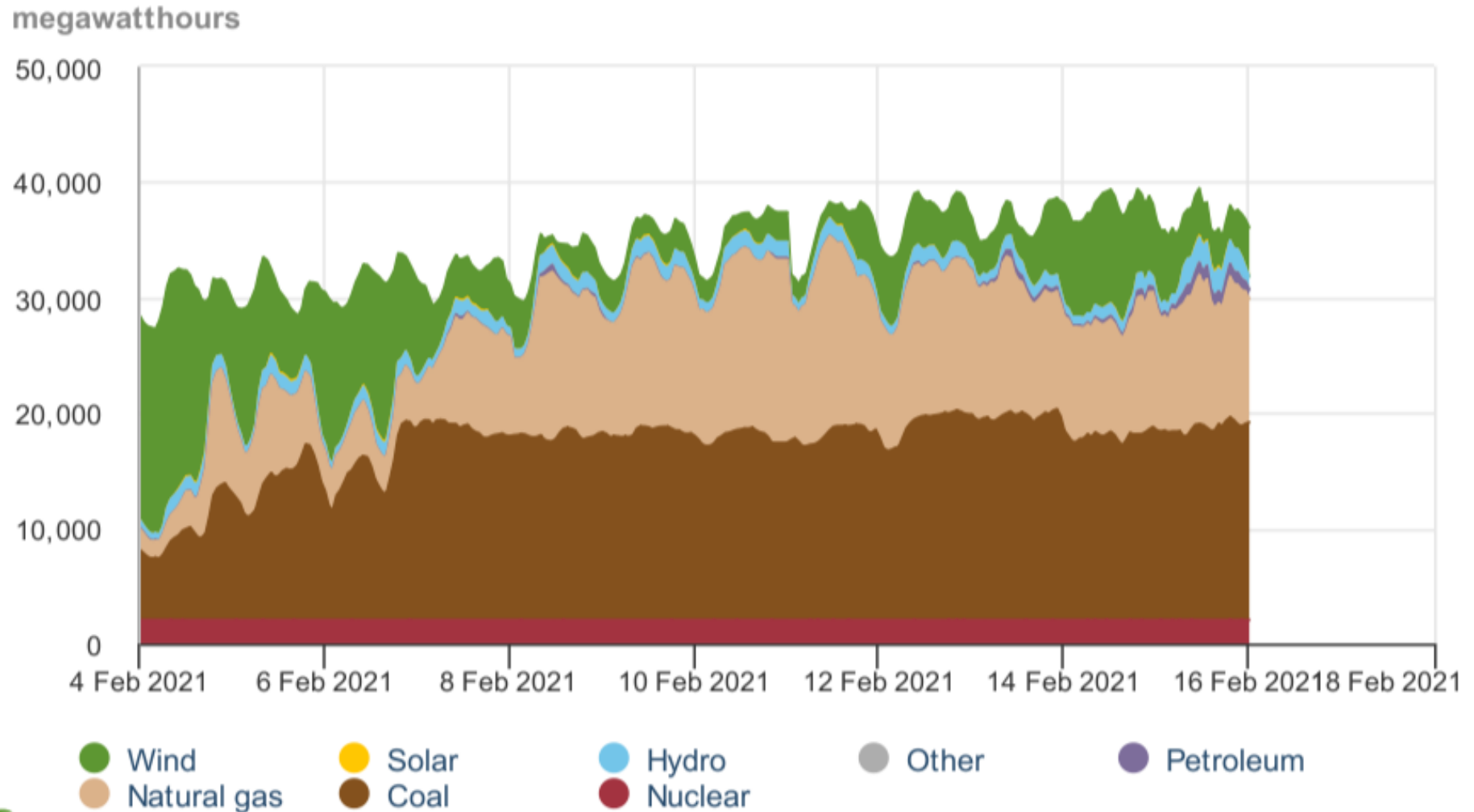
THE CAUTIONARY TALE IS EVERYWHERE

PJM Interconnection, LLC (PJM) electricity generation by energy source 2/4/2021 – 2/17/2021, Eastern Time



