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Carbon Dioxide Transport and Sequestration in the Submerged Lands of the United States Gulf of Mexico Region

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- Director of Energy Management/Master of Energy Business Programs



Publications on Topic

Pollett, B. B., Perkins, J. (2023). Carbon Dioxide Transport and Sequestration in the Submerged Lands of the United States Gulf of Mexico Region. Oil, Gas & Energy Law.

Pollett, B. B. (2023). Lessons Learned from the Energy Activities in the Gulf of Mexico Region as a Guide for Accelerating and Financing Energy Activities in the Atlantic Region during the Energy Transition. Oil, Gas & Energy Law.

See <https://emclaw.us/intellectual-contribution>

Funded Contracts, Grants, and Sponsored Research

Johannes, T. W., Pollett, B. B., "Integrating CCUS for the Port of Catoosa and Oklahoma Power Plants: Modeling and Regulatory Aspects," Sponsored by Chevron, University of Tulsa, \$100,000.00. (July 2023 - June 2023).

Pollett, B. B., Ferguson, T. M. (student research (S. Beaty, L. Toppins, and S. Frech with the support of professors A. Grau & A. Madhan), "Hydrogen HALO proposed project - Local Jobs and Economic Development Impact Study – T.C. Energy's Hydrogen Node Project in the Port of Inola, Oklahoma," Sponsored by T.C. Energy, University of Tulsa, \$14,070.00. (March 1, 2023 - March 31, 2023).

Rose Rock Energy Conference at TU

Date: Wednesday, November 15, 2023

Location: Tyrrell Hall Auditorium – The University of Tulsa

Topics covered:

- CCS/CCUS,
- Hydrogen production, transport, and storage (including the Hydrogen HALO Project) and
- Geothermal Energy.

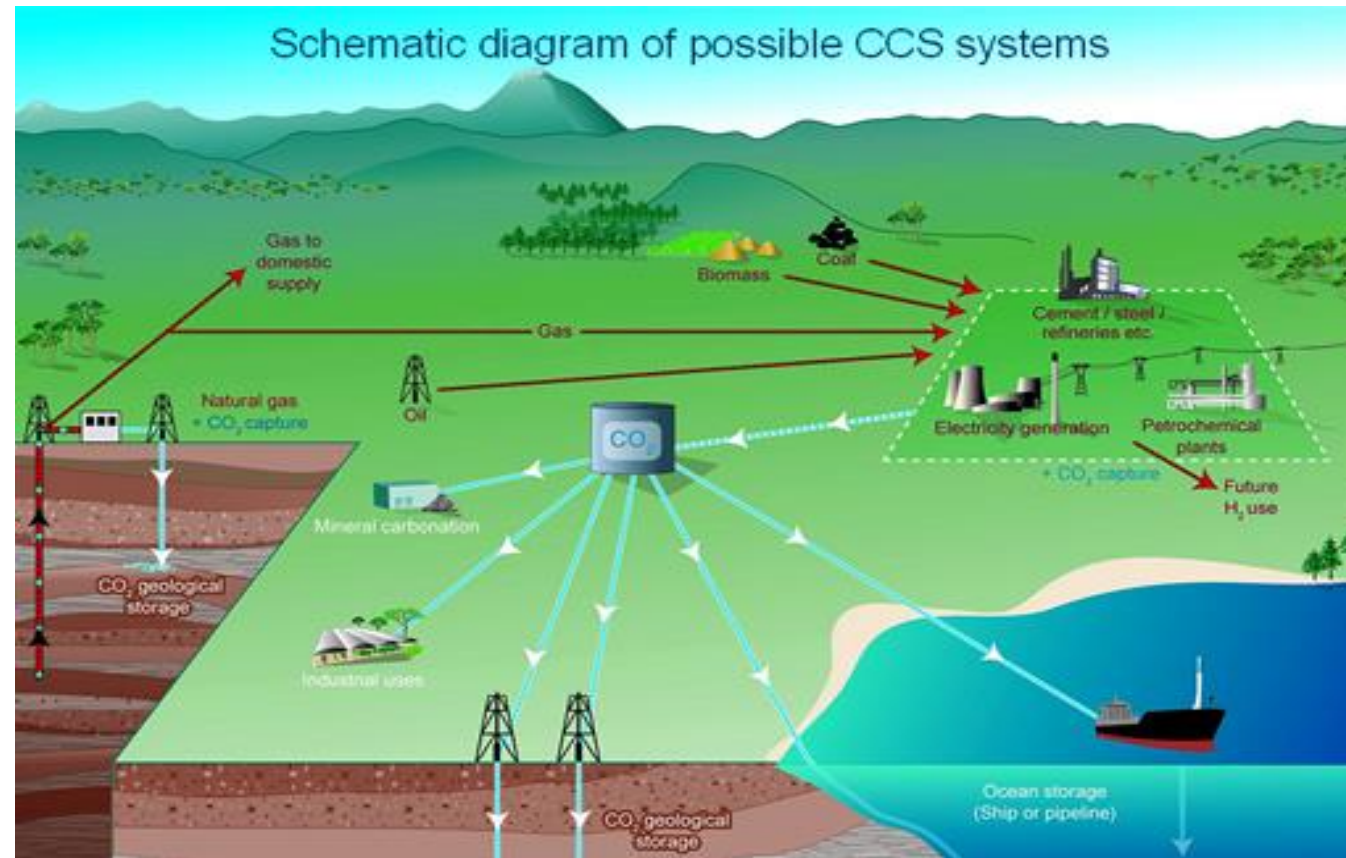
See <https://cese.utulsa.edu/rose-rock-energy-conference/>



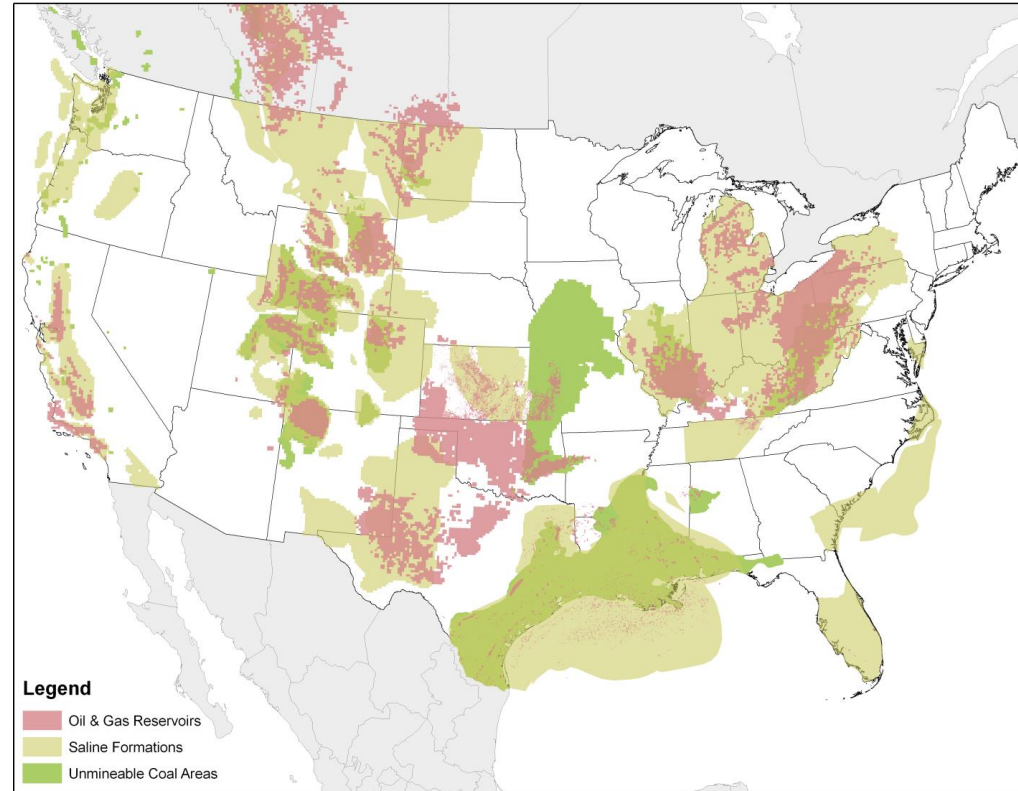
Agenda

- CCS/CCUS
- Energy Mix
- Energy Infrastructure – Lessons Learned from the Gulf of Mexico Region
- Takeaways

CCS/CCUS



Map Oil & Gas Reservoirs, Saline Formations, Unmineable Coal Areas

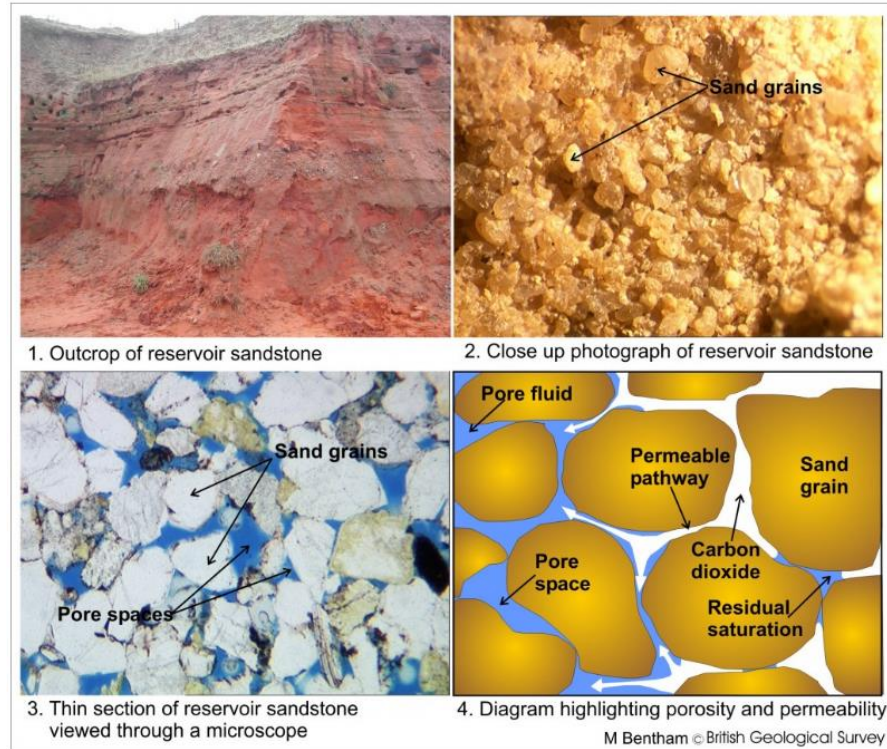


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Going down in scale: from the outcrop to the pore space (by the British Geological Survey)

Source: <https://blogs.egu.eu/divisions/ere/2015/06/15/the-pore-space-scramble/>



Going down in scale: from the outcrop to the pore space (by the British Geological Survey)

45Q Tax Credit Boosts Values Of Carbon Sequestration Projects

Source: <https://time.com/6205570/inflation-reduction-act-carbon-capture/>

Source	Destination	Former Amount	45Q as Amended	
Direct Air Capture	Sequestered	Up to \$50	\$36	\$180*
	Used	Up to \$35	\$26	\$130*
Other Source	Sequestered	Up to \$50	\$17	\$85*
	Used	Up to \$35	\$12	\$60*
* 5 x value if Wage and Apprenticeship Requirements are met				

Qualified Facility Minimum Capture by Type in Metric Tons

Source: 26 U.S.C. §45Q(d)

