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**Energy & Carbon Management
Commission**

Department of Natural Resources

The Outcomes of More Stringent and Strengthened Energy Regulations: A Comparison of 2016 to 2025

Prepared by the Energy & Carbon Management Commission
for the Joint Energy Committee
1/16/2026

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Resultados de una normativa energética más estricta y reforzada: Comparación entre 2016 y 2025

Elaborado por la Comisión de Gestión de Energía
y Carbono para el Comité Conjunto de Energía
16/1/2026

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As the state of Colorado addresses climate change and sets a path forward for net-zero greenhouse gas emissions by 2050, the General Assembly in 2019 put in place a new mission for the state's energy development regulator. As directed by SB23-016 and SB23-285, the former Colorado Oil and Gas Conservation Commission became the Colorado Energy and Carbon Management Commission (ECMC) with expanded regulatory authority on July 1, 2023.

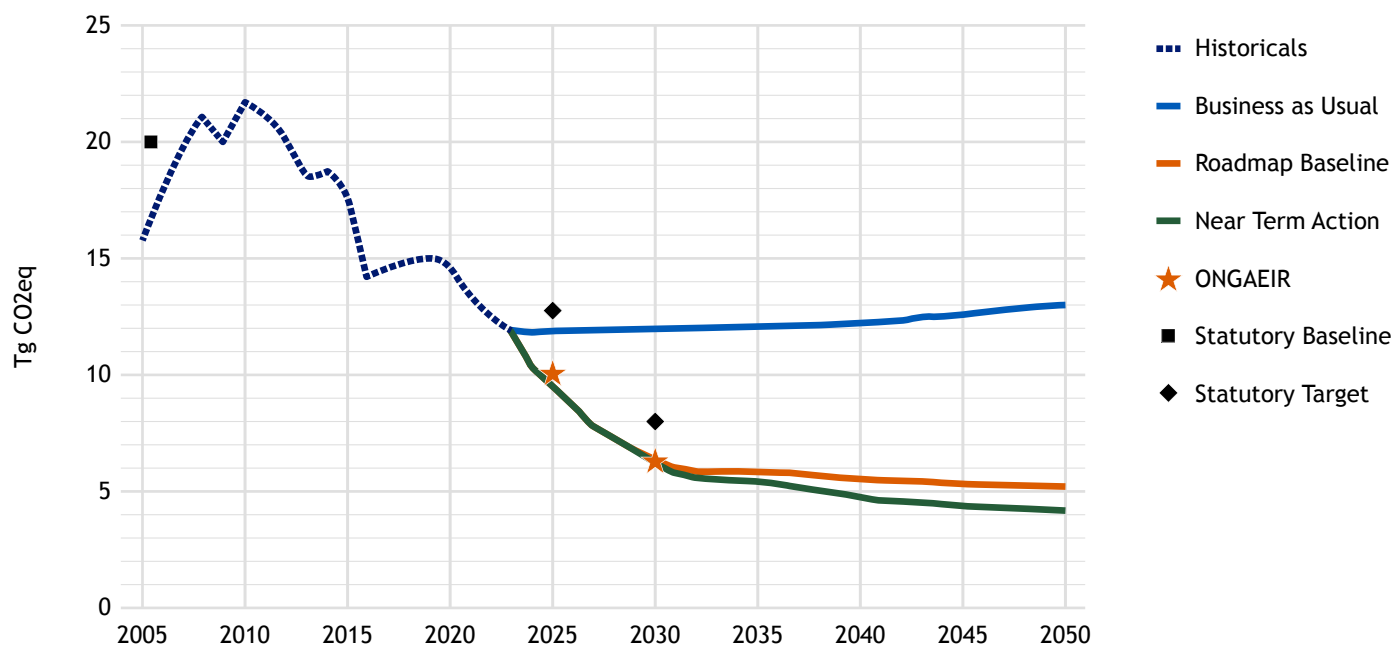
ECMC now regulates not only oil and gas development, but also emerging energy sectors of deep geothermal and carbon storage. The expansion of ECMC's regulatory authority followed a multiyear process begun by SB19-181 to transform the Commission's mission from fostering oil and gas development to regulating it in a manner that protects public health, safety, welfare, the environment and wildlife resources.