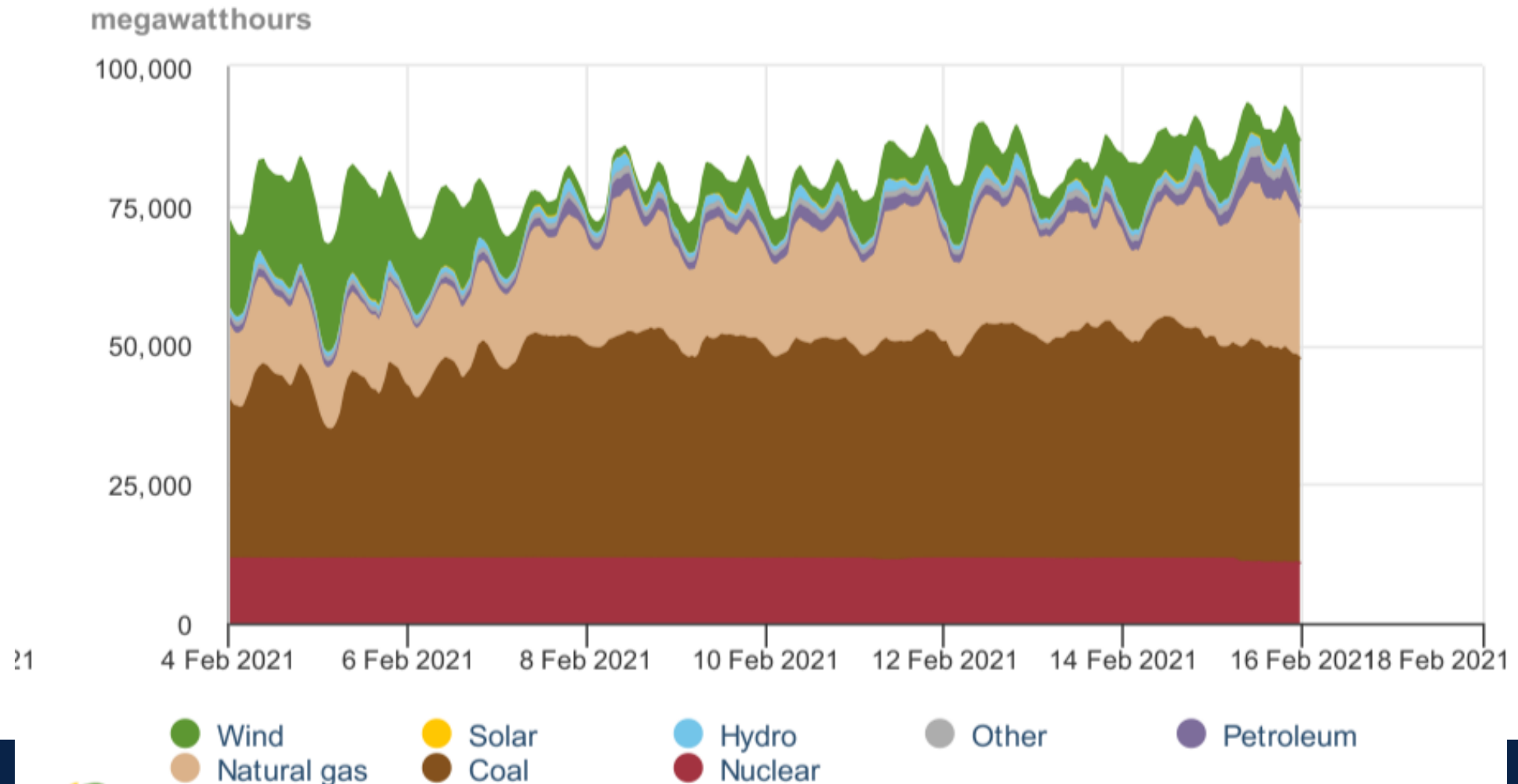
THE CAUTIONARY TALE IS EVERYWHERE

Southwest Power Pool (SWPP) electricity generation by energy source 2/4/2021 – 2/17/2021, Central Time



THE CAUTIONARY TALE IS EVERYWHERE

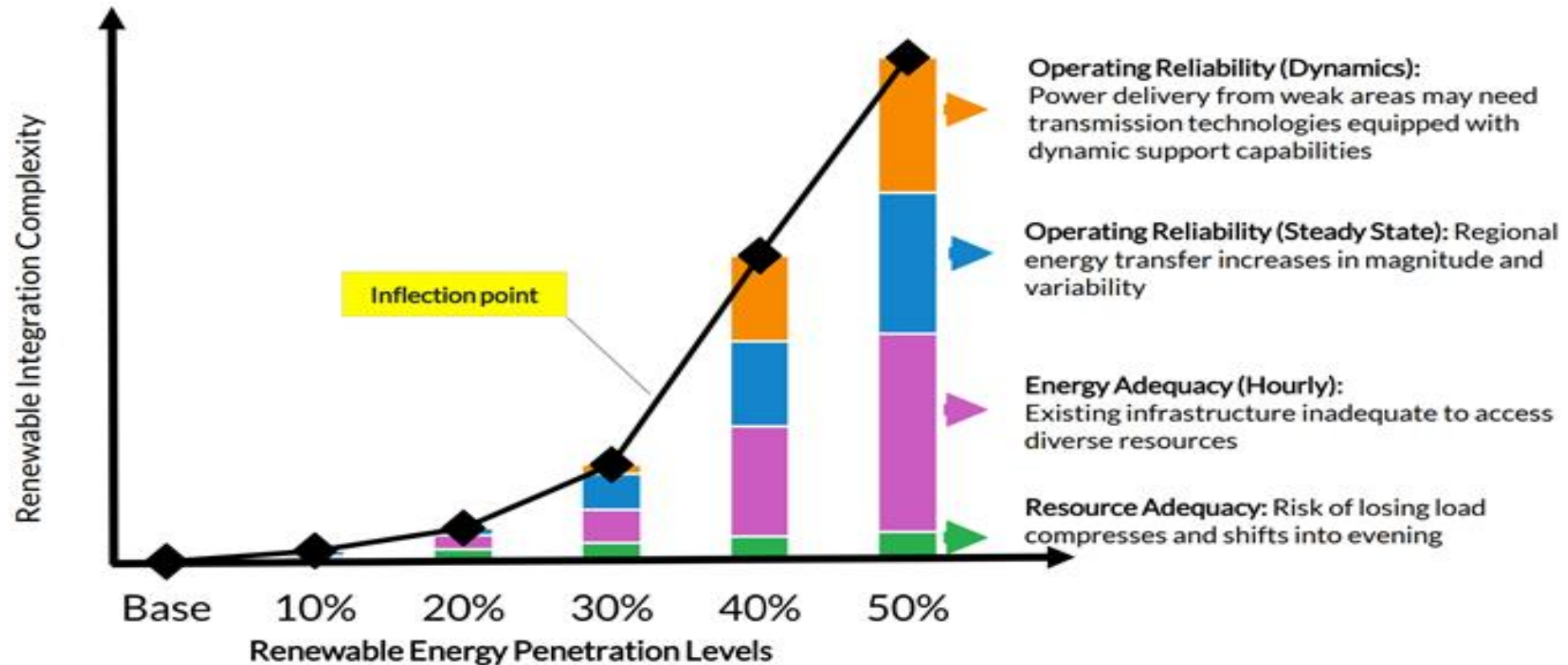
Midcontinent Independent System Operator, Inc. (MISO) electricity generation by energy source 2/4/2021 – 2/17/2021, Central Time