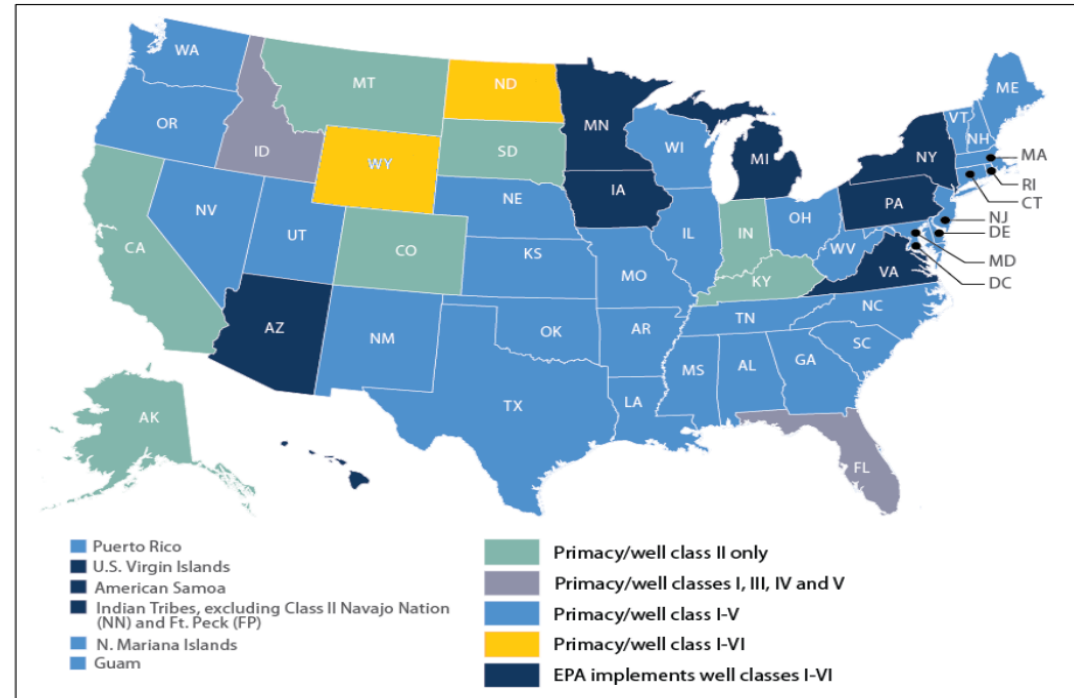
Qualified Facility Minimum Capture by Type in Metric Tons			
Facility Type	Facility Emissions	Former Amount	45Q as Amended
Any	< 500,000	25,000	12,500
Electricity Generating	> 500,000	500,000	18,750*
Direct Air Capture	Any	100,000	1,000
Any Other	>500,000	100,000	12,500
*also requires that design capacity is not less than 75% of the emissions			

Underground Injection Control program - UIC well classes

Source: https://www.epa.gov/uic/general-information-about-injection-wells#well_classes

- **Class I wells** – used to inject hazardous and non-hazardous wastes into deep and isolated rock formations,
- **Class II wells** – used to inject fluids associated with oil and natural gas production,
- **Class III wells** – used to inject fluids to dissolve and extract minerals,
- **Class IV wells** - shallow wells used to inject hazardous or radioactive wastes into or above a geologic formation that contains a USDW, and
- **Class V wells** – used to inject non-hazardous fluids underground, generally to dispose of wastes into or above underground sources of drinking water.
- **Class VI wells** - used to inject carbon dioxide (CO₂) into underground subsurface rock formations for long-term storage, or geologic sequestration.

Primary Enforcement Authority for the Underground Injection Control Program, EPA



Source: CRS, from EPA, "Primary Enforcement Authority for the Underground Injection Control Program," accessed on September 22, 2022, at <https://www.epa.gov/uic/primary-enforcement-authority-underground-injection-control-program-0>, accessed on September 22, 2022.

Notes: North Dakota and Wyoming have primacy for all well classes, including Class VI. EPA implements the Class VI program for all other states, territories, and tribes.

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The Long Road to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ☐ A primacy application requires a number of complementary legislative, regulatory, and state executive actions.
- ☐ A complete primacy application will generally include the following:
 - ☐ The state's legislative and regulatory requirements for Class VI wells.
 - ☐ Documentation demonstrating the public participation process in the development of the state legislative and regulatory requirements.

The Long Road to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ☐ Issue a letter from the state's governor officially requesting primacy.
- ☐ Issue a state attorney general's statement of enforcement authority.
- ☐ Enter a Memorandum of Understanding with EPA related to the state's Class VI permitting program's administration, implementation, and enforcement.

Comparing Paths to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

1 With few exceptions, EPA has approved most states to directly issue all other classes of permits under the SDWA's UIC program.

2 Typically, under the federal Administrative Procedure Act, final rules become effective 30 days after publication in the Federal Register. However, this requirement can be waived, which EPA did in its prior approvals of North Dakota and Wyoming's primacy applications.

Comparing Paths to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

3 The official date of the proposal will be the date of publication of notice of EPA's proposed action in the Federal Register.

4 EPA's proposed approval of those states' primacy applications stated that a public hearing would only be held if requested during their respective comment periods, and none were.

Comparing Paths to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ The timelines provided above can also be misleading because there can be years of legislative and regulatory action at the state level prior to submitting an application for primacy.
- ❑ Even the date EPA deems program revisions to be officially submitted can significantly lag behind the date of the state's actual submittal for federal review.

Comparing Paths to Primacy

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ For example, Louisiana originally prepared its primacy application in April 2021, and updated it in May 2021, but EPA did not deem the application as being officially submitted until September 2021.
- ❑ Despite the Biden administration's statements of support for CCS, Louisiana's application did not appear to benefit from any form of expedited or streamlined review.

Environmental Justice Concerns

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ If there are any lessons to be learned from EPA's proposed approval of Louisiana primacy, it is that [environmental justice] (EJ) cannot be ignored.

Environmental Justice Concerns

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ EJ has been a central focus of the Biden administration's approach to environmental regulation and enforcement, and EPA's proposed approval of Louisiana's Class VI primacy application follows a string of other executive actions focused on ensuring that EJ communities are not ignored when it comes to permitting CCS projects

Environmental Justice Concerns

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ Louisiana generally agreed to incorporate all of the EJ measures highlighted by EPA in its December 9, 2022 letter into the state's Class VI permitting program. These measures include:
 - ❑ An inclusive public participation process;
 - ❑ Incorporating EJ and civil rights considerations into permitting decisions;
 - ❑ Enforcement of Class VI program regulatory protections (e., site selection, well construction, monitoring, site closure); and
 - ❑ Incorporation of measures to mitigate impacts to EJ communities.

Environmental Justice Concerns

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- ❑ LDNR will require applicants to evaluate project sites using EPA's EJScreen and to utilize qualified third-party reviewers to conduct additional evaluation of a Class VI application when communities with EJ concerns and/or other increased risk factors are identified.

Environmental Justice Concerns

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- The results of the review will be used by LDNR to determine if an enhanced public comment period will be required.
- In addition, LDNR will require applicants to assess alternatives to the site location and propose mitigating measures to ensure adverse environmental effects are minimized.

What Comes Next in the Primacy Saga

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- According to EPA, Texas, West Virginia, and Arizona are in the “pre-application phase” for Class VI primacy. It remains unclear whether or not these states and EPA have gleaned enough lessons from the limited number of other Class VI primacy approvals to streamline applications.

What Comes Next in the Primacy Saga

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- One thing is certain, Louisiana is well-positioned to become a CCS hub for a wide array of industries concentrated along the Gulf Coast.

What Comes Next in the Primacy Saga

Source: <https://www.velaw.com/insights/epa-proposes-to-finally-approve-louisiana-to-issue-ccs-permits/>

- Whether or not a CCS “gold rush” in the state will materialize as a result of Louisiana’s pending primacy approval is yet to be seen, but other states that do not want to be left behind will need to consider what additional changes to their existing or proposed CCS regulations might be required to ensure EPA does not delay approval because of EJ-related concerns.

EPA REGION 6 HEARING

Source: <https://www.dnr.louisiana.gov/index.cfm/calendar/detail/1234>

- EPA proposes to issue a final rule approving Louisiana's application to implement the UIC program for Class VI injection wells located within the State, except those on Indian lands.
- EPA proposes amendments to 40 CFR Part 147 to reflect this proposed approval of Louisiana's Class VI primacy application.



EPA REGION 6 HEARING

Source: <https://www.dnr.louisiana.gov/index.cfm/calendar/detail/1234>

- The U.S. Environmental Protection Agency (EPA or Agency) has received a complete Underground Injection Control (UIC) program revision package from the State of Louisiana (State), requesting approval of a revision to the State's Safe Drinking Water Act (SDWA) section 1422 UIC program to include Class VI injection well primary enforcement responsibility (primacy).
- The proposed revision would allow the Louisiana Department of Natural Resources (LDNR) to issue UIC permits for geologic carbon sequestration facilities as Class VI wells and ensure compliance of Class VI wells under the UIC program.

EPA REGION 6 HEARING

Source: <https://www.epa.gov/uic/underground-injection-control-epa-region-6-ar-la-nm-ok-and-tx>

- EPA held a public hearing was held for three days:
- Wednesday, June 21, 2023, from 1 pm - 5 pm and 6 pm - 8 pm,
- Thursday, June 22, 2023, from 9 am - 12 pm, 1 pm - 5 pm, and 6 pm - 8 pm, and
- Friday, June 23, 2023, from 9 am - 12 pm, 1 pm - 5 pm, and 6 pm - 8 pm
- Location - Louisiana Department of Natural Resources, LaBelle Hearing Room, 1st Floor, LaSalle Building, 617 North 3rd Street, Baton Rouge, LA 70802



EPA REGION 6 HEARING

Source: <https://www.epa.gov/uic/underground-injection-control-epa-region-6-ar-la-nm-ok-and-tx>

- June 21st Agenda/Itinerary
- June 22nd Agenda/Itinerary
- June 23rd Agenda/Itinerary
- Wednesday, June 21 Live Stream (YouTube)
- Thursday, June 22 Live Stream (YouTube)
- Friday, June 23 Live Stream (YouTube)
- Public Hearing Fact Sheet



EPA REGION 6 HEARING

Source: <https://www.epa.gov/uic/underground-injection-control-epa-region-6-ar-la-nm-ok-and-tx>

- State of Louisiana Underground Injection Control Program; Class VI Program Revision Application; Notice of Availability of New Information
- On August 10, 2023, the EPA's Assistant Administrator for the Office of Water signed a Notice of Availability of New Information regarding the State of Louisiana's request to have primacy for UIC Class VI wells within the state.
- The Notice, published on August 16, 2023, supplements the proposed "State of Louisiana UIC Program; Class VI Program Revision Application" rule of May 4, 2023, to approve a revision of the state's SDWA section 1422 UIC program to include Class VI primacy.
- Comments must be received on or before September 15, 2023.



EPA - Environmental Justice

Source: <https://fedsoc.org/events/litigation-update-louisiana-v-epa>

- Efforts to achieve “environmental justice” have been a top priority of the Biden Administration and its Environmental Protection Agency (EPA).
- As stated in the EPA’s FY 2022-2026 Strategic Plan, “EPA will center its mission on the integration of justice, equity, and civil rights across the nation’s environmental protection enterprise.”

EPA - Environmental Justice

Source: <https://fedsoc.org/events/litigation-update-louisiana-v-epa>

- Accordingly, the EPA has invoked Title VI of the Civil Rights Act in some of its environmental emissions investigations even where the situation appears compliant with applicable environmental laws.
- One such investigation recently occurred in Louisiana where the EPA found “significant evidence” of disparate adverse impacts on Black residents of St. John the Baptist Parish, St. James Parish, and an Industrial Corridor in the area.

EPA - Environmental Justice

Source: <https://fedsoc.org/events/litigation-update-louisiana-v-epa>

- These disparate impacts were alleged to be the result of poor air quality despite the fact that the EPA had deemed the relevant emissions compliant with applicable laws shortly before opening their civil rights investigation.

EPA - Environmental Justice

Source: <https://fedsoc.org/events/litigation-update-louisiana-v-epa>

- In May 2023, the Louisiana Attorney General filed suit against the EPA, arguing that EPA lacked authority to impose disparate-impact based mandates under Title VI and that the agency had unconstitutionally delegated power to special interest groups to direct how EPA conducted investigations.