That process included new rules adopted between 2019 and 2021 that added novel requirements for oil and gas development related to flowlines, wellbore integrity, cumulative impacts, protection of disproportionately impacted (DI) communities, wildlife protection and financial assurance, among others. In total, ECMC has adopted 18 new rules promulgated since SB19-181. In July 2020, the Commission also transformed from a volunteer board mostly run administratively by its director to a full-time, five-member professional Commission.

As a result of this unprecedented series of General Assembly delegations of new, more protective authority and the ensuing rulemakings over the last six years, Colorado has the most protective regulations for oil and gas development in the nation. Significantly, in October 2024, the Commission unanimously adopted Cumulative Impacts and Enhanced Systems and Practices Rules, as directed by SB24-229 and HB24-1346, that further strengthened ECMC's protective regulatory framework and added new protections for DI communities.

These transformative regulations have positively impacted both the processes and outcomes associated with energy operations in Colorado. Notably, the biennial Greenhouse Gas (GHG) inventory model shows that the Oil and Gas Sector is achieving and exceeding its GHG emission reduction goals. More data on climate-related outcomes are published in the Director's 2024 Report on the Evaluation of Cumulative Impacts.

Historical, Projected, and Target Oil and Gas Sector GHG Emissions

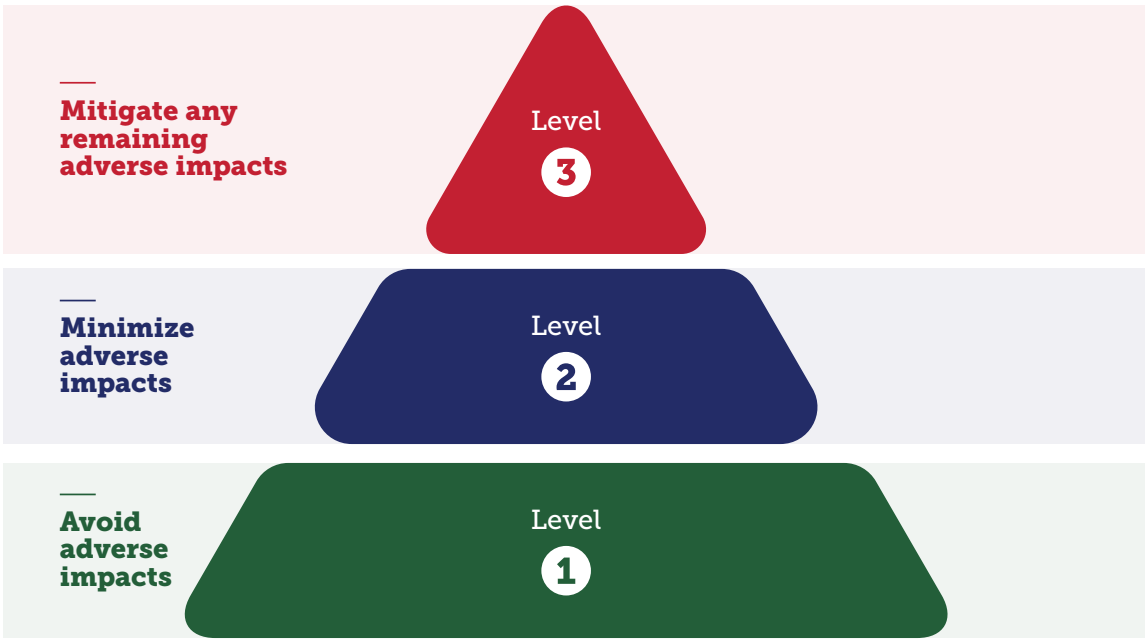


Source: Colorado Department of Public Health and Environment,
HB19-1261 GHG Emission Reduction Progress Report to the Colorado Legislature



The Commission’s Decision-making Model Rooted in ECMC’s Mission

To fulfill its mission of regulating energy development in a manner that protects public health, safety, welfare, the environment and wildlife resources, ECMC uses a mitigation hierarchy to ensure that adverse impacts are first avoided, then minimized. Where not avoided or minimized, they must be then mitigated.