Source: U.S. Energy Information Administration

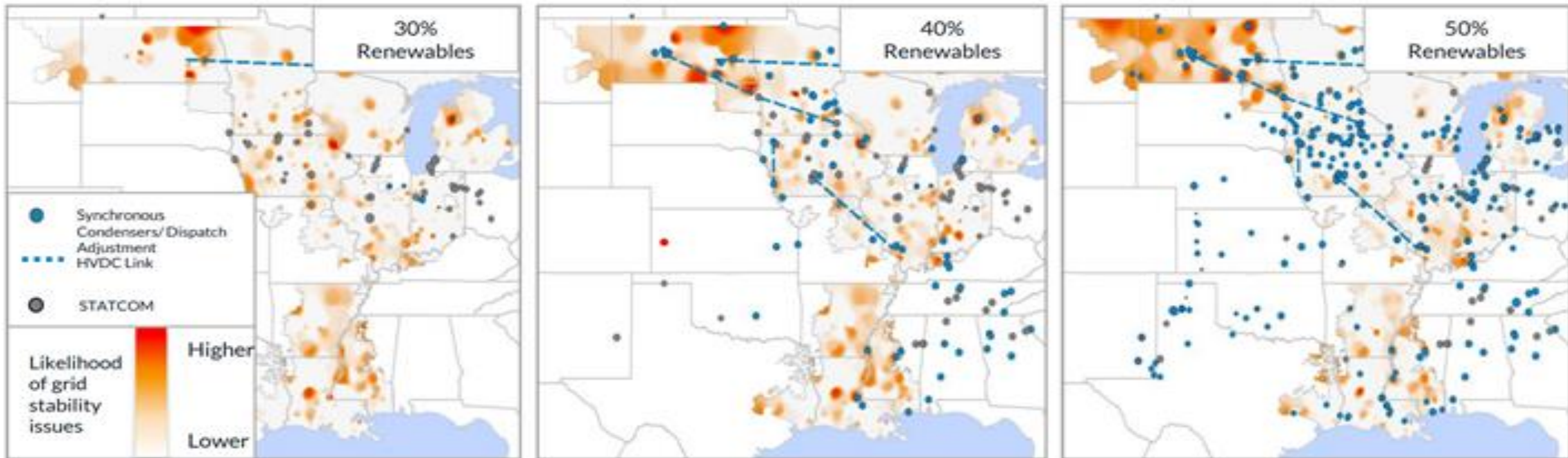
MISO Warning of System Stability Issues

These resource changes will significantly impact grid performance with complexity increasing sharply after 30% penetration levels



MISO Warning of System Stability Issues

Beyond 30%, system-wide voltage stability is the main driver of dynamic complexity and requires transmission technologies equipped with dynamic-support capabilities



* Maps reflect cumulative issues/solutions across milestones

Okay, Lesson Learned, Now What Do We Do?

State-Established Reliability (and/or “Firming” Requirements)

- Like renewable portfolio standards, but focused on grid reliability and resilience – must be uplifted to RTOs
 - *(MISO recently confirming that they are “policy takers, not makers”)*
- Non-dispatchable resources could be made to procure dispatchable power to mitigate against the reliability/resilience penalties they impose on the grid
- In states with aggressive low carbon goals, CCUS, nuclear, and batteries can compete on level playing field.



REMEMBER TO ASK: WHY WOULD WE ENDANGER LIVES & ENERGY SECURITY

When Domestic Power Sector Carbon Reductions Don't Move the Needle

2050 IMPACT OF DECARBONIZING ELECTRICITY:

- NO COAL FLEET = 2.06 ppm (0.4%) reduction in CO₂ concentration.
- NO FOSSIL FLEET = 3.3 ppm (0.7%) reduction in CO₂ concentration.
- Modeled global temperature reduced by a mere 0.016°C.

2050 IMPACT OF DECARBONIZING ENTIRE U.S.:

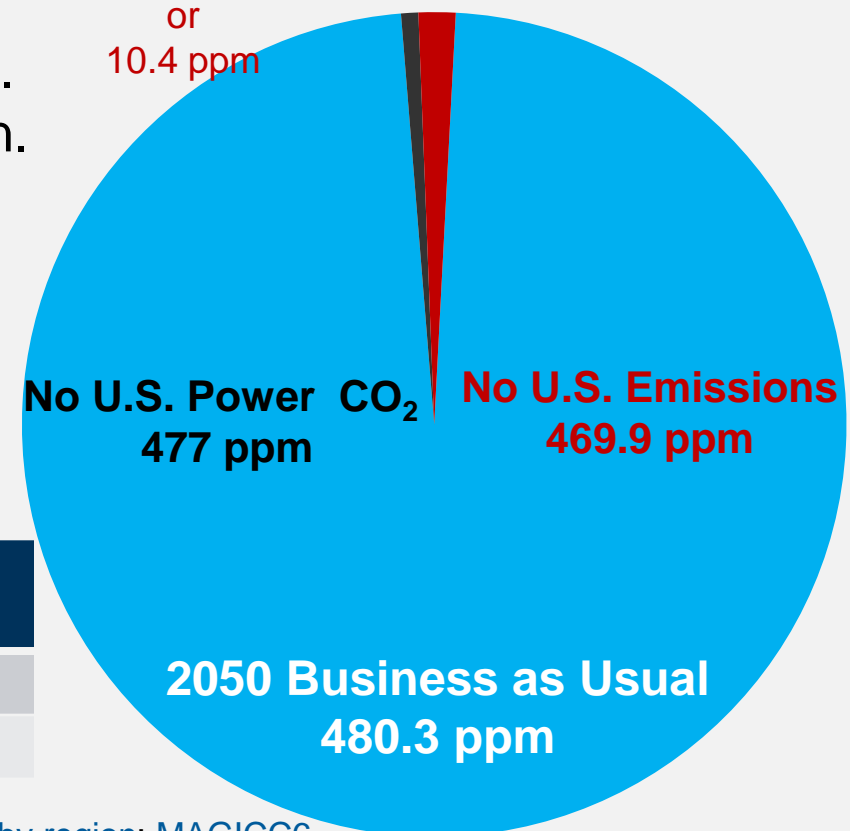
- 10.4 ppm (2.2%) reduction in CO₂ concentration.
- Modeled global temperature reduced by 0.053°C.