EPA - Environmental Justice

Source: <https://fedsoc.org/events/litigation-update-louisiana-v-epa>

- Shortly after the State sought a preliminary injunction, the EPA abruptly abandoned its pending investigations, although it continues to adhere to its Title VI disparate-impact regulations generally.
- Briefing is ongoing and a hearing has been set for January 9, 2024.
- See the EPA's complaint <https://www.courthousenews.com/wp-content/uploads/2023/06/Louisiana-v-EPA-complaint-usdc-western-louisiana.pdf>

EPA - Environmental Justice

Source: <https://www.pbs.org/newshour/nation/epa-drops-environme>

- Jun 28, 2023 11:29 AM EDT
- EPA drops environmental justice investigations in Louisiana
- The Biden administration has dropped an investigation into whether Louisiana officials put Black residents living in an industrial stretch of the state at increased cancer risk, despite finding initial evidence of racial discrimination, according to a federal court filing Tuesday.

EPA - Environmental Justice

Source: <https://www.pbs.org/newshour/nation/epa-drops-environme>

- The Environmental Protection Agency said a resolution “is not feasible” by a July deadline.
- It ends an inquiry that some activists in majority-Black communities had praised as finally offering a chance to improve their health.

EPA - Environmental Justice

Source: <https://www.pbs.org/newshour/nation/epa-drops-environme>

- The agency said it has taken several “significant actions” involving Denka, a polymer plant at the heart of the investigations, including an agreement to cut emissions.
- It also filed a lawsuit against the company alleging it imposed an unacceptable cancer risk to nearby residents, and tightened regulations

ESG Strategies for CCS & CCUS

- Stakeholder engagement,
- Ethics,
- Environmental protection,
- Resource efficiency,
- Employability,
- Governance, and
- Equity

ESG Strategies

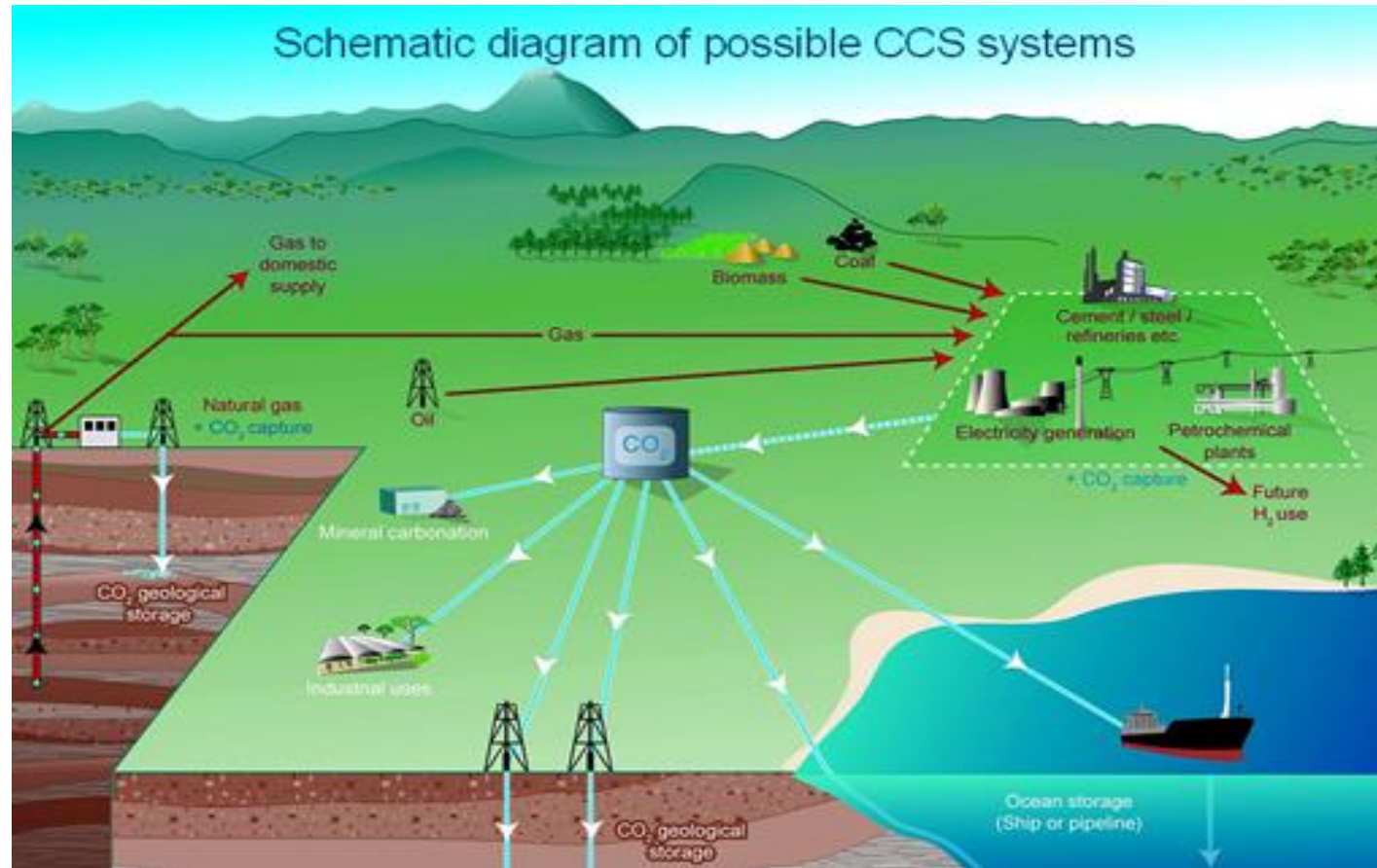
See <https://cese.utulsa.edu/tu-energy-law-commerce/> for details and registration

- TU ENERGY LAW & COMMERCE | Fall 2023 Webinars:
- **ESG Strategies for CCS & CCUS**
- September 5 - ESG Strategies for CCS/CCUS Operations on FEDERAL LANDS
- October 4 - ESG Strategies for CCS/CCUS Operations Under STATE JURISDICTION
- November 1 - ESG Strategies CCS/CCUS Operations on TRIBAL LANDS



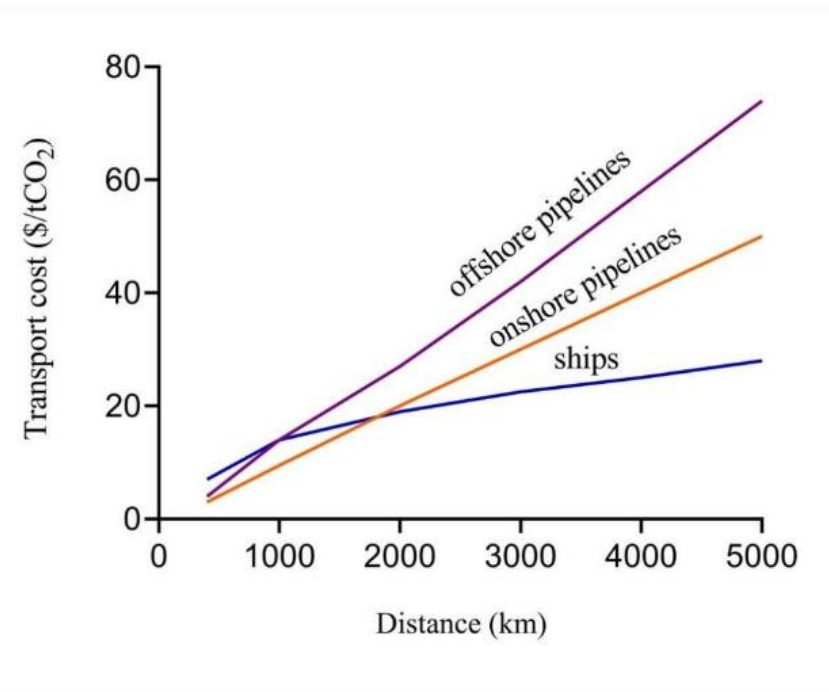
CCS Background

Source: : <https://scied.ucar.edu/longcontent/carbon-capture-and-storage>



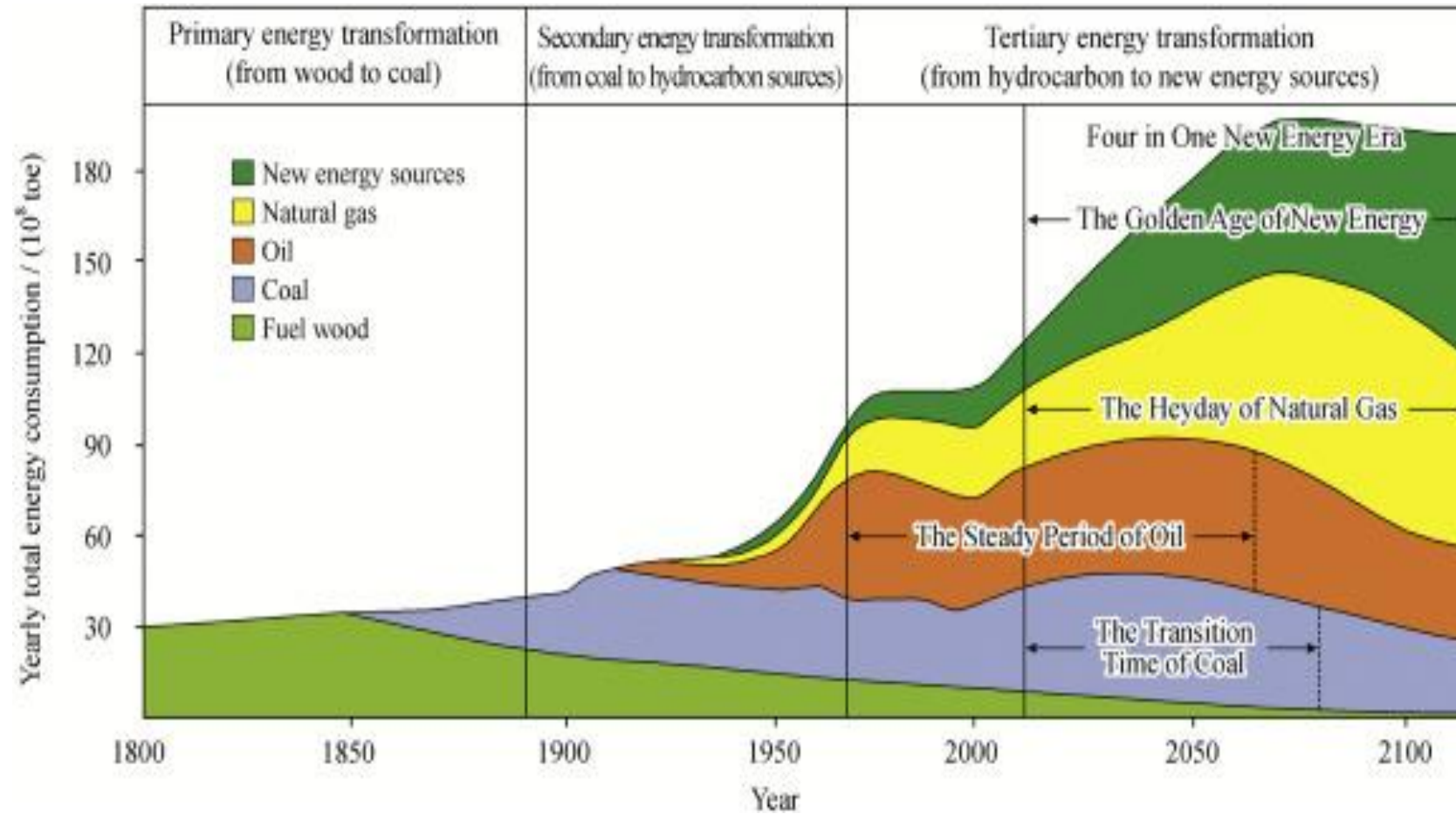
CO2 Transportation Costs

Source: <https://www.forbes.com/sites/uhenergy/2019/02/28/dual-use-lng-shipping-a-gamechanger-for-carbon-management/?sh=40d790161f47>