Mitigation Hierarchy

Steps to Issue Resolution

Agency Funding

ECMC is primarily funded by operator fees. ECMC imposes and collects fees on energy operators. These fees are a core component of the state's regulatory framework to ensure operators – not taxpayers – cover the agency's costs of operations, enforcement and environmental remediation. In addition to operating fees, ECMC also imposes and collects penalties when an operator is found non-compliant with rules through ECMC's enforcement procedures.

Separately, the Colorado Department of Revenue oversees the Colorado Severance Tax. Severance Tax is a tax imposed upon nonrenewable natural resources that are removed from the Earth. Any entity that receives income from oil and gas production of nonrenewable natural resources must file a Severance Tax return. Local counties and municipalities also collect taxes from operators.

Financial Assurance

In order to conduct oil and gas operations in Colorado, an operator must provide financial assurance – commonly called a bond or surety – that demonstrates it is capable of fulfilling every financial obligation imposed by the Commission. As one example, state law requires operators to plug a well at the end of production. Plugging a well is the process of permanently sealing a well to prevent the release of hydrocarbons and other fluids into the environment. Plugging costs vary wildly and generally fall within a range of \$20,000 to \$140,000 per well. Financial assurance protects Colorado taxpayers by ensuring operators – not taxpayers – pay for any potential obligations during the life cycle of operations.

The Commission claims a bond when an operator fails to perform statutory and regulatory obligations. The Commission releases a bond when an operator has complied with all such obligations. Financial assurance requirements and procedures are set out in the Commission's 700-Series Rules and were significantly updated in the 2022 Financial Assurance Rulemaking, as required by SB19-181.

In addition to meeting ECMC's financial assurance requirements, oil and gas operators are also required to pay per-well fees into the Orphan Wells Mitigation Enterprise (OWME) to fund the plugging of orphaned and marginal wells. In fact, per rule, operators must now remit their Mitigation Fee and Marginal Well Fee to the OWME on the same date they submit a permit application.

To become a registered and active operator, the following steps must occur:

- ➔ Register with ECMC via the Operator Registration form (Form 1)
- ➔ Register a "Principal Agent" via the Designation of Agent form (Form 1A)
- ➔ Submit the License Renewal and Annual Registration form (Form 1B)
- ➔ Successfully complete the permit application process (forms are dependent on type of operation)
- ➔ Complete the Financial Assurance Plan (Form 3)
- ➔ Provide documentation of financial assurance and instruments (Form 3A)

The 700 series rules established requirements for financial assurance for oil and gas operations in the state of Colorado. These rulemaking hearings were an outcome of over a year's worth of collaboration and input from a diverse group of individuals and stakeholders. Significant changes and protections from this rulemaking include:

- Ensuring each operator has the financial capability to meet all of their obligations under the Act through the development of first-ever individual operator-specific financial assurance plans;
- Increasing financial assurance for transferred and inactive wells;
- Requiring financial assurance accounts for new wells funded in the initial years of operations;
- Creating an orphan well fund;
- Applying Colorado's new rules to federal wells for the first time;
- Broadening access for local governments regarding the plugging of wells.

[Read more here:](#)



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Compliance and Enforcement

ECMC has a team of expert compliance specialists who monitor oil and gas sites for compliance with ECMC’s rules. They work throughout the state and inspect oil and gas locations on-site. Every well in Colorado is on an inspection schedule. Additionally, compliance specialists will inspect a site when an issue arises or if a community member uses ECMC’s complaint submission form to request an investigation.

We strive for operator compliance with ECMC’s protective rules and work with operators so that they meet our standards. Gaining compliance can come in the form of outreach training, voluntary compliance after the issuance of a corrective action and/or warning letter, or more formal actions related to a Notice of Alleged Violation (NOAV). Compliance specialists may request an operator to take actions to correct minor instances of non-compliance. In 2025, the Compliance Unit completed **29,157 inspections**.

Furthermore, ECMC’s Environmental Unit consists of reclamation specialists and environmental protection specialists located throughout the state who provide oversight during spill and release responses, monitor remediation projects and ensure that oil and gas sites are restored to their predisturbance conditions following oil and gas exploration and production activities.