Modeled CO₂ Reduction

3.3 ppm

or

10.4 ppm



CO ₂ Emissions	2010	2020	2030	2040	2050	% Change
World	30,834	34,972	36,398	39,317	42,771	+38.7%
U.S.	5,571	5,260	4,839	4,867	5,071	-8.9%

Sources: Energy Information Administration, International Energy Outlook 2017, [World carbon dioxide emissions by region](#); [MAGICC6 Model](#); Intergovernmental Panel on Climate Change Fifth Assessment Report Working Group I, [Summary for Policymakers](#); National Oceanic and Atmospheric Administration [Global Land and Temperature Anomalies](#).

NEW ANIMATED EDUCATIONAL VIDEO SERIES ON ELECTRICITY & ENVIRONMENTAL TECHNOLOGY (www.LifePowered.org)



VIDEO 1 - Energy 101: Why We Need Electricity

<https://youtu.be/ZfrBnddgFAU>

VIDEO 2 - Energy 101: The Electric Grid

<https://youtu.be/WiMtU6O1SxM>



VIDEO 3 - Energy 101: Where Electricity Comes From

<https://youtu.be/AKuoleupGHc>

VIDEO 4 - Energy 101: Energy Density

<https://youtu.be/6d-HGzZHPG4>

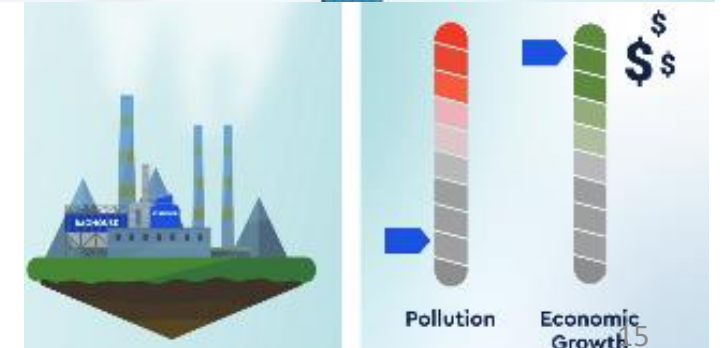


VIDEO 5 - Energy 101: Mining and Rare Earths

<https://youtu.be/yu3mkFpiGmo>

VIDEO 6 - Energy 101: Environmental Technology

<https://youtu.be/aodsngzbZqA>





QUESTIONS / FOLLOW-UP?

Mike Nasi

Senior Advisor, *Life:Powered*

mnasi@jw.com

512-736-9200

Testimony of Dakota Resource Council
Senate Concurrent Resolution 4012
February 18th, 2021

1 Chairman Curt Kreun & members of the committee, my name is Scott Skokos and I am testifying
2 on behalf of Dakota Resource Council and our members. Thank you for allowing me to testify today in
3 opposition of SCR 4012.

4 Dakota Resource Council (DRC) is a non-partisan grassroots group of landowners, ranchers,
5 farmers, and other citizens. A key part of our mission is to promote the sustainable use of North Dakota's
6 natural resources.

7 We stand in opposition to SCR 4012 for several reasons, but the primary being that it creates a
8 duplicate and unnecessary policy framework for responsibilities already overseen by Regional
9 Transmission Organizations (RTO) and Independent System Operators, (ISO) such as Midcontinent
10 Independent System Operator (MISO) and Southwest Power Pool (SPP). These authorities oversee the
11 reliability and resiliency of the electric grid. RTOs and ISOs were created to reduce government oversight
12 and increase market competition. RTOs and ISOs are already addressing stakeholder concerns around
13 reliability which is the proper channel to express concerns. According to the MISO 2020 Forward Report,
14 the top strategy imperatives for stakeholders were "1) Establish future reliability criteria that reflect
15 increasing uncertainty across all hours of the year. ... 2) Redefine markets and ensure prices reflect
16 underlying conditions such as scarcity and the value of flexibility. 3) Update the investment approach for
17 transmission by building off the value identified in new market constructs and reliability criteria to
18 improve deliverability of key grid needs. 4) Enhance communication and coordination across the
19 transmission and distribution interface – to address today's challenges with Load Modifying Resources
20 and with an eye toward emerging tech and active demand." The report also includes an action plan for
21 those interested in seeing how MISO plans to address these strategic imperatives.¹

22 According SPP, they act as the "reliability coordinator" and are "tasked by the North American Electric
23 Reliability Corporation's Standard IRO-014-3 to preserve the reliability benefits of interconnected
24 operations and coordinate such that none may adversely affect another's area of jurisdiction."² On page 1,
25 line 7, SCR 4012 states "maintaining a reliable and resilient grid with a combination of resources". As
26 evidenced above, that is already the responsibility for RTOs and ISOs, not for individual states. Let
27 RTOs, ISOs, and utilities figure out the best mix. MISO is in the process of assigning the appropriate
28 value to reserve markets, making it unnecessary for government made up of non-experts to make those
29 decisions. Policies created based on this resolution would likely be an overstep in jurisdiction and met
30 with lawsuits.

31 On page 1, line 5-6 the resolution states that "the welfare of the citizens and economic security of this
32 state depends on the reliability and resilience of electric power supply;" This is true, however, welfare and
33 economic security of this state is compromised by prescribing the uneconomic dispatch and capital
34 expenditure of resources.