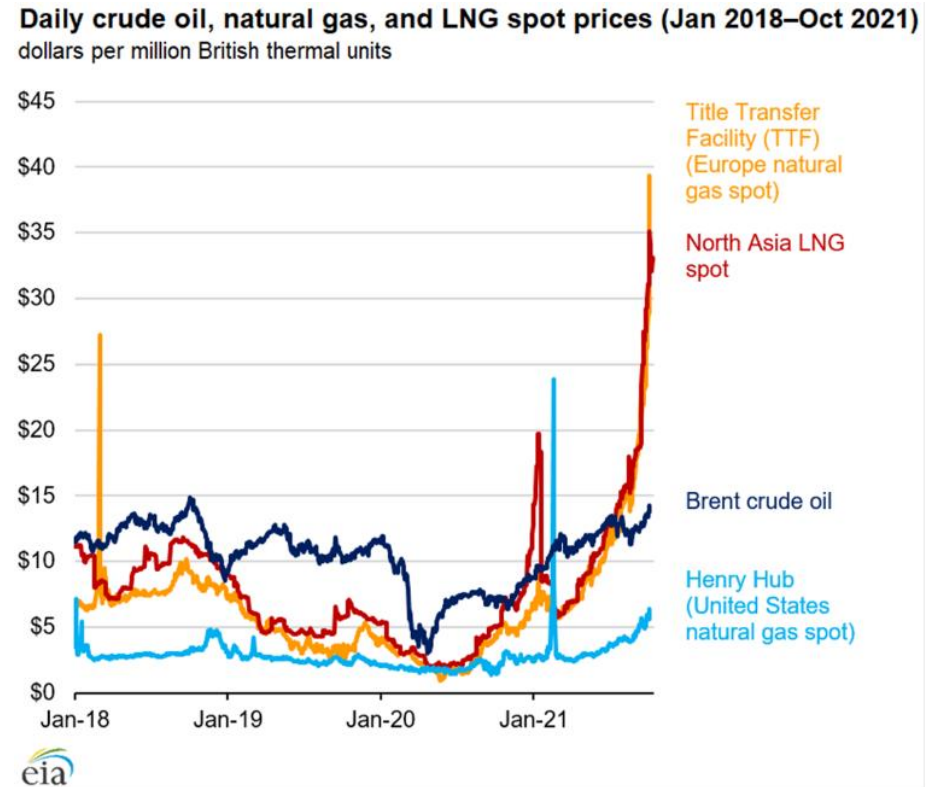


Comparative costs for offshore pipelines, onshore pipelines and ship transport of CO₂ as a function... [+] PROVIDED BY AUTHORS

Energy Mix



LNG Markets



Barges in Inland Waterways

Source: <https://www.greenbaypressgazette.com/story/news/local/door-co/2022/01/12/fincantieri-bay-shipbuilding-begins-work-nations-largest-lng-barge/9177587002/>



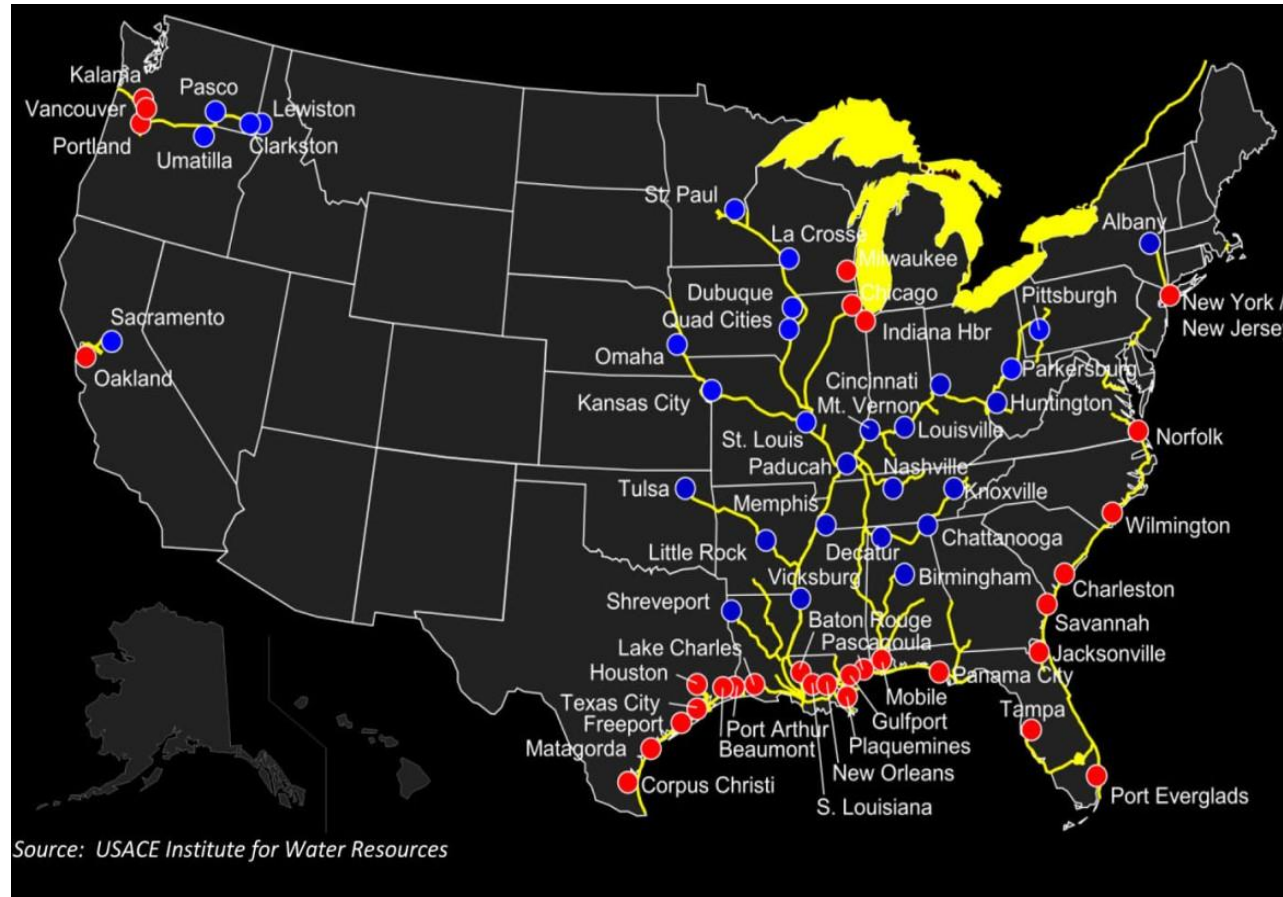
A rendering of the 416-foot-long liquefied natural gas (LNG) bunker barge Fincantieri Bay Shipbuilding of Sturgeon Bay is constructing for Crowley, the largest independent operator of tank vessels in the U.S. The vessel will be able to carry 12,000 cubic meters (3.17 million gallons) of LNG, making it the largest LNG bunker barge in the country. *Courtesy Fincantieri Marine Group*



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Inland Waterways and Ports



Port of Catoosa

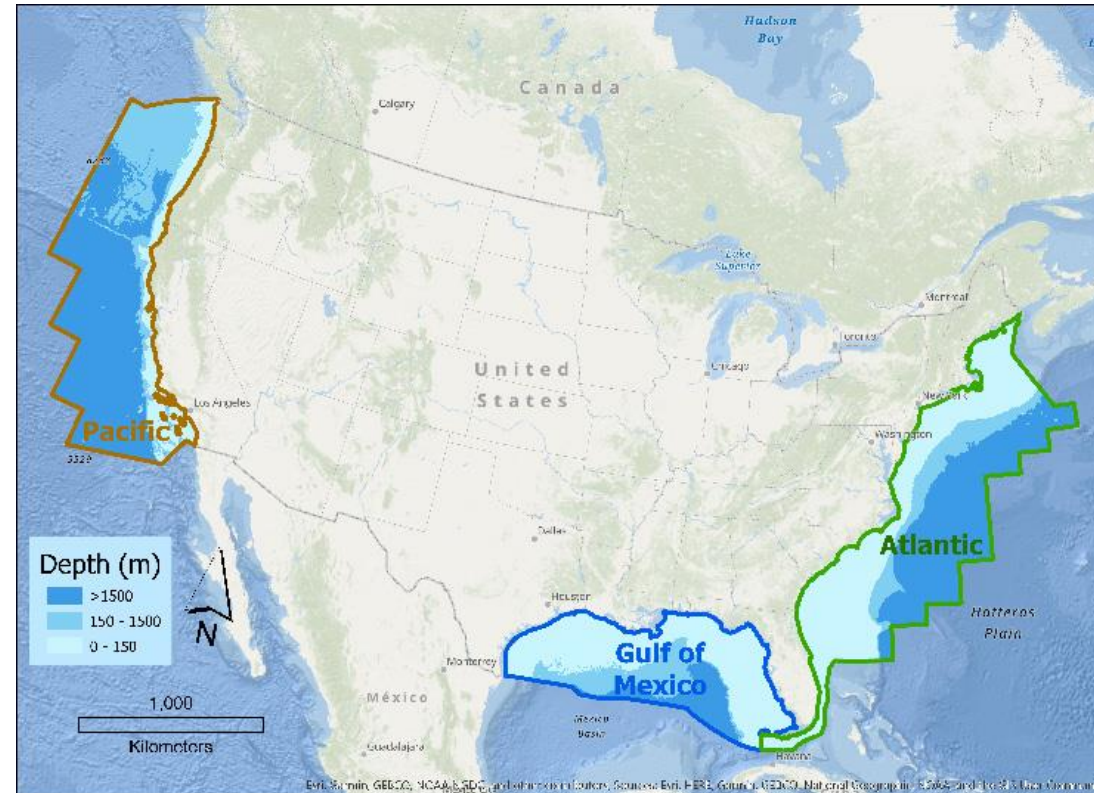
Source: <https://www.news9.com/story/60bab4c00115710bf8b092f8/the-tulsa-port-of-catoosa--celebrates-50-years>



US LNG Facilities



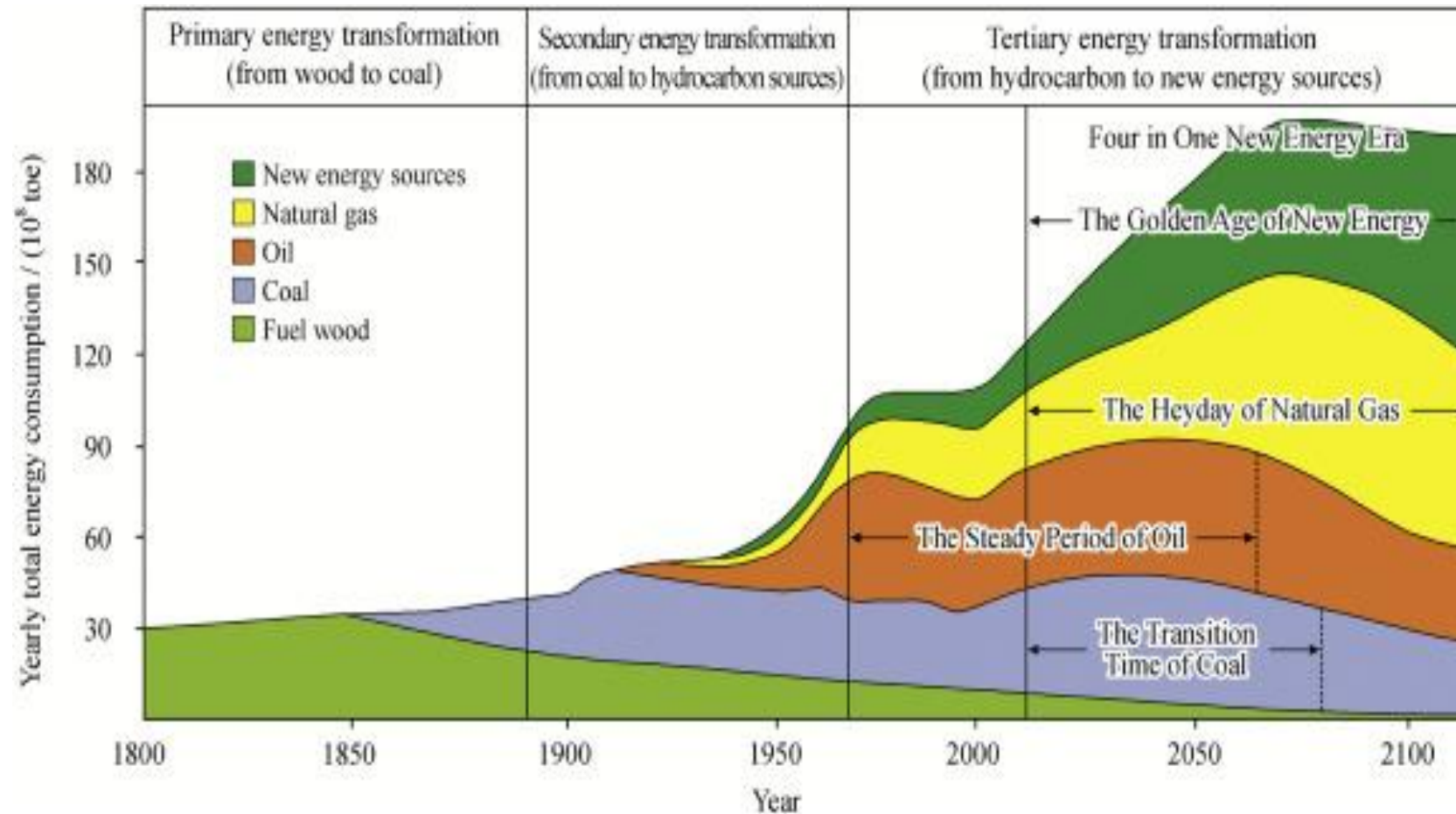
“Birds-Eye View”