When an operator is alleged to be non-compliant with ECMC’s regulations, ECMC has the authority to investigate, impose penalties and issue orders, including cease and desist orders. ECMC’s jurisdiction is limited to our regulatory authority, so we refer matters to other entities when needed. In 2025, 87 NOAVs were resolved by enforcement orders. In 2025, 52 orders included penalties (fines) totaling \$33,362,680. The average penalty was \$641,590 and the maximum penalty was \$8,242,500.

All enforcement orders, including penalties and operator entities, are publicly posted.

[Read the 2025 Enforcement Report:](#)



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Cumulative Impacts and Required Best Management Practices

Best Management Practices (BMPs) are operational and administrative practices that are an effective, practicable means of preventing or reducing pollution and other impacts. BMPs are enforceable as a permit condition, even when they are not specifically required by rule. Prior to 2019, an operator's use of BMPs was voluntary and generally not rule-based. A typical Form 2A in 2016 would include only three or four BMPs.

Pursuant to the rules adopted to implement SB19-181, more stringent BMPs from mandatory operator consultations with the Colorado Department of Public Health and the Environment (CDPHE) were developed to ensure that applications, upon review and approval, were protective. Notably, the Commission expanded upon the SB19-181 rules when it unanimously adopted the Cumulative Impacts and Enhanced Systems and Practices Rules, as directed by SB24-229 and HB24-1346. The rules created new rule-based BMPs and 'enhanced systems and practice' (ESP) requirements that further strengthened ECMC's protective regulatory framework and added new protections for disproportionately impacted communities. **Today's Form 2A includes 30-40 BMPs, which is a tenfold increase.**

Cumulative impacts, as defined by HB 24-1346, are the effects on public health and the environment, including the impacts to air quality, water quality, climate, noise, odor, wildlife, and biological resources, caused by the incremental impacts that a proposed new or amended operation regulated by the Commission pursuant to Article 60 would have when added to the impacts from other past, present, and reasonably foreseeable future development of any type on the impact area or on a disproportionately impacted community.

[Read the 2024 Cumulative Impacts Report:](#)



BMPs and Rule-based Requirements for Statewide Operations This table provides a summary of technical rules. The complete rules are posted online at ecmc.state.co.us/reg.html#/rules .	Required?	
	Pre-2019	Today
Noise mitigation	✓	✓
Light mitigation	✓	✓
Odor and dust mitigation	✓	✓
Stormwater and erosion control	✓	✓
Green completions (emission control systems in use on equipment during hydraulic fracturing)	✓	✓
Leak detection plan with permit application	✓	✓
Consultation with local governments, Colorado Parks and Wildlife (CPW), CDPHE	✓	✓
Per- and polyfluoroalkyl substances (PFAS) prohibition		✓
Venting and Flaring prohibition		✓
Demonstration of compliance with Greenhouse Gas Intensity Target - pursuant to Air Quality Control Commission (AQCC) Reg 7		✓
Cumulative Impacts Analysis		✓
Alternative Location Analysis		✓
Pre-application and post-completeness technical consultation		✓
Location permits approved by Commission vote at a public hearing, with multiple opportunities for public comment		✓
Compensatory mitigation for operations in CPW high priority habitat		✓
Flowline registration, description, and geographic information system (GIS) shapefile data		✓



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Requirements for Oil and Gas Development within 2,000 feet of RBUs in DI Communities This table provides a summary of technical rules. The complete rules are posted online at ecmc.state.co.us/reg.html#/rules .	Required?	
	Pre-2019	Today
Environmental Justice (EJ) Community Liaisons - dedicated resources for residents		✓
Community Outreach Plan - required for every location		✓
Expanded radius for public notice		✓
Expanded public comment period		✓
Expanded opportunities for community/public engagement		✓
Language translation and interpretive services		✓
EnviroScreen scoring and analysis		✓
Pre-application and post-completeness community meeting		✓
Information regarding outreach to residents, resolution of their concerns, summaries of communications, translation/interpretive services requested, etc		✓
Information regarding attempts to obtain informed consent		✓
Information regarding attempts to execute a community benefit agreement or other direct beneficial impacts		✓

Ozone Non-attainment Areas

Addressing long-standing environmental and health impacts, particularly in DI communities, requires an accurate and realistic understanding of the effects from combined exposures to chemicals and other stressors such as noise, odor and socioeconomic disadvantages. It also requires stakeholders, particularly in DI communities, to have access to information and decision-making opportunities. ECMC adopted new requirements for oil and gas operations within the ozone non-attainment area to avoid, minimize, and mitigate adverse impacts and provide additional protections for residents. These new requirements include additional informational requirements for permit applications, permitting process improvements that expand opportunity for public engagement and input, and BMPs specific to emissions reductions and public health protections.

