



Energy & Industrials 2022 Policy Outlook

Underappreciated risks and opportunities
the industry will face this year

By: Eric Scheriff

Unprecedented Expansion of Sustainability Policy

Policymakers will pursue an aggressive action on the sustainability front in 2022.

- The specter of a conservative Supreme Court, coupled with upcoming midterm elections, has increased the urgency for climate action while Democrats control Congress.
- Expansion of sustainability policy will take two forms: 1) a heightened focus on resilience that will extend beyond grid reliability to topics like renewable energy supply chain security, and 2) an intensified focus on sustainability outside of power sector decarbonization that will extend to issues like the presence of “forever chemicals” in drinking water and the decarbonization of gas utilities.
- Renewables and clean energy will continue to benefit from policy tailwinds, including tax credits and other provisions contained in the Build Back Better Act.

Major Themes in 2022

Biden Will Flex Executive Authority to Address Climate Change Through EPA

Winners	NextEra (NEE), Exelon (EXC), First Solar (FSLR), General Electric (GE)
Losers	Peabody (BTU), Arch Resources (ARCH), Consol Energy (CEIX), NRG Energy (NRG)

Capstone expects Democrats in Congress will rally behind climate legislation in 2022—with the Build Back Better Act serving as the most likely vehicle—given the risk that conservatives on the Supreme Court will limit the Biden administration’s authority to regulate CO2 emissions through executive action and the probability that Republicans will take at least one chamber in the 2022 midterm elections.

On February 28th, the US Supreme Court will hold oral arguments over the Environmental Protection Agency’s (EPA) authority to regulate greenhouse gas emissions from

power plants, with a decision likely in late Q2 2022. The appeal was filed by West Virginia, North Dakota, and various coal companies after the DC Circuit vacated the Trump administration’s Affordable Clean Energy rule. We believe the specter of a Supreme Court with three justices appointed by President Trump hearing this case, coupled with the upcoming midterm election, will increase the urgency for climate action while Democrats control Congress.

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Growing Focus on Grid Reliability, Need for Transmission, Interconnection, and Storage

Winners	Fluence (FLNC), Quanta Services (PWR), SPDR Utility Index (XLU)
Losers	Industrial Electric Users / Consumers

Capstone expects regulators will prioritize grid resilience and reliability in 2022 by focusing on policies to enhance transmission, interconnection, and storage buildout as increased weather volatility and intermittent resources test the electric grid.

We believe this trend will benefit incumbent transmission owners, construction firms, and battery storage developers. We expect Congress will lower the cost of transmission and storage assets through tax policy, and the Federal Energy Regulatory Commission (FERC) will attempt to lower barriers to entry to new resources through cost allocation reforms.

Regulators will prioritize grid resilience and reliability in 2022.

At the regional transmission organization (RTO) level PJM Interconnection is reforming its interconnection policies to bring new resources online quicker while assessing resource adequacy needs of the evolving grid through a new task force. Texas RTO ERCOT will expand battery storage capacity from 225MW to nearly 900MW by the end of 2021, with an additional 3GW planned for 2022.

We expect additional standalone and paired storage assets to come online as Texas

regulators design market rules to prioritize and incentivize dispatchable generation in the aftermath of Winter Storm Uri.

Onshoring of the US Renewable Energy Supply Chain

Winners	First Solar (FSLR), General Electric Co. (GE), TPI Composites (TPIC), Broadwind Energy (BWEN), Array Technologies (ARRY), MP Materials (MP), Tesla (TSLA), Rivian Automotive (RIVN), GM (GM), Ford (F)
Losers	JinkoSolar (JKS), Canadian Solar (CSIQ)

As state and federal policies to incentivize the adoption of renewable energy grow in strength, policymakers are likely to shift their focus to ensuring that the US can maintain energy independence in a future powered by renewable energy. Companies that can successfully onshore parts of the renewable energy supply chain are likely to benefit from favorable tax and tariff treatment while avoiding issues related to forced labor.

2022 is likely to see several policy changes favoring the onshoring of renewable energy supply chains. We break down some of the biggest below:

Tax Policy: The Build Back Better Act includes domestic content provisions tied to the investment tax credit and production tax credit (PTC) in addition to specific manufacturing production tax credits for solar and wind manufacturers and the more general Section 48C tax credits supporting investment in clean tech manufacturing more broadly.

Trade Policy: President Biden will likely decide whether to extend President Trump's tariffs on imports of solar modules by early February. In the absence of the strong tax

incentives for domestic manufacturing contained in the Build Back Better Act, President Biden may favor a decision closer to the 15% tariffs declining by 0.25% each year for four years proposed by the International Trade Commission than he otherwise would have.