Floating LNG Facility – Shell Prelude - Australia

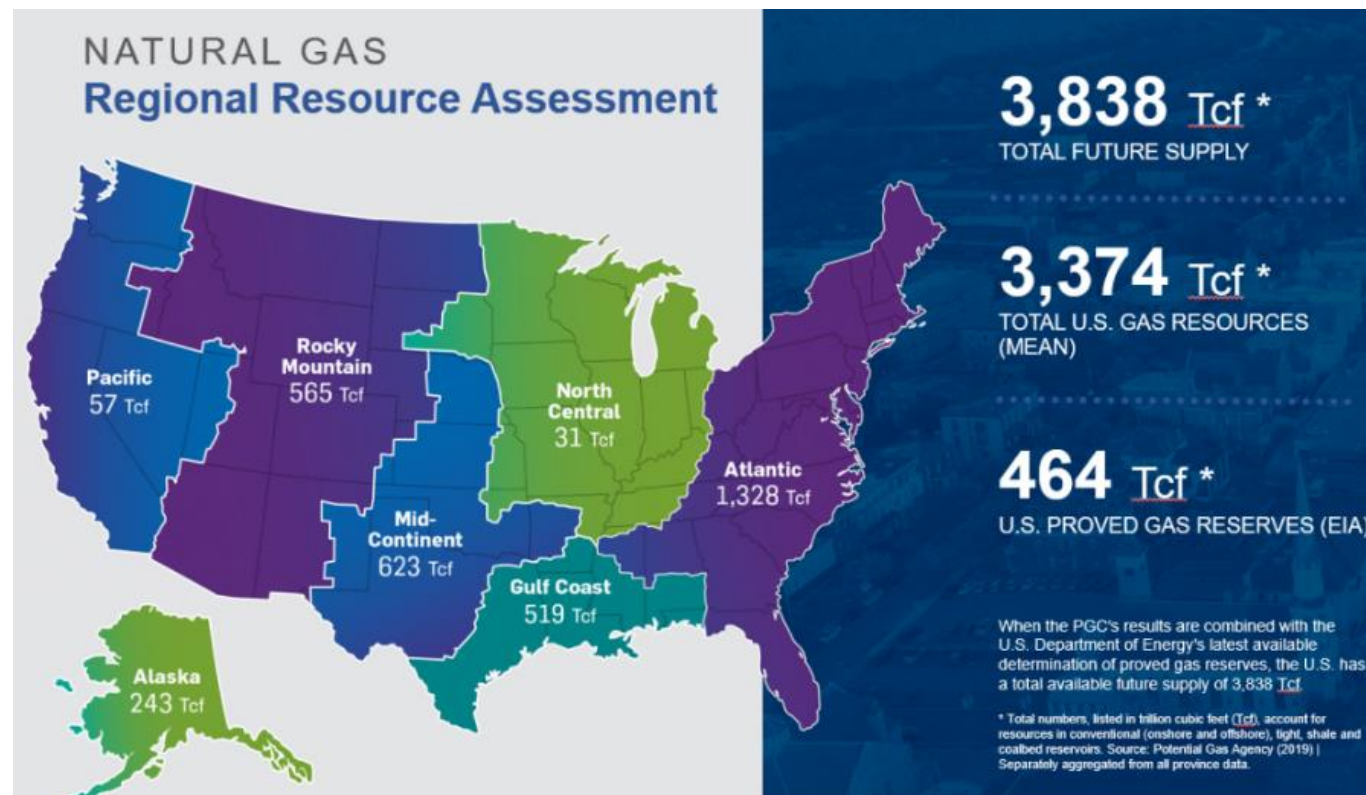


Energy Outlook



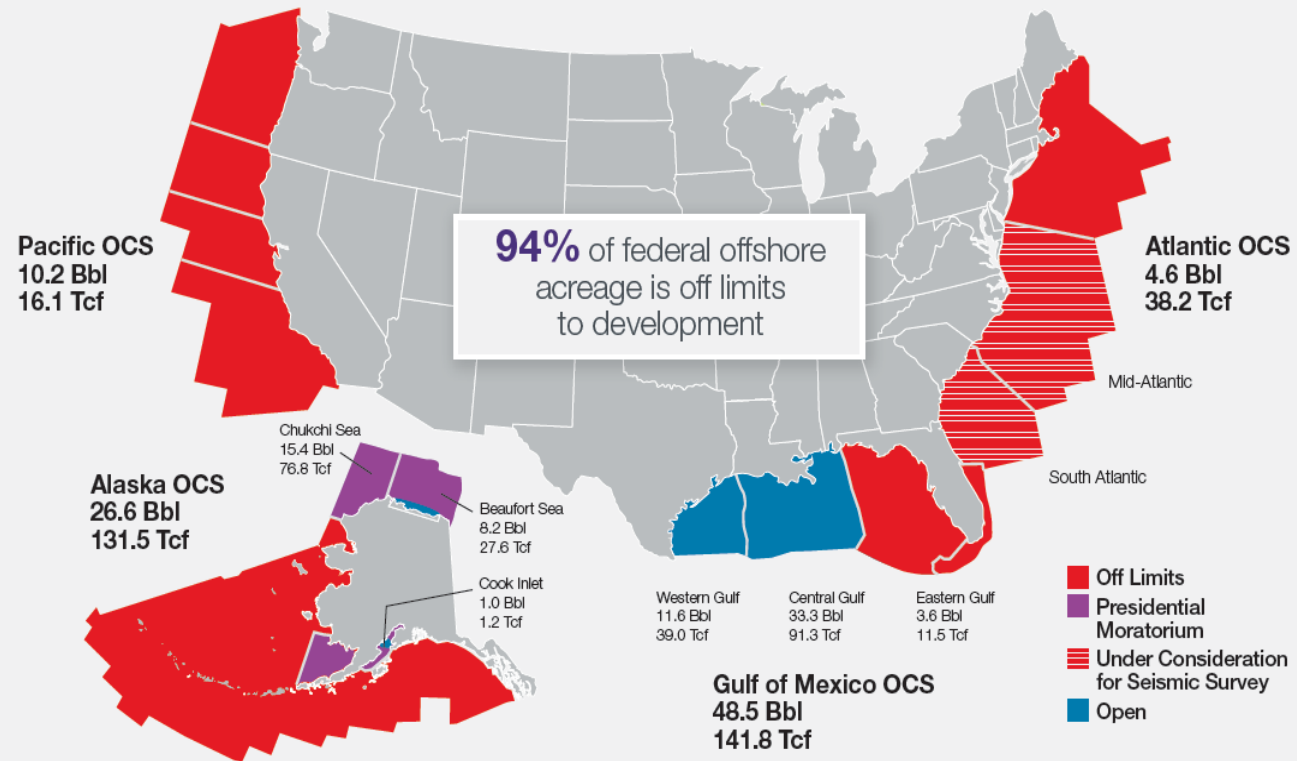
Natural Gas Energy Resources

Source: <https://www.energyindepth.org/new-report-finds-record-breaking-u-s-natural-gas-reserves/>



Petroleum Energy Resources

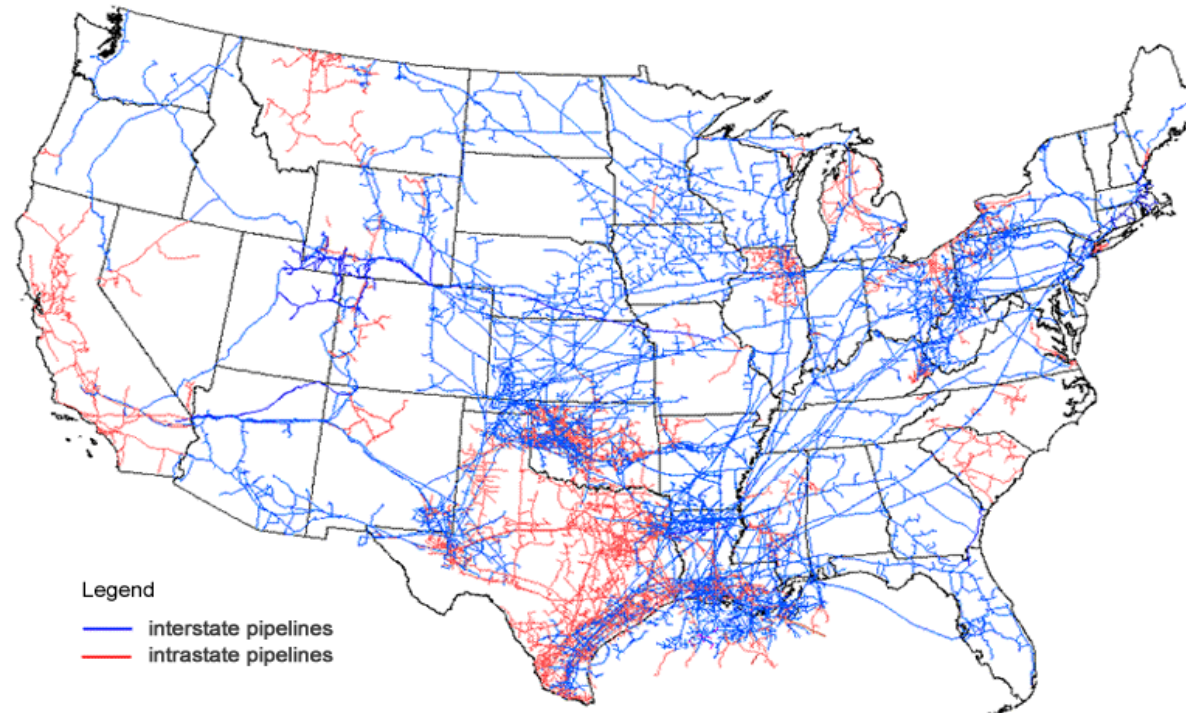
U.S. Offshore Undiscovered Technically Recoverable Federal Oil and Natural Gas Resources
(billion barrels — Bbl and trillion cubic feet — Tcf)



Source: The Bureau of Ocean Energy Management (BOEM).