35 There has been a lot of misinformation this week surrounding the blackouts Texas and in our own area.
36 We do not recommend North Dakota make long-term policy decisions based on current events that have
37 yet to be fully understood. An autopsy of the blackouts in Texas will be completed in the near future so
38 that we can better address the issues that led to this point. Lies and misinformation around the blackouts
39 happening in Texas are being used to manipulate and push forward an agenda by special interest groups

¹ https://cdn.misoenergy.org//MISO%20FORWARD_2020433101.pdf

² <https://spp.org/markets-operations/operating-reliability/>

Testimony of Dakota Resource Council
Senate Concurrent Resolution 4012
February 18th, 2021

40 to damage the reputation of the renewable energy industries. However, we will share what is currently
41 known about the situation.

42 Take for instance the quote from Texas Governor Greg Abbott on the current situation with the Texas
43 grid, “The Texas power grid has not been compromised. The ability of some companies that generate the
44 power has been frozen. This includes the natural gas & coal generators. They are working to get
45 generation back on line. ERCOT & PUC are prioritizing residential consumers.”³

46 SPP ordered rolling blackouts to residents in ND because it was doing its job to allocate resources
47 regionally to accommodate for losses in other states, in an effort to ensure as much reliability as possible.
48 Coal industry lobbyists will tell you that this is what they have warned about. They say blackouts will
49 come if we get rid of coal, so we must work on reliability so that doesn’t happen. Well, coal plants are
50 still running in ND and we are experiencing blackouts now. This is due to a problem with our grid
51 infrastructure, not renewables. Our grid infrastructure is not built to withstand climate change, even with
52 the use of fossil fuels. Which means in order to address grid reliability, climate change must be addressed.

53 “Let us be absolutely clear: if there are grid failures today, it shows the *existing* (largely fossil-based)
54 system cannot handle these conditions either, these are scary, climate change-affected conditions that
55 pose extreme challenges to the grid. We are likely to continue to see situations like this where our existing
56 system cannot easily handle them. *Any* electricity system needs to make massive adaptive
57 improvements.”- wrote Dr. Emily Grubert who is an assistant professor of Civil and Environmental
58 Engineering and, by courtesy, of Public Policy at the Georgia Institute of Technology.⁴

59 On page 1, lines 14-16 the bill states “electric power markets have been distorted by direct and indirect
60 subsidies which has resulted in the undervaluation of dispatchable thermal electric power plants that are
61 now at risk of early retirement that will further erode electric grid reliability and resilience;” Supporters of
62 this bill will reference a “distorted” market. In our view, the energy market is not distorted because the
63 energy market has always been influenced by government subsidies and through laws. All forms of
64 energy are, and have been for decades, heavily subsidized by the federal government. Even early coal
65 plants in North Dakota were built with federal money. The need to address man-made climate change has
66 caused many parts of the country to experience a change in their consumer preferences, which has
67 naturally led to new laws, policies, and incentives at various levels of government. Addressing climate
68 change is crucial; doing so without unnecessarily raising the cost of electricity is obviously preferable for
69 the residents of North Dakota.

70 This resolution brings up “reliability and resilience penalties” on page 2, line 1. We are unaware of any
71 reliability and resilience penalties. We are positive that the federal government wants a reliable and
72 resilient grid as well. There are reliability aspects to all forms of energy including non-dispatchable
73 energy which offers a degree of flexibility that much of dispatchable energy does not.

74 On page 2, lines 12-3, and page 3, lines 1-5, the resolutions deals with carbon capture sequestration. As
75 we have shared in multiple previous testimonies this session, carbon sequestration is being talked about as
76 if it is already a feasible technology when in reality it hasn’t been shown to be economically feasible

³ https://twitter.com/GregAbbott_TX/status/1361398774216744967

⁴ <https://techcrunch.com/2021/02/15/severe-weather-blackouts-shows-the-grids-biggest-problem-is-infrastructure-not-renewables/>

Testimony of Dakota Resource Council
Senate Concurrent Resolution 4012
February 18th, 2021

77 anywhere in the world.⁵ Carbon sequestration technology has been around for decades. Why is there yet
78 to be a successful example? Anywhere it has been tried has touted its “unique” geology as being the
79 primary reason why it would work there and not in the previous tried areas. In addition, the 45Q tax
80 credits do not “level the playing field” as it will cost up to 10 times more per hour than the wind
81 production tax credit, according to people familiar with Project Tundra.

82 On page 2, lines 8-10 the resolution states “economics and scaling issues currently remain a challenge for
83 energy storage technologies to provide sufficient capacity to replace dispatchable thermal electric
84 generation and provide grid support” Yet, economics and scaling issues also remain a major issue for
85 carbon sequestration, but that is not mentioned in this resolution. Carbon sequestration is expensive,
86 which will increase rates and make electricity less affordable.

87 The resolution also points out on page 3, lines 10-12, that “the combination of direct and indirect
88 subsidies are hidden in the cost to the ratepayer, preventing ratepayers from knowing the true and total
89 cost of the electric power purchased;” That is true for all sources of energy, so it is a moot point. Fossil
90 fuels have externalities on public health and the environment, that are not factored into the total costs to
91 ratepayers either, such as pollution costs, climate change costs, and coal ash clean-up costs. So, ratepayers
92 are prevented from knowing the true and total cost of fossil fuels as well. Fossil fuels have externalities
93 that contribute to climate change and therefore, reduce the reliability of the current grid system.

94 We believe that there is a need to work together on these issues to address long-term, sustainable grid
95 reliability and resiliency. However, in our view, discriminating against non-dispatchable energy sources
96 while relying on unproven, expensive, high-risk technology, and overstepping jurisdiction with RTOs and
97 ISOs is not an appropriate policy agenda to serve North Dakota.

98 Therefore, I urge the committee to oppose SCR 4012 and recommend a **DO NOT PASS** on SCR 4012.

99

⁵ http://www.worc.org/media/Too_Good_to_Be_True_Report.pdf

Supplemental Testimony SCR 4012

Dakota Resource Council

Scott Skokos #256

February 18, 2018

Dakota Resource Council does not object to the language in the amended resolution brought forth by Senator Wardner replacing the original SCR 4012. We feel that the new language removes the punitive measures that we opposed in the original resolution.

