
ECOUPDATE

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**MONTHLY
CALIFORNIA
ENVIRONMENTAL
LAW & POLICY
UPDATE**

ENERGY — IEA REPORT

On October 24, the International Energy Agency issued its annual World Energy Outlook report. The report concluded the energy sector faces uncertainty and volatility due to high geopolitical tensions and rapidly shifting supply dynamics. Among the report's key findings: (1) the demand for all fossil fuels (coal, oil and natural gas) are expected to peak before 2030; (2) fossil fuels have accounted for 80% of the world's energy supply for years, but that number is expected to decline to 73% by 2030; (3) energy demand in China is expected to peak in 2025 and decline thereafter; (4) renewables will account for about 80% of added energy capacity during the remainder of the 2020s; (5) significant liquified natural gas capacity will come online by 2025, easing pricing and supply concerns created by the Ukraine war; (6) energy-related CO₂ emissions are expected to peak in the mid-2020s; and (7) global temperatures have increased by 1.2°C from pre-industrial levels and are expected to exceed pre-industrial levels by 2.4°C by 2100.

CLIMATE — COP 28

The 28th UN Climate Change Conference took place in Dubai from November 30 to December 12. Early in the conference agreement was reached on a loss-and-damage fund to compensate developing nations for impacts of climate disasters. The World Bank will administer the fund and Germany, the UAE, the US, and Japan have pledged contributions. About 120 countries pledged to triple renewable energy capacity by 2030. Significant blocs have committed to expand nuclear power and limit methane emissions. The conference is expected to tackle the phase-out or phase-down of fossil fuels, a contentious and controversial issue.



CLIMATE — REFORESTATION

On November 13, more than 200 scientists led by researchers from ETH Zurich published a study in the journal *Nature* concluding that current global forest carbon storage is markedly below its full natural potential—with a current deficit of 226 gigatons (Gt) (range: 151 to 363 Gt). The study combined several ground-source and satellite-derived approaches to determine carbon-storage potential outside urban and agricultural areas. Most of the potential lies in forested areas, which could be achieved if forests were to recover to maturity. The remaining potential lies in fragmented or deforested areas. A similar study by ETH Zurich researchers published in 2019 drew criticism largely for political reasons (arguing it encouraged continued emissions). The new study is more data intensive and corroborates the prior conclusions. About 700 Gt of carbon have been released since the dawn of the Industrial Revolution.

CLIMATE — NATIONAL CLIMATE ASSESSMENT

On November 14, the US Government released its Fifth National Climate Assessment, a Congressionally mandated compilation issued every five years. Major findings include: (1) advances in adaptation can reduce climate risks; (2) meeting US mitigation targets means reaching net-zero emissions; (3) current climate changes are unprecedented over thousands of years; (4) risks from extreme weather events are increasing; (5) disruptions to food systems are expected to increase; (6) homes and property are at risk from sea level rise and more intense storms; (7) infrastructure is increasingly damaged by extreme weather and sea level rise; (8) ecosystems are undergoing transformational changes; (9) climate change slows economic growth while climate action presents opportunities; (10) the US is warming faster than the global average; and (11) mitigation and adaptation actions can result in cascading benefits.





WATER — SITES RESERVOIR

On November 17, the final EIR for the Sites Reservoir was approved by the Sites Project Authority, the CEQA lead agency. Earlier in November, final plans for the reservoir were released by the Bureau of Reclamation and the Sites Project Authority. Construction is expected to start in 2025. The Sites Reservoir will store water from the Sacramento River in an off-stream facility. With a capacity of 1.5 million acre-feet, the Sites Reservoir will become the 7th largest reservoir in the state upon completion. The reservoir will be located about 80 miles northwest of Sacramento in Colusa County. The project is estimated to cost \$3.9 billion.

CALIFORNIA POLICY — ASSEMBLY APPOINTMENTS

Assembly Speaker Rivas has elevated political allies to Assembly committee chairs. Assemblymember Diane Papan will chair the Water, Parks and Wildlife committee. The former San Mateo city council member supported Rivas early in his campaign for Speaker. In local government, she focused on climate resilience and local water issues, and is regarded as a moderate. Asm. Lori Wilson will chair the Transportation Committee. She has been endorsed by the California Building Industry Association and is likely to seek balanced policy outcomes. Asm. Isaac Bryan, a Los Angeles progressive, will chair the Natural Resources Committee, replacing Asm. Luz Rivas, a fellow Los Angeles Democrat and one of the Legislature's most outspoken environmental justice champions. Asm. Cottie Petrie-Norris will chair the Utilities and Energy Committee. The Orange County Democrat is a moderate and an unexpected pick, having never served on the committee. She replaces Asm. Eduardo Garcia, who will chair the Environmental Safety and Toxic Materials Committee.