Energy Infrastructure

Map of U.S. interstate and intrastate natural gas pipelines



Legend

- interstate pipelines
- intrastate pipelines

Source: U.S. Energy Information Administration, *About U.S. Natural Gas Pipelines*



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Surface Water Resources



Texas Infrastructure



Gulf Island in \$55m yard sale

US fabricator offloads one of two facilities it has been marketing, with midstream player stepping in

23 April 2018 13:08 GMT *UPDATED 23 April 2018 13:08 GMT*

By **Eoin O'Kinneide**

Louisiana Ports

Source: <https://www.nlep.org/Competitive-Advantages/Transportation-Logistics/Ports.aspx>

- ❑ While the World War II era saw little occur in the way of road and bridge building, Louisiana entered an era of booming industry following the war, with new businesses attracted by the state's rich natural resources...(emphasis added)
- ❑ In Louisiana, the LDH biennial reports from the 1950s and 1960s tell a clear story of rapid growth and exponential expansion after the pause of the war years.

Louisiana State Highway Spending

Source:

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/HBI/Documents1/Historic_Context_For_Louisiana_Bridges.pdf

Table 2. Postwar spending trends for the state highway system¹³¹

Fiscal year (ending June 30)	New construction contracts issued (in millions)	Miles of highway maintained
1953	\$25	15,170
1955	\$46	15,181
1960	\$112	15,225
1965	\$109	15,475
1970	\$114	16,900

Louisiana State Highway Spending

Source:

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/HBI/Documents1/Historic_Context_For_Louisiana_Bridges.pdf

- Further complicating bridge construction was the need to maintain navigation on many waterways.
- It was one thing to build a low and narrow bridge over a river or bayou, but if the waterway being crossed carried water-based traffic, the bridge had to be designed in such a way to allow the boats and barges to pass unhindered. (emphasis added)

Louisiana Ports

- Similarly, local communities in Louisiana have created an economic footprint that has a symbiotic relationship with the energy sector in the Gulf of Mexico region.
- The Port of Iberia is in the coastal region of Louisiana and strategically sits in between the ports of Houston and New Orleans.

Louisiana Ports

Source: : http://townmapsusa.com/d/map-of-port-of-iberia-louisiana-la/port_of_iberia_la



Louisiana Ports

Source: <https://www.portofiberia.com/>

- ❑ The Port of Iberia:
- ❑ Contains a 2,000-acre industrial and manufacturing site is home to over 100 companies involved in oil and gas fabrication and production, materials handling, marine services and more,
- ❑ Provides direct access to Gulf Intracoastal Waterway and access to the Gulf of Mexico through its 13-foot-deep main navigational channel, and (emphasis added)

Louisiana Ports

- ❑ The Atlantic offshore wind sector would benefit from a symbiotic creation of multi-purpose fabrication yards, the building of Jones Act compliant vessels, and other logistical and transportation infrastructure as we experienced in the Gulf of Mexico region.

Gulf Region's Special Skill Set

Source: : Alex Brown, More States Back Offshore Wind, Citing Economic Potential, Pew July 29, 2022,
<https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2022/07/29/more-states-back-offshore-wind-citing-economic-potential>

❑ As one state Louisiana representative has noted, “If you can build an oil rig, you can build a wind turbine...We have the infrastructure and the manpower.” (emphasis added)

Gulf Region's Special Skill Set

Source: https://www.theadvocate.com/site/forms/cajun_navy/
<https://www.cajunnavyrelief.com/>

Tell us about your hero



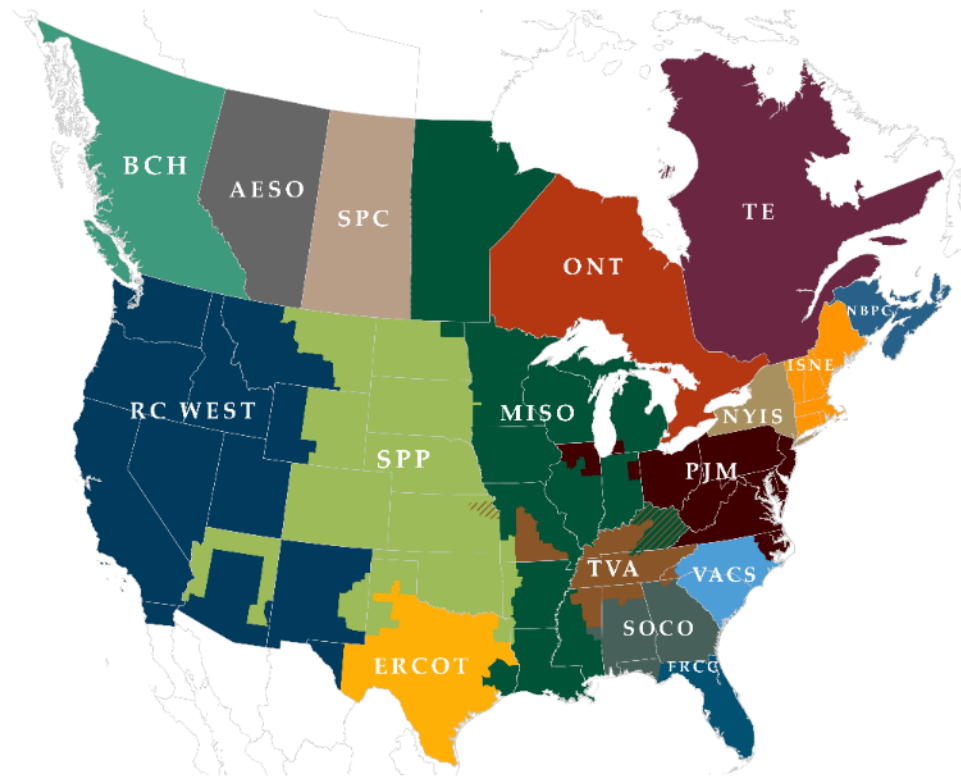
Electric Grid

Source: <https://www.wecc.org/epubs/StateOfTheInterconnection/Pages/The-Bulk-Power-System.aspx>

- ❑ Reliability Coordinators (RC) monitor the grid in real-time and interact with individual operators and other RCs to maintain reliable operations.
- ❑ Independent System Operators (ISO) and Regional Transmission Operators (RTO) coordinate, control, and monitor parts of the electric grid. ISOs and RTOs may also operate wholesale electricity markets.

Electric Grid

Source: <https://www.wecc.org/epubs/StateOfTheInterconnection/Pages/The-Bulk-Power-System.aspx>

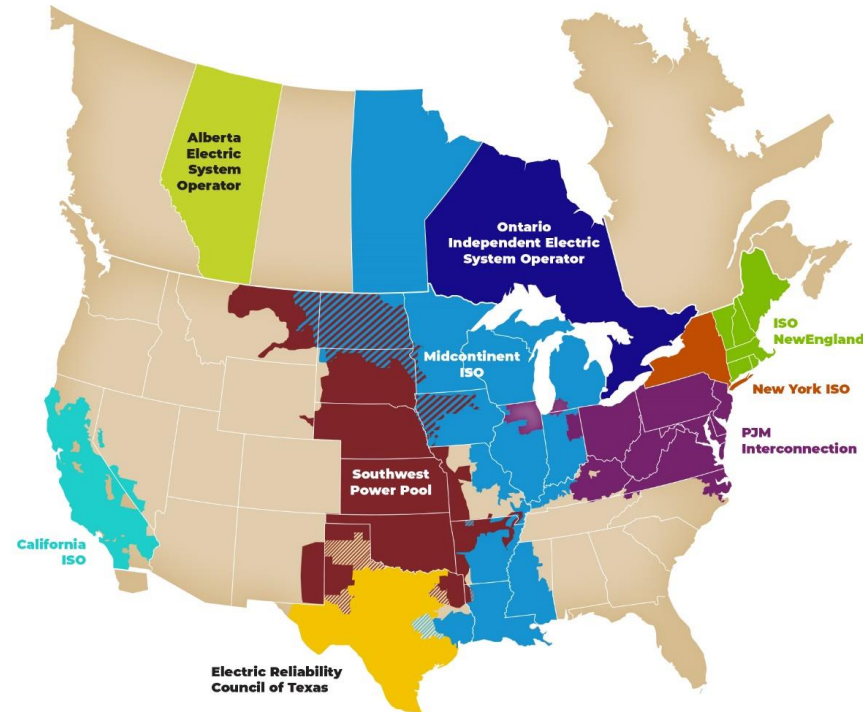


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Electric Grid

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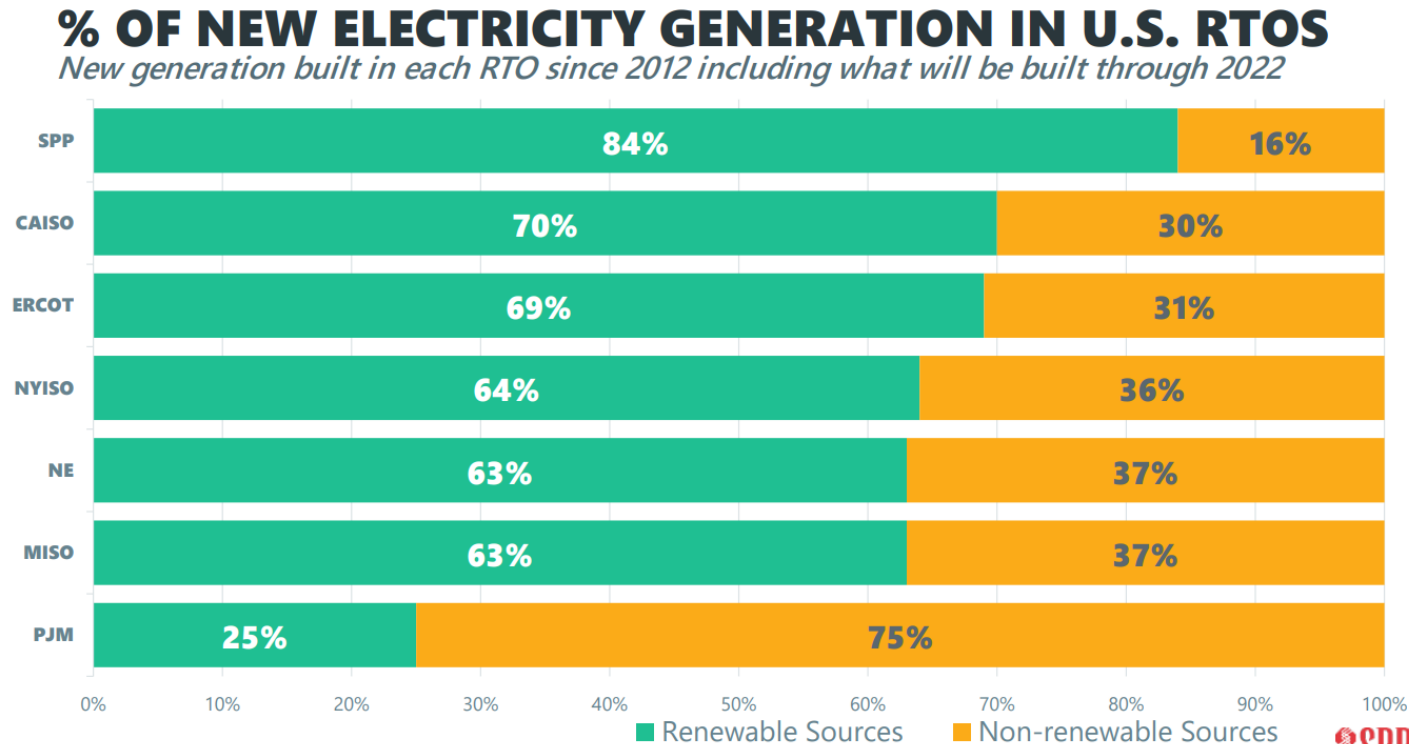


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Energy Outlook – Minding the Gap

Source: Presentation by Richard Dillon, SPP - Changing Electric Environments – Energy Bar Association -Midwest Chapter Meeting – Sept. 16, 2022



Source: NRDC analysis of S&P Global Market Intelligence data

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Source: <https://cdn.misoenergy.org/RIIA%20Summary%20Report520051.pdf>