In addition, I would like to clarify my comments from the hearing earlier on this matter. My intention was to point out to the committee that there are pundits and lobbyists that are blaming the Texas (ERCOT) and Southwestern Power Pool blackouts on wind and renewables when that is not entirely the case. In our view listening to pundits and lobbyists that provide an inaccurate picture of the situation is irresponsible. Just to be clear, I was not accusing anyone in this body of passing laws (like the ones heard in committee today) in a knee jerk manner, rather I was trying to urge the committee to not feel compelled to act due to partially false arguments being made by pundits and opportunistic lobbyists relating to the current blackout situation. I apologize if what I said came across as if I was accusing you all of acting in a knee jerk manner.

We at DRC appreciate the commitment to ensuring grid reliability, and we do not oppose the amendment offered by Senator Wardner.

Senate Energy & Natural Resources Committee

Thursday, February 18, 2021

Testimony in Support of
Senate Concurrent Resolution No. 4012 with Amendments

Wind Industry of North Dakota (WIND) supports SCR 4012 with the amendments as introduced by Senator Wardner. WIND is a coalition of wind industry members who believe North Dakota should harness its abundance of wind for the continued benefit of its communities and residents. WIND's members include American Clean Power Association (formerly the American Wind Energy Association), Apex Clean Energy, Capital Power, EDF Renewables, Enel North America, Invenergy, NextEra Energy Resources, and Orsted.

As one of many sectors within the state's diverse energy portfolio, WIND shares the goal of a reliable and affordable power grid, along with an all-of-the-above energy strategy. We agree that the state and its people benefit from robust and diverse electric generation. Further, we agree that regional transmission organizations play a critical role in developing rules to appropriately and effectively ensure the reliability and resilience of the electrical grid.

WIND respectfully urges a DO PASS recommendation on SCR 4012, with the amendments offered by Senator Wardner.



Wind Industry of North Dakota

Please feel free to contact any of us for continued discussion.

American Clean Power Association

Jeff Danielson
jdanielson@cleanpower.org

Apex Clean Energy

Chris Kunkle
chris.kunkle@apexcleanenergy.com

Capital Power

Jon Sohn
jsohn@capitalpower.com

EDF Renewables

Adam Sokolski
adam.sokolski@edf-re.com
Represented by GA Group, PC
landrist@gagroup.law
acleary@gagroup.law

Enel North America

Gina Mace
gina.mace@enel.com
Represented by Olson Effertz
kayla@olsoneffertz.com
Represented by The Harms Group
robert@harmsgroup.net

Invenergy

Dan Litchfield
dlitchfield@invenergy.com

NextEra Energy Resources

Julie Voeck
julie.voeck@nexteraenergy.com
Represented by Olson Effertz
john@olsoneffertz.com
Represented by Odney
dlarson@odney.com
sgoettle@odney.com
landerson@odney.com

Orsted

Francesca Martella Kehl
FRKEH@orsted.com



Senate Concurrent Resolution 4012

Testimony by Carlee McLeod

In support, if amendments offered by Senate Majority Leader Wardner are adopted

Senate Energy and Natural Resources Committee, Senator Kreun, Chair

February 18, 2021

Chairman Kreun, members of the committee, USND asks for your support of amendments proposed today by Senate Majority Leader Wardner, and if those amendments are adopted, we urge support of SCR 4012.

In the resolution's original form, we had concerns regarding various inaccuracies, as well as directives duplicating regulatory action. We do, however, support some of the underlying tenets, including the ability for North Dakota to support use of its abundant resources for electric resiliency. Further, we believe it is appropriate to continue to urge regional transmission organizations to develop market signals or pricing mechanisms which properly value those resources. We believe the amended language more accurately and appropriately addresses these issues, and if adopted, we urge passage.

Thank you.





ND
Living

NDARECs
North Dakota Association of Rural Electric Cooperatives
3201 Nygren Drive NW • P.O. Box 727 • Mandan, ND 58554-0727

Phone: 701.663.6501 or 800.234.0518

Fax: 701.663.3745 www.ndarec.com

February 18, 2021

To: Senate Energy and Natural Resources Committee

RE: Support of Senate Concurrent Resolution 4012 as amended

From: Zac Smith, communications and government relations director, NDAREC

Chairman Kreun and members of the Senate Energy and Natural Resources committee, my name is Zac Smith, and I am testifying on behalf of the North Dakota Association of Rural Electric Cooperatives in support of Senate Concurrent Resolution 4012 as amended by Senate Majority Leader Wardner. The North Dakota Association of Rural Electric Cooperatives (NDAREC) represents sixteen electric distribution cooperatives and five generation and transmission cooperatives that generate, transmit, and distribute electricity across the state of North Dakota.

North Dakota, because of our status as an exporter of energy to other states and the continually moving goal posts of “goal setting” policy of other state legislatures has been deemed to be a “taker” of policy. The amendments to SCR 4012 make clear that North Dakota intends to declare its policy on energy generation and the importance of using North Dakota resources to achieve a resilient and reliable grid. North Dakota’s electric cooperatives support such action as we continue to distribute electricity across North Dakota and generate electricity to be used across the region.

Thank you for the opportunity to provide written testimony on SCR 4012. We urge adoption of Senator Wardner’s amendment and, thereafter, a DO PASS recommendation on SCR 4012, as amended.



February 18th, 2021

Re: Testimony in Opposition to SCR 4012

Chairman Kreun, and members of the Committee, my name is Ryan Warner. I am the co-owner of Lightspring, an energy technology company in Bismarck.

SCR 4012 seeks to address issues of “grid reliability”. If implemented, it will attempt to create “price transparency” by manipulating federal electricity markets. This manipulation is aimed at establishing the “inherent value” of coal and other so-called “dispatchable” sources of electricity until carbon capture or other low emission technology comes to market.

Within this resolution there are 4 pages attesting to the supposed benefits of dispatchable sources of electricity and exactly ZERO pages speaking to the costs.