Forced Labor: The Biden administration sought to combat the use of forced labor in the solar supply chain with its issuance of a Withhold Release Order (WRO) targeting polysilicon sourced from the Xinjiang region of China in June 2021. As a result, imports of solar modules and cells have faced significant difficulty clearing customs. Congress recently added to the growing focus on the use of forced labor in China with the passage of the [Uyghur Forced Labor Prevention Act](#) (UFLPA) on December 16th. As a result, all products with potential ties to the Xinjiang region will face similar scrutiny to that recently faced by the solar industry following the development of an interagency report by mid-year. These actions are likely to endure regardless of which party controls the White House. Therefore, domestic manufacturers are likely to enjoy a sustained competitive advantage.

Rare Earth Minerals: In September, the Biden administration initiated a Section 232 investigation into the risks to US national security posed by imports of neodymium magnets. Neodymium magnets are used in a range of applications, including wind turbines, electric vehicles (EVs), and missiles. We expect the Department of Commerce to issue a report by the end of Q3 2022 recommending actions the Biden administration could take to address concerns about dependence on imported neodymium magnets, including tariffs, changes in government procurement, and tax credits such as those in a [bill](#) sponsored by Rep. Eric Swalwell (D-CA). Any action to support domestic production of neodymium magnets would benefit MP Materials Corp.

(MP), which owns and operates Mountain Pass, the only integrated rare earth mining and processing site in North America.

Electric Vehicles: In 2021, electric vehicles accounted for around 5% of US automotive sales, bolstered by Tesla's (TSLA) delivery of nearly 1 million vehicles. The Biden administration aims to increase this share to 50% by 2030 and to reduce the reliance on imports of component parts like lithium-ion batteries, particularly from China. In June, the administration conducted a 100-day battery supply chain [review](#) and has pushed for significant tax credits for EVs and batteries manufactured in the United States as part of its Build Back Better climate agenda. Major US-based companies like Ford (F) and General Motors (GM) have already hastened plans for greater domestic EV manufacturing alongside a growing demand for electric versions of popular existing models. In 2022 and beyond, production incentives at the federal level will also be bolstered by an increased willingness and desire at the state and local levels to incentivize the construction of new EV factories in the US, already recently seen in Rivian's (RIVN) \$5B factory in Georgia and Toyota's (TM) \$1.3B battery assembly plant in North Carolina.

California's Double Down on Climate Will Inspire Other States

Winners	California Carbon Allowance (CCAs) holders with minimal or no compliance obligation able to trade CCAs, biofuels producers including Renewable Energy Group (REGI), providers of electric vehicle charging infrastructure such as ChargePoint Holdings Inc. (CHPT)
Losers	Obligated parties, especially those in hard-to-abate sectors with large compliance obligations, including gas generators, refiners, cement, steel, glass, and other industrial production processes

We expect significant movement for climate policy in California in 2022. State regulators plan to release their draft 2022 Scoping Plan Update this spring. The update will form the basis of increases in the stringency of core California environmental policies, including the cap-and-trade program and Low Carbon Fuel Standard (LCFS). Like previous Scoping Plans, the 2022 iteration will have profound implications in California.

However, it will also have an outsized impact beyond the state's borders as other states increasingly look to California as an example for achieving decarbonization outside of the power sector.

We believe California regulators will increasingly think about decarbonization outside of its borders in 2022. In our conversations, it has often been clear that California policymakers consider the successful adoption of policies similar to signature California environmental policies in other geographies as a key measure of their success. Accordingly, we expect regulators to use the Scoping Plan process

to highlight the ability of programs like cap-and-trade and the LCFS to make good on California's climate goals.

We also expect conversations around jurisdiction linkage in the cap-and-trade program to intensify, likely with Washington and New Zealand, which would allow participation across the jurisdictions.

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Though linkage is less core to the evolution of the LCFS, programs similar to the LCFS are highly likely to be considered in other states this year, and it is likely that current and former California regulators will play a role in these discussions. In particular, we would highlight New Mexico, New York, Minnesota, and Massachusetts as states most likely to consider adopting an LCFS-like policy in 2022.

Energy and Industrials Sector Opportunities in 2022

Biofuels to Benefit from Proposed Blending Obligations that Are Bullish for RIN Prices

Capstone believes the proposed renewable volume obligations (RVOs) from EPA remain bullish for RIN prices despite a mixed bag of revisions throughout the comprehensive rulemaking set to be finalized in late Q1 2022. We believe the revisions to 2020 RVOs and 2021 RVOs based on actual supply were

largely consensus in the market, and RIN pricing accounted for these moves signaled by EPA and referenced in the July 2020 “leak.”

Most importantly, the proposed RVOs imply a 15-billion-gallon mandate for corn ethanol in 2022—a bullish sign for D6 RIN prices and the opposite outcome desired by the refining industry. Effectively, refiner hopes were dashed that EPA would set volumes in a manner that would decouple D6 RINs and D4 RINs—depressing D6 prices by up to 90% from recent levels and slashing compliance costs for refiners given the outsized mandate for D6 compliance.