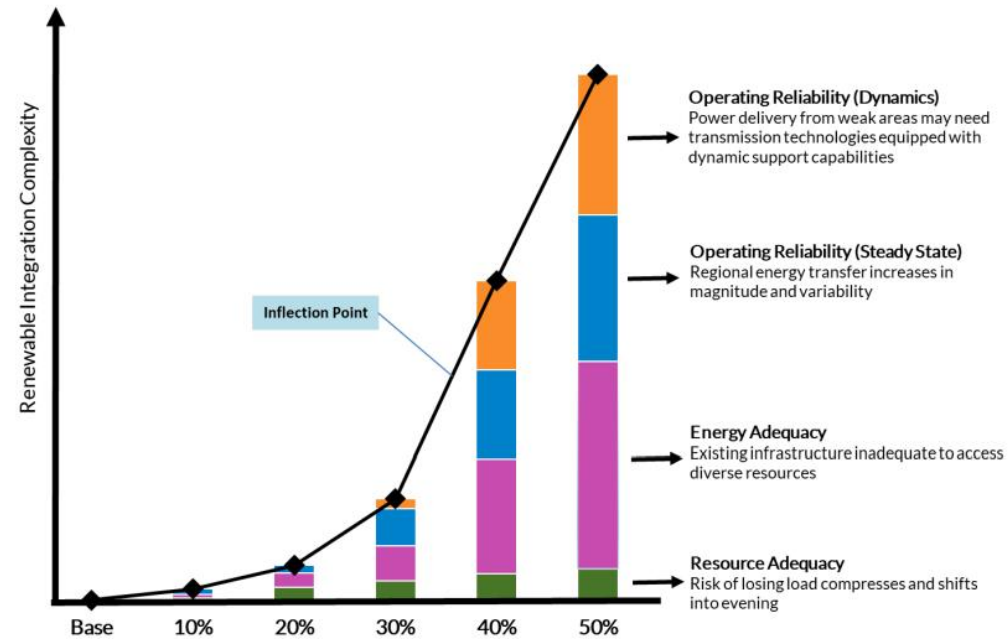


Figure 1: Increasing renewable penetration will significantly impact grid performance with complexity increasing sharply after 30% renewable penetration levels

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Source: <https://cdn.misoenergy.org/RIIA%20Summary%20Report520051.pdf>

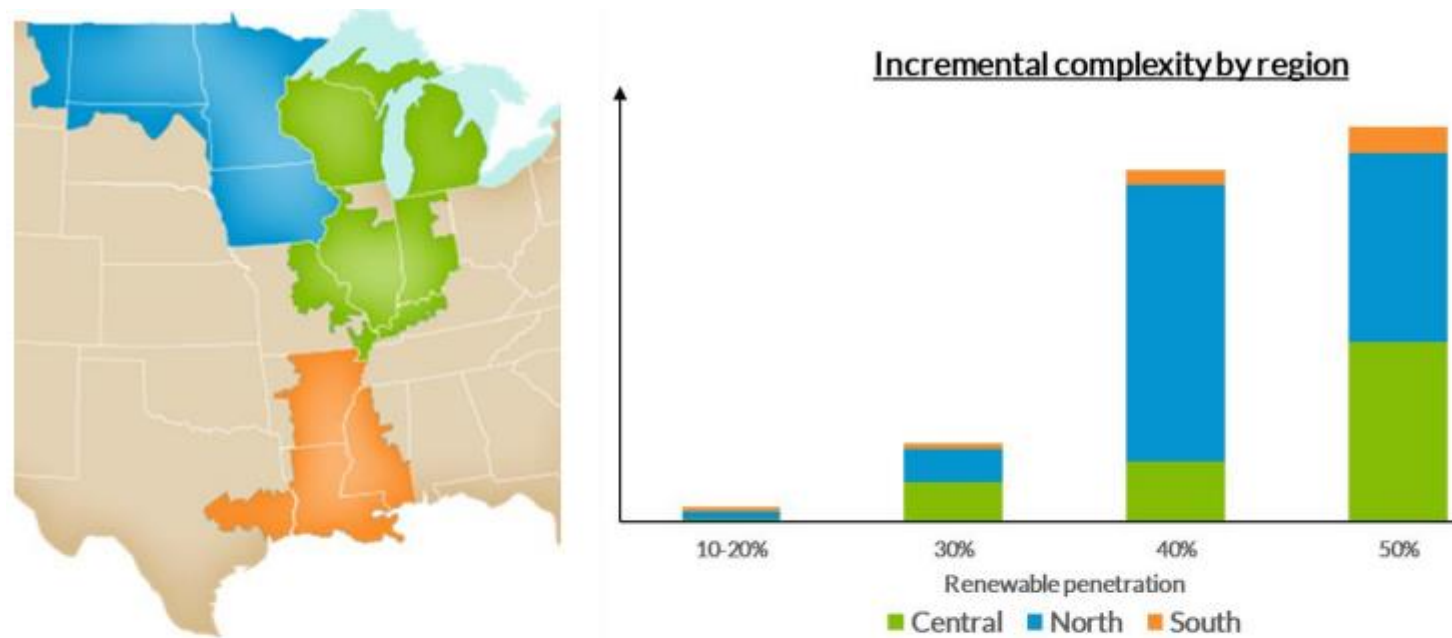
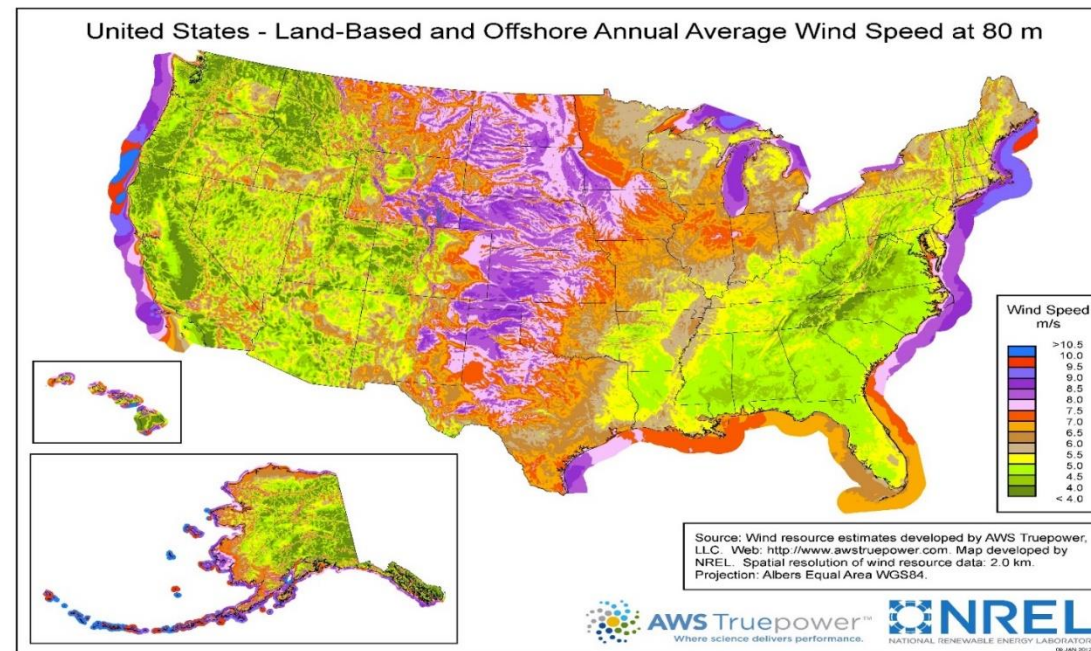
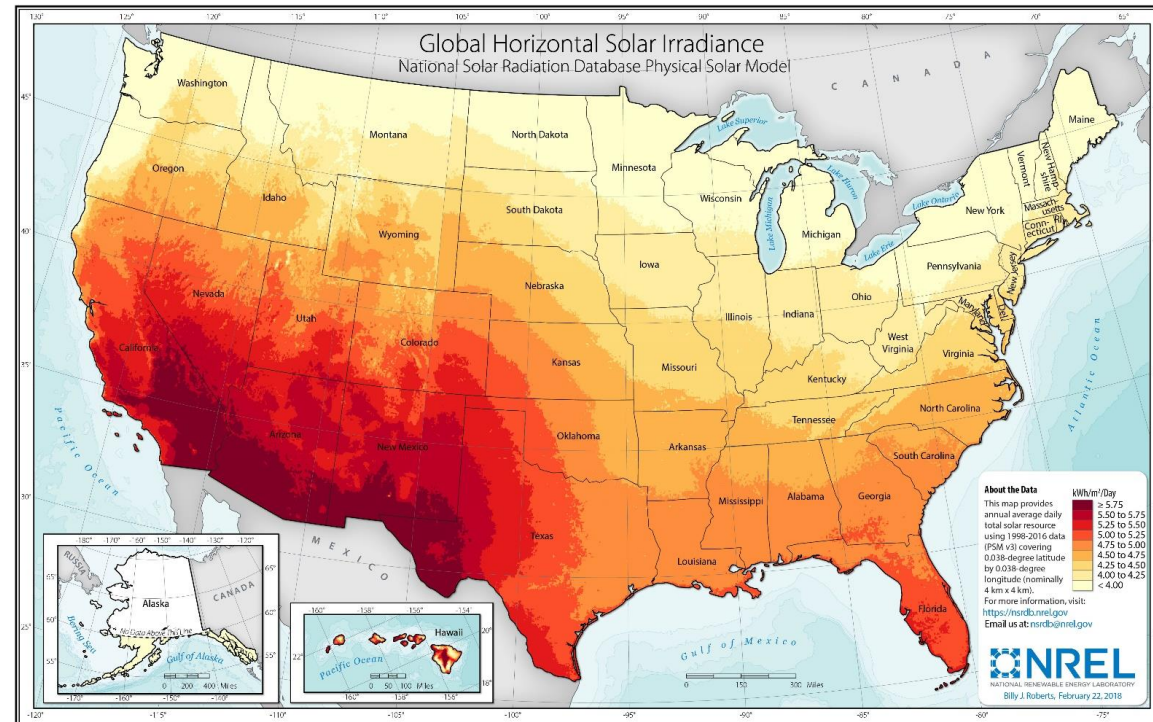


Figure UC-3: Regional distribution of incremental complexity at renewable milestones