If you were in accountant school and tried to determine the value of something and only considered the benefits and not the cost, you would be flunked out. In essence, this is what SCR 4012 does - it speaks to the benefits and hides all the costs.

In fact, the cost of burning fossil fuels is actually why we are gathered in this room today. This is because burning fossil fuels makes the planet sick.

Sure, there are debates to be had about the extent of the sickness; debates about how to most effectively address the sickness, and many reasonable people disagree as to when the sickness may become a terminable illness. But what is not in question is that our behavior is making us sick.

Now, “value” can take many different forms. Some may value gold, some may value soybeans, and some may value bitcoin, but in general “value” as a concept is simply the measure of community agreement. As such, it cannot be forced or manipulated into existence by resolution or law, but instead emerges organically out of community consent. Right now, there is general agreement within the market and within society at large that the “value” of fossil fuels is in decline.

SCR 4012 seeks to deny these realities. It seeks to create “value” by force and by words, by considering only the benefits of fossil fuels, and by neglecting any of the costs of climate change. While price transparency is a laudable goal, all this resolution wants to do is hide the cost of pollution.

But, “value” can only be truly developed via consensus. As such, I urge this committee to continue this conversation, and to investigate how North Dakotans can come together

and agree on a shared path forward. Further, I encourage this committee to listen to every voice and try to find a middle ground that honors all perspectives. If we do that, we could truly move forward together into the future. As such, I recommend continued study of the issues of “grid reliability”, one that includes a full account of all the benefits and all the costs of maximizing the sizable natural resources of North Dakota.

Thank you for your time.

21.3091.01000

Sixty-seventh
Legislative Assembly
of North Dakota

SENATE CONCURRENT RESOLUTION NO. 4012

Introduced by

Senator Wardner

Representative Pollert

1 A concurrent resolution to establish a state policy to support the reliability and resilience of the
2 electric grid, ensure price transparency to consumers in electric markets, and incentivize carbon
3 capture utilization and storage as an alternative to preserve dispatchable thermal electric
4 generation and its associated benefits.

5 **WHEREAS**, the welfare of the citizens and economic security of this state depends on the
6 reliability and resilience of electric power supply; and

7 **WHEREAS**, maintaining a reliable and resilient grid with a combination of resources that
8 has dependence on thermal electric generation fueled by abundant domestic coal and natural
9 gas is essential to domestic energy and geopolitical security; and

10 **WHEREAS**, the variability of nondispatchable energy that is subsidized presents major
11 challenges to the independent system operators responsible for the bulk power system
12 reliability and resilience as they have less dispatchable thermal electric generation available;
13 and

14 **WHEREAS**, electric power markets have been distorted by direct and indirect subsidies
15 which has resulted in the undervaluation of dispatchable thermal electric power plants that are
16 now at risk of early retirement that will further erode electric grid reliability and resilience; and

17 **WHEREAS**, regional utilities have announced plans to retire coal-fired electric generation
18 facilities located in North Dakota and the region before the facilities' ^{useful life} ~~established depreciable~~
19 ~~lives~~ while simultaneously making significant investments in nondispatchable energy projects;
20 and

21 **WHEREAS**, these announcements create an urgent need for North Dakota to take actions
22 to make clear the value of dispatchable power and address market distortions created by
23 production of nondispatchable power both locally and regionally; and

24 **WHEREAS**, in both the Southwest Power Pool and Midcontinent Independent System
25 Operator, state and federal policies mandating and incenting the deployment of significant

1 nondispatchable energy are imposing reliability and resilience penalties on the bulk power
2 system relied upon by the citizens and industries of North Dakota without due compensation for
3 the true and total cost of those penalties; and

4 **WHEREAS**, planning by the Midcontinent Independent System Operator and the Southwest
5 Power Pool includes major additions of transmission lines, synchronous condensers, static
6 compensators, and other devices to provide grid attributes that are lost as dispatchable
7 resources retire; and

8 **WHEREAS**, economics and scaling issues currently remain a challenge for energy storage
9 technologies to provide sufficient capacity to replace dispatchable thermal electric generation
10 and provide grid support; and

11 **WHEREAS**, North Dakota has long served as an energy producer and exporter for the
12 Midwest and the nation and is situated uniquely to advance and benefit from carbon capture
13 utilization and storage projects due to the state's significant lignite reserves and associated
14 lignite-fired thermal electric generation and coal conversion facilities, geologic formations, the
15 state's significant natural gas capture and electric power development opportunities, as well as
16 the state's significant oil reserves that have high potential for enhanced oil recovery utilizing
17 anthropogenic carbon dioxide captured from lignite- and gas-fired thermal electric generation;
18 and

19 **WHEREAS**, developing carbon capture utilization and storage projects in North Dakota will
20 result in significant state and local revenue and employment benefits by preserving lignite mines
21 and associated thermal electric generation plants while creating new employment and revenue
22 opportunities associated with the construction and operation of carbon capture, power plant,
23 and enhanced oil recovery projects; and

24 **WHEREAS**, additional opportunities will be created by utilization of electricity onsite through
25 both carbon capture utilization and installation of complimentary operations that use high
26 amounts of electricity, creating products onsite not necessary to ship to market, further reducing
27 capacity utilizing the transmission system, and creating space for additional technology neutral
28 electric generation in future years; and

29 **WHEREAS**, by deploying carbon capture utilization and storage and other onsite electricity
30 consumption projects in North Dakota using lignite, natural gas, power plant, and other
31 cutting-edge technology and workers from North Dakota to produce reliable and affordable

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1 electric generation for its citizens and its industry, as well as other products, North Dakota not
2 only will benefit in the short term economically, it will improve reliability and affordability
3 throughout the Midwest and ensure the ability to be a world leader in deploying carbon capture
4 utilization and storage projects globally, ensuring developing nations the ability to provide
5 low-carbon, reliable energy to their citizens; and