Refiners will likely face lower RIN compliance costs than the highs experienced in Q2 of 2021 of >\$1.80/credit but did not receive the material relief from decoupling. We also view the 2022 “Set” of the program as a pivotal decision point for EPA given their lack of departure from the mandatory corn ethanol volumes in the 2021 rulemaking.

We view the proposed RVOs as negative for refiners with large RIN compliance cost exposure or expectations of compliance exemptions, such as PBF Energy Inc. (PBF), CVR Energy Inc. (CVI), Par Pacific Holdings Inc. (PARR), HollyFrontier Corp. (HFC), Delek US Holdings Inc. (DK), Calumet Specialty Products Partners LP (CLMT).

Nuclear Power Plants to Benefit from Production Tax Credit (PTC)

Capstone assigns a 65% probability that Congress will pass the Build Back Better Act in Q1 2022 with robust clean energy tax credits, including a new \$15/MWh PTC for existing nuclear plants that fluctuates depending on realized revenue at the plant level.

Despite Sen. Joe Manchin’s (D-WV) negative remarks on the bill in December 2021, we continue to expect Congress will pass a

revised Build Back Better Act that leaves the \$330 billion in clean energy tax credits relatively intact, particularly the credits that Sen. Manchin supports like the nuclear PTC. Passage of the nuclear PTC would benefit nuclear plants owners, including Exelon (EXC), Energy Harbor (ENGH), and Talen (private).

Enbridge Line 5 Likely Stays in Service Near-Term

Capstone assigns a 71% probability that Enbridge’s (ENB) Line 5 remains in service in the near-term, against the backdrop of ongoing US-Canada discussions on the pipeline. Enbridge has transferred the Michigan Attorney General Dana Nessel’s (D) state court case pursuing shutdown of Line 5 into federal court. As we expected, the AG is requesting remand back to state court, arguing that Enbridge is outside the 30-day window for removal, which would have begun in 2019. We think the issue of venue is likely to be settled by the end of Q2.

Separately, in Enbridge’s case seeking declaratory judgment and injunctive relief against the Michigan AG’s shutdown order, parties will brief into Q2 on dismissal and partial summary judgment. In Enbridge’s bid to build a tunnel encasing a new segment of pipeline through the Straits of Mackinac, we expect an in-service date likely in 2026 or beyond, with a Michigan Public Service Commission (MPSC) decision that we doubt will pose material risk to the project likely coming by Q3 2022.

Meanwhile, the US Army Corps of Engineers review will continue. Finally, Enbridge is working on completing a reroute of Line 5 in Wisconsin before an October 24th trial date with the Bad River Band concerning expired easements. We expect the review schedule for the Wisconsin EIS likely means Enbridge misses its planned construction window of February to August—the comment period on

the draft EIS ends March 4th, and Enbridge has committed to not clear vegetation between March 5th and July 31st to avoid migratory bird impacts. Therefore, although we doubt the Wisconsin review poses existential risk to the reroute, we believe Enbridge is likely to contend with the trial this year absent court-granted relief.

Renewable Natural Gas (RNG) Becomes Mainstream, to Benefit from New State Policies

Capstone believes the renewable natural gas (RNG) industry faces a multitude of tailwinds in 2022 in the form of attractive credit support, a favorable outlook with utilities, solidification of feedstock longevity, and a growing ledger of incentive programs both domestically and abroad. Moreover, we see the already-robust suite of federal and state incentives for the use of RNG as transportation fuel—such as the federal Renewable Fuel Standard and California's Low Carbon Fuel Standard (LCFS)—growing substantially as several states look to expand incentives, subsidies, and mandates around RNG use.

The renewable natural gas industry faces a multitude of tailwinds in 2022

Methane accounts for about 10% of all domestic greenhouse gas emissions, a quarter of which is comprised of emissions from prominent RNG feedstocks' livestock manure (9%) and landfill waste (17%). As a result, momentum for further integration of RNG into domestic decarbonization efforts is increasing as states look for expeditious mechanisms to reduce their carbon footprint.

We expect utilities across North America to begin to institute RNG targets comparable to those recently set by SoCalGas (20% of supply mix by 2030), VGS (20% by 2030), NW Natural (15% by 2030, 30% by 2050), and FortisBC (15% by 2030), especially in regions with ample supply of feedstock.

Furthermore, we expect domestic energy policy to continue incentivizing RNG integration into statewide energy profiles, best exemplified by North Carolina's Renewable Energy Portfolio Standard (REPS), the first such standard to include set-asides for livestock-generated RNG.