Seasonal (or Year-Round) Requirements for Oil and Gas Development Proposals for Locations in Ozone Non-Attainment Area This table provides a summary of technical rules. The complete rules are posted online at ecmc.state.co.us/reg.html#/rules .	Required?		
	Pre-2019	Today, for locations in ozone non-attainment area	Today, for locations in DI communities within ozone non-attainment area
Use of grid power or onsite solar power for all permanent powered production equipment onsite (excludes external combustion sources)		✓ where practicable	✓ where practicable
Use of grid power or non-fossil fuel generated power for heavy equipment such as drill rigs and turbine engines over 50 hp		✓ where practicable	✓ where practicable
No permanent produced water storage tanks		✓ where practicable	✓ where practicable
Demonstration of Compliance with NOx Intensity Target		✓	✓
No hydrocarbon liquids storage in permanent storage tanks on site		✓ where practicable	✓
Adequate and committed pipeline take-away capacity for all produced oil		✓ where practicable	✓
Use of temporary surface lines (e.g., lay-flat hose) to transport water used for hydraulic fracturing		✓ where practicable	✓



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Community Liaisons and Community Engagement

Based on direction from Senate Bill 24-229 and the Commission's adoption in 2024 of the Cumulative Impacts and Enhanced Systems and Practices Rules, ECMC welcomed two new community liaisons in 2025: Steven Arauza of Rifle, CO, and Yesica Chavez of Denver, CO (pictured below.) The cumulative impacts rules require ECMC and operators to proactively provide additional opportunities for communities, especially disproportionately impacted (DI) communities, to engage in energy regulations and permitting processes.

Colorado's statutory definition of the DI communities includes low-income communities, communities of color, housing cost-burdened communities, linguistically isolated communities, communities with environmental and socioeconomic impacts, tribal lands, mobile home communities and historically marginalized communities. The state identifies DI communities at the census block group scale, which is the smallest geographic scale of data available from the U.S. Census Bureau, and typically contains 600 to 3,000 individuals.

As community liaisons rooted in environmental justice, Arauza and Chavez are dedicated resources for DI communities throughout the Western Slope (Arauza) and the Front Range (Chavez). They work to ensure that DI communities have equitable access to information and meaningful opportunities to voice their concerns related to Oil and Gas Development Plans (OGDPs) and deep geothermal operations. The liaisons oversee operator compliance with new community engagement rules, which require operators to host pre-application community meetings, consult on the proposed community outreach plan and host a post-completeness community meeting prior to the application being heard by the Commission at a public hearing. These requirements depend on distance triggers for proposed locations that fall within certain distances to residences, both inside and outside DI communities. In 2025, the liaisons were invited to 24 pre-application community meetings – 20 in the Front Range and four on the Western Slope. Since the implementation of the Cumulative Impacts and Enhanced Systems and Practices Rules, three OGDP applications have included Community Outreach Plans that have been reviewed by the Environmental Justice Community Liaisons based on distance triggers.

ECMC wrote its first-ever community engagement plan that outlines how ECMC will expand engagement initiatives, with consultation and input from more than 15 environmental nonprofits and community-based organizations. The liaisons, as part of ECMC's new Community Relations Unit, have been attending and hosting community meetings, connecting community members with additional resources and information about Commission events and complaint processes. **In 2025, the liaisons attended 32 events, engaged with at least 1,500 people and hosted more than 15 community engagement events or presentations, including two in Spanish to Hispanic communities.** Counties where events took place included Adams, Weld, Arapahoe, Larimer, Garfield, San Miguel and La Plata.