6 **WHEREAS**, the system of regulatory oversight does not ensure sufficiently the reliability
7 and resilience of the electric grid because of market distortion and unrealistic electricity
8 production mandates from states, driving regional transmission operators in their dispatch
9 policies; and

10 **WHEREAS**, the combination of direct and indirect subsidies are hidden in the cost to the
11 ratepayer, preventing ratepayers from knowing the true and total cost of the electric power
12 purchased; and

13 **WHEREAS**, the use of direct and indirect subsidies in the market have increased the cost
14 of electricity to the ratepayer; and

15 **WHEREAS**, regional transmission operator policy decisions lead to premature retirement
16 analyses that do not consider adequately the reliability and resilience penalties of renewable
17 nondispatchable energy. Nor do they adequately scrutinize premature retirement decisions by
18 requiring analysis and compensation for decarbonization by installation of carbon capture
19 utilization and storage technologies, which help meet carbon reduction goals; allow additional
20 energy generation to utilize the transmission system; and bring significant economic,
21 employment, and energy security benefits to North Dakota and the United States; and

22 **WHEREAS**, robust and diverse production of all natural resources for electric generation
23 within the state of North Dakota should be maintained while providing stable and affordable
24 electricity benefits to North Dakota and its citizens, along with the electrical grid connected to
25 the surrounding region; and

~~26 **WHEREAS**, power producers and developers of electric generating projects in the state
27 should maintain access to reliable and cost-effective generation resources and ensure access
28 to such resources, including coal, natural gas, hydroelectric, wind, solar, and battery technology
29 and other future technologies; and~~

30 **WHEREAS**, priority should be given to industries working together to achieve overall best
31 practices by integrating aspects of multiple industries to achieve the best overall results; and

1 **WHEREAS**, use of waste heat, carbon recycling, hybrid generation resources, energy
2 storage, and new technologies that contribute to a reliable grid, overall energy efficiency, and
3 reasonable cost are all part of this vision;

4 **NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF NORTH DAKOTA, THE**
5 **HOUSE OF REPRESENTATIVES CONCURRING THEREIN:**

6 That a state policy is established to support the reliability and resilience of the electric grid,
7 establish inherent value of dispatchable energy, ensure price transparency to consumers in
8 electric markets, and incentivize carbon capture utilization and storage as an alternative to
9 preserve dispatchable thermal electric generation and its associated benefits; and

10 **BE IT FURTHER RESOLVED**, that the Public Service Commission shall coordinate with
11 regional transmission organizations to ensure and develop policies reflected above which
12 provide reliable, dispatchable power for the region in an effective and consistent manner,
13 discourage premature retirement of our thermal electric power generation fleet, and encourage
14 installation of carbon capture utilization and storage technologies to help meet decarbonization
15 and reliability goals of the region in an effective and consistent manner; and

16 **BE IT FURTHER RESOLVED**, that the North Dakota Transmission Authority develop an
17 ~~integrated resource plan~~ ^{Comprehensive Report} for North Dakota ~~every two years~~ ^{annually} by collecting publicly available
18 information and other requested information from our state's utilities and utilize this information
19 to coordinate with regional transmission organizations to ensure both local and regional grid
20 reliability as well as to develop a plan to enhance and expand transmission within North Dakota
21 to continue our strong tradition of being an energy exporter to our region and the United States;
22 and

23 **BE IT FURTHER RESOLVED**, that the Secretary of State forward a copy of this resolution
24 to the Public Service Commission; North Dakota Transmission Authority; North Dakota
25 Congressional Delegation; Midwest Independent System Operator; and Southwest Power Pool.

2021 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee Peace Garden Room, State Capitol

SCR 4012 PM
2/18/2021

A concurrent resolution to establish a state policy to support the reliability and resilience of the electric grid.

Hearing called to order, all senators are present: **Bell, Schaible Piepkorn, Roers, Patten, and Kreun.**

Discussion Topics:

- Committee Work

Senator Bell presented amendments [3:00]

Senator Roers [3:06] moved a DO PASS on amendment 21.3091.01001 for SCR 4012
Senator Patten [3:07] seconded the motion

Senators	Vote
Senator Curt Kreun	Y
Senator Jim P. Roers	Y
Senator Dale Patten	Y
Senator Merrill Piepkorn	N
Senator Donald Schaible	Y
Senator Jessica Unruh Bell	Y

The motion passes 5-1-0

Senator Bell [3:09] moved a DO PASS on amendment for SCR 4012
Senator Roers [3:09] seconded the motion

Senators	Vote
Senator Curt Kreun	Y
Senator Jim P. Roers	Y
Senator Dale Patten	Y
Senator Merrill Piepkorn	N
Senator Donald Schaible	Y
Senator Jessica Unruh Bell	Y

The motion passes 5-1-0

Senator Bell [3:09] will carry

Hearing adjourned [3:10]

Dave Owen, Committee Clerk

February 18, 2021

SJ.
2/18
18

PROPOSED AMENDMENTS TO SENATE CONCURRENT RESOLUTION NO. 4012

Page 1, line 18, remove "established depreciable"

Page 1, line 19, replace "lives" with "useful life"

Page 3, remove lines 13 and 14

Page 3, remove lines 26 through 29

Page 4, line 16, after "Authority" insert "annually"

Page 4, line 16, remove "an"

Page 4, line 17, replace "integrated resource plan" with "a comprehensive report"

Page 4, line 17, remove "every two years"

Renumber accordingly

REPORT OF STANDING COMMITTEE

SCR 4012, as amended: Energy and Natural Resources Committee (Sen. Kreun, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (5 YEAS, 1 NAY, 0 ABSENT AND NOT VOTING). SCR 4012, as amended, was placed on the Sixth order on the calendar.

Page 1, line 18, remove "established depreciable"

Page 1, line 19, replace "lives" with "useful life"

Page 3, remove lines 13 and 14

Page 3, remove lines 26 through 29

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Renumber accordingly