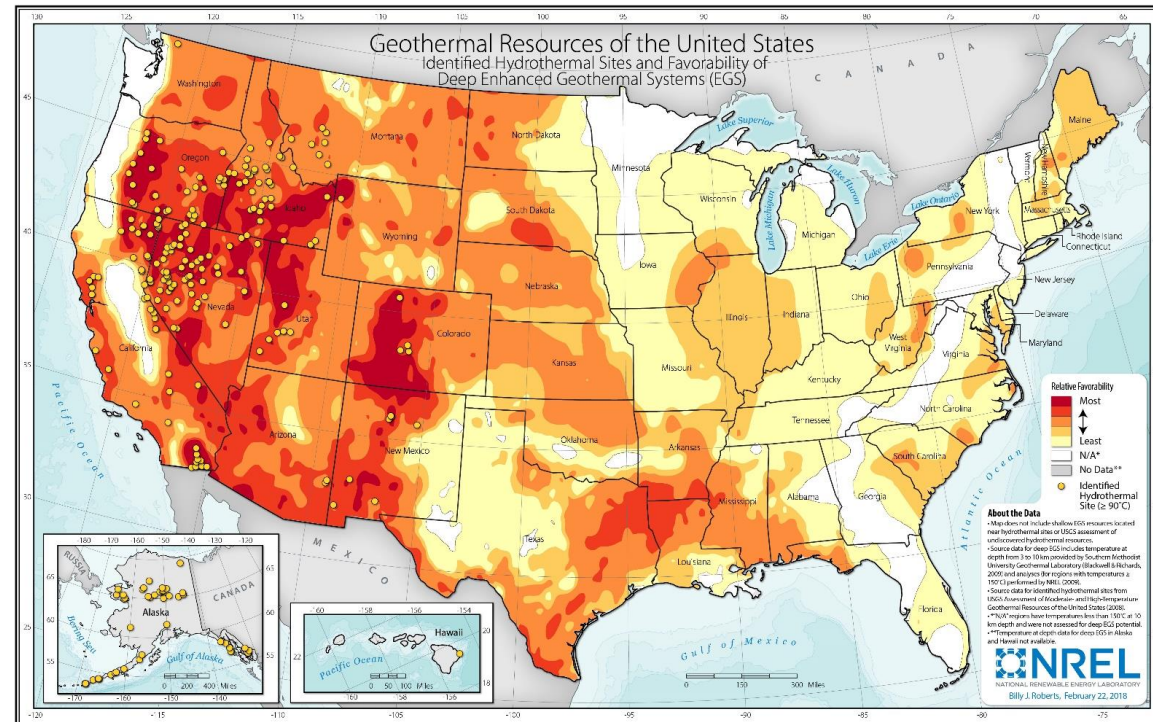
Wind Energy Resources



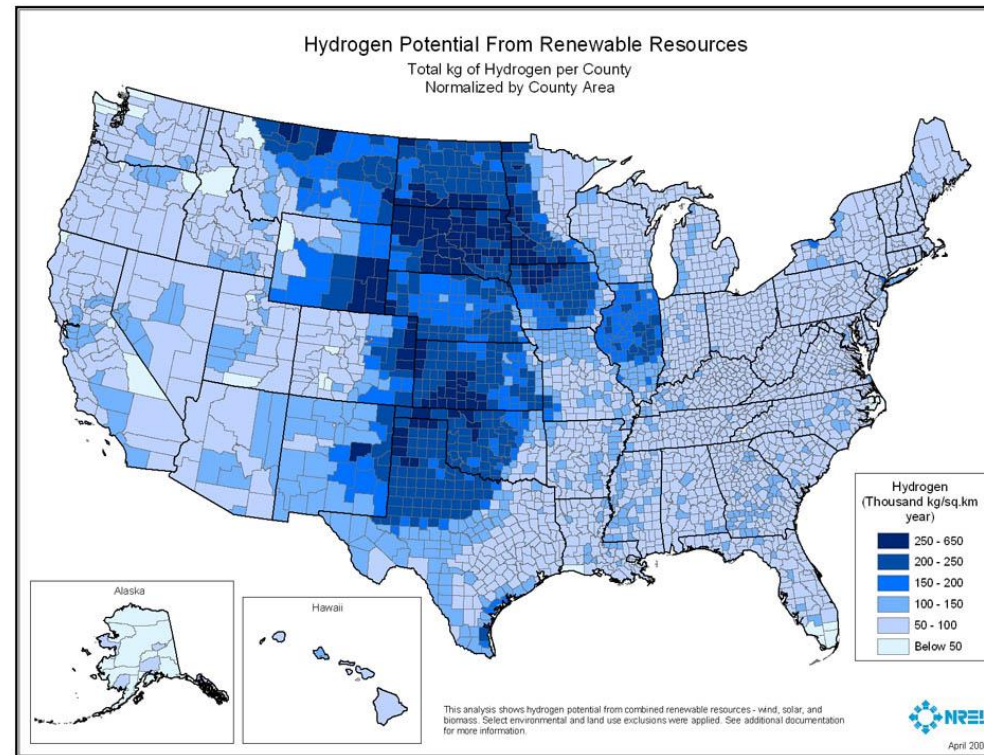
Solar Energy Resources



Geothermal Energy Resources



Renewable Hydrogen



Surface Water Resources



Vigor launches Jones Act liquified ammonia barge

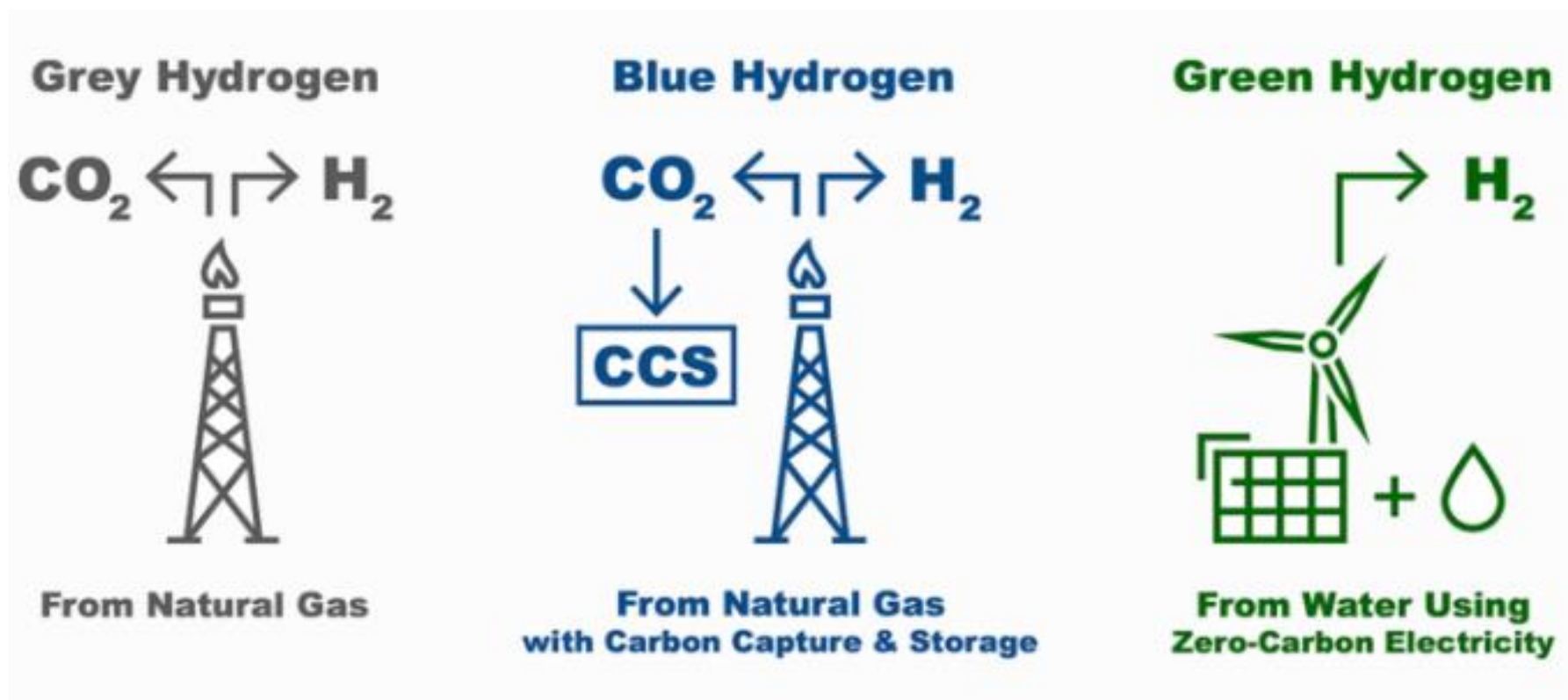
Source: <https://www.workboat.com/shipbuilding/vigor-launches-ammonia-barge>



New 508' liquified ammonia transport barge. Vigor photo

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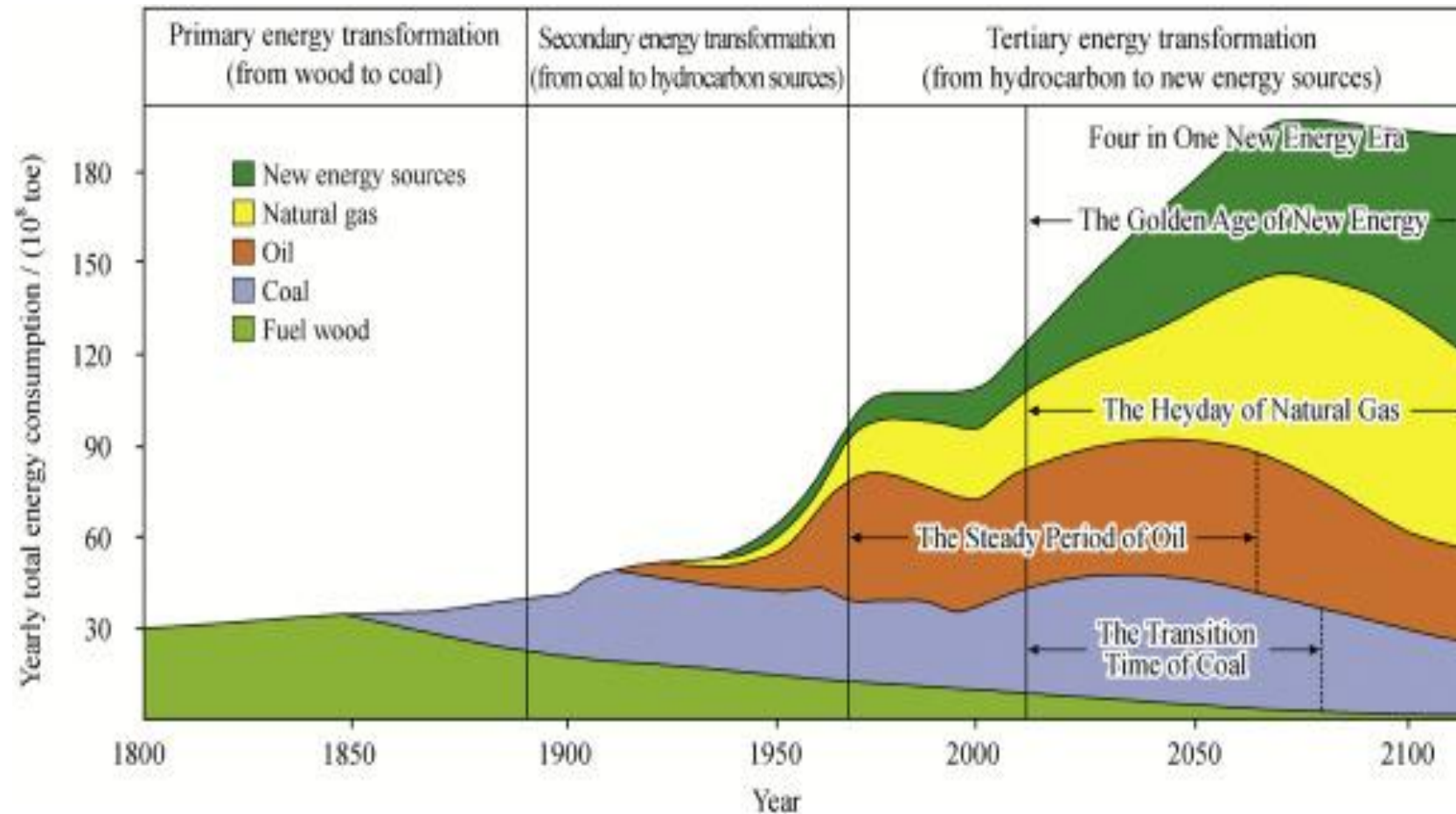
Source: <https://www.long-intl.com/blog/carbon-capture-industrial/>



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Energy Outlook



Takeaways

- ❑ Facilitate a sustainable business environment during the energy addition with constructive thinking
- ❑ Involve stakeholders early in the process to facilitate the equitable distribution of economic benefits arising during the energy addition:
 - ❑ local engagement,
 - ❑ local content, training/employment, and
 - ❑ Sharing economic benefits with underserved communities

Takeaways

- ❑ Provide support for building and sustaining logistical infrastructure with long term cash flow for design, construction, operation and maintenance
- ❑ Look for creative opportunities to enhance the local benefits that landowners and local communities realize in having this infrastructure critical to the CCS/CCUS industry on the land of the landowners or near local communities.
- ❑ Otherwise, the CCS/CCUS industry may substantially limit its advocates and increase its opposition which may ultimately impede the growth in the CCS/CCUS industry especially considering the current legal framework present in the USA.

Thank you! / Contract Details

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