Final Environment Impact Study (EIS) a Key Catalyst for Dakota Access Pipeline

We believe Energy Transfer Partners' (ET) Dakota Access Pipeline (DAPL) is on the path for reapproval, with the most consequential catalyst for DAPL being the court-ordered final environmental impact statement (EIS), which we expect in late 3Q 2022—a positive for the pipeline. Reports indicate the US Army Corps of Engineers continues to work through the process with stakeholders, and we expect a favorable outcome at that time.

We do not view the possibility of a Supreme Court review of the need for the EIS as likely, though a review and ruling for ET would eliminate roughly 2-3 months of uncertainty overhang pending the outcome of the EIS.

Energy and Industrials Sector Risks in 2022

Litigation-Related Delays for Equitrans' Mountain Valley Pipeline

Capstone assigns a 40% probability that Equitrans Midstream's (ETRN) MVP will enter

service in 2022, given our expectation that the Fourth Circuit Court of Appeals will likely issue an adverse decision on the project Forest Service permit and/or Biological Opinion. We expect the Fourth Circuit will remand at least one of the permits for additional analysis, likely preventing the project from resuming construction in 2022 while the Biden administration works on the permits. We expect the remand analysis will likely take 8-12 months. We expect the court to issue a decision in early Q1 2022.

EPA Ramps Up Aggressive Regulations on PFAS Chemicals

Capstone assigns a 90% probability that will issue a proposed Superfund designation for PFOS and PFOA in 2022, and a 90% probability that the EPA will propose a drinking water standard for PFOS and PFOA by Q1 2023. Under Superfund designation, companies determined responsible for site-based PFOA and PFOS contamination by EPA incur strict, joint and several, and retroactive liability.

For drinking water standards, we expect water providers to bring litigation against PFAS-manufacturing and -discharging companies for cost recovery, as we have seen already in the case of state-level standards. We expect both proposals to pose headline risk to PFAS manufacturers and dischargers such as 3M (MMM), Chemours (CC), and DuPont (DD). In particular, the EPA is likely to announce a zero parts per trillion (ppt) proposed standard for PFOA, which is typical for substances EPA has classified as carcinogenic or likely carcinogens. We believe this will be a negative headline but will not lead to a final standard of 0 ppt, since the final standards are also based on feasibility, while the proposal is based solely on public health risk.

On the litigation front, we flag a drinking water and property contamination trial based in Michigan for 3M and Wolverine World Wide Inc. (WWW) on June 6th, as well as New Hampshire-based claims regarding water remediation, property damage, and medical monitoring for a class of up to 9,000 going to trial on August 2nd.

In the massive aqueous film-forming foam (AFFF) litigation, we expect the first prong of the government contractor defense to be decided by the end of Q2, bellwether selection by September 30th, and then a trial to be scheduled for any time after January 1, 2023. For Chemours, DuPont, and Corteva, certification of a proposed property class action with up to 800,000 members is likely to be decided in the second half of 2022.

Royalty Rate Increases Likely to Hit E&Ps

We believe royalty rates for drilling on federal lands are likely to increase for oil and gas exploration and production companies (E&Ps), particularly those operating in the Permian, such as Devon Energy Corp. (DVN), ConocoPhillips (COP) (large exposure via the Concho acquisition), EOG Resources Inc. (EOG), and Occidental Petroleum Corp. (OXY). Additionally, the Gulf of Mexico levered E&Ps such as privately held Murphy Oil and offshore-centric oilfield servicers such as Transocean Ltd. (RIG) and Dril-Quip Inc. (DRQ). However, we believe sentiment around the elimination of percentage depletion or intangible drilling costs reductions are overstated.

We view the Build Back Better act as the most likely vehicle for this rate increase, and the US Department of the Interior has positioned itself to take action in the scenario where BBB falters. A rulemaking process through the Department of the Interior would likely be a multi-year process,

but the administration has been direct in its position that royalty rates for producers on federal lands must rise.

The Managed Shift in Net Metering

We expect California’s net metering revisions, NEM 3.0, will be finalized in early 2022, incentivizing paired solar and storage development over standalone rooftop solar. This policy change will use a variable, avoided cost rate highest in the late afternoon and early evening when the state faces a solar output decline alongside an increase in load, often referred to as the “duck curve.”

We expect NEM 3.0 to serve as a blueprint for policies introduced and implemented in

other states. Policymakers in North Carolina and Florida, the states with the 3rd and 4th largest installed residential solar capacity, have already recently proposed similar policies.

In 2022, this policy change will likely slow the growth of the California residential solar industry—by far the country’s largest—by increasing the payback period of net metered installations. However, this impact will be significantly blunted by long-term declines in solar and storage costs and the state’s mandate for rooftop solar and storage for new buildings. A short-term decline followed by long-term growth in the California solar market is not unprecedented – a temporary slowdown in installations occurred in 2017, the first year all major utilities in California had implemented NEM 2.

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