CLIMATE — FEDERAL METHANE RULE

On December 2, EPA announced a final rule establishing methane emission standards from oil and gas operations. EPA estimates the rule will reduce methane emissions from regulated sources by about 80%. The rule will require regular inspection of wells and compressor stations and will phase out routine flaring at existing wells. The rule also establishes a "super emitter" program in which certified third parties can notify EPA of large methane releases for potential agency action. Perhaps more importantly, the rule utilized a new "social cost of carbon" benchmark of \$190 per ton in its cost-benefit analysis of the rule. EPA has indicated that it will use the new cost value in future climate regulations.

CALIFORNIA POLICY — BUDGET

On December 7, the Legislative Analyst’s Office released its report on California’s fiscal outlook. The report finds that California is facing a \$68 billion deficit, largely as a result of a severe revenue decline in 2022–23, due to California’s entering an economic downturn in 2022. Unemployment increased from 3.8 to 4.8 percent, and personal incomes posted five straight quarters of year-over-year declines. At the agency level, the Cal/EPA budget will decline from \$10.6 billion to \$5.9 billion and the Natural Resources budget will decline from \$24.2 billion to \$13.3 billion. The changes are primarily due to a large amount of one-time funding provided to the agencies in the prior fiscal year, which has now expired.



CLIMATE — SIERRA NEVADA FORESTS

Researchers at Stanford published a study in the journal PNAS Nexus concluding that 20 percent of all conifers in the Sierra Nevada region are located in areas that are now too warm to support regeneration of the trees, a phenomenon called vegetative climate mismatch (VCM). Any catastrophic event, such as wildfire, that occurs in a VCM forest will result in the forest

being unable to regenerate and new plant species moving into the area. In general, climate change has caused vegetation to move poleward and upslope. The researchers concluded that conifer forest will not survive long-term at elevations below 7,700 feet in the Sierra Nevada and will ultimately be replaced by scrub oak, chaparral oak, manzanita and broadleaf forest.

ENERGY — IEA INDUSTRY REPORT

On November 23, the International Energy Agency released a special report about the role of the oil and gas industry in the ongoing energy transition. IEA projects that “peak oil” will occur before 2030 and that demand for oil and gas will be 45% below today’s level by 2050. However, most oil and gas producers are not participating in the energy transition, accounting for only 1% of clean energy investment globally. The IEA report suggests two initiatives: (1) cutting emissions from oil and gas operations, particularly methane; and (2) diversifying existing oil and gas technologies into adjacent areas, including offshore wind, geothermal, hydrogen, and carbon capture. The report warns that as the market shrinks, economic advantage will inure to the lowest-cost producers –national oil companies in the Middle East.

HAZARDOUS SUBSTANCES — LEAD

On November 30, EPA announced revisions to the Lead and Copper Rule intended to achieve 100% lead service line replacement in all water systems nationwide within ten years. More than 9 million lead services lines remain in service. EPA is also proposing to lower the lead action level at the tap from 15 parts per billion to 10 ppb. EPA estimates the cost of the regulation at \$45 billion, while drinking water providers estimate the costs at \$60 billion. The Bipartisan Infrastructure Law of 2021 provides \$15 billion in funding for lead service line replacement, leaving a significant funding gap.



HAZARDOUS SUBSTANCES — PLASTIC WASTE

On November 15, the world's largest plastic recycling facility was opened by Swedish Plastic Recycling, a non-profit company co-owned by plastics and packaging trade groups in Sweden. The facility can sort up to 200,000 tons of plastic packaging per year and is intended to allow essentially all plastic packaging from Swedish households to be recycled. The plant currently handles four types of plastic waste, but will eventually be able to handle 12 different types. The plant is fully automated, using near-infrared sensors, and cost approximately \$100 million to build.

WATER — GROUNDWATER

The New York Times has published several additional articles in its series on groundwater issues. The general thesis of the series is that the "federal government plays no role in regulating groundwater extraction, leaving that to individual states, but a growing number of advocates and experts say Washington must intervene to protect the country's depleting aquifers." The Times stated that its reporting showed that "the struggle is intensifying between those who benefit from pumping large amounts of groundwater and those who see it as a looming catastrophe." One of the articles noted that Sen. Wyden (D-Ore.) held a hearing on the "country's drinking water crisis" following the Times' initial article on groundwater issues in September.

ABOUT THE AUTHOR



Clif McFarland has extensive experience in environmental law with a strong science background. As an MIT-trained engineer, Clif helps his clients to resolve difficult legal problems that are intertwined with complex scientific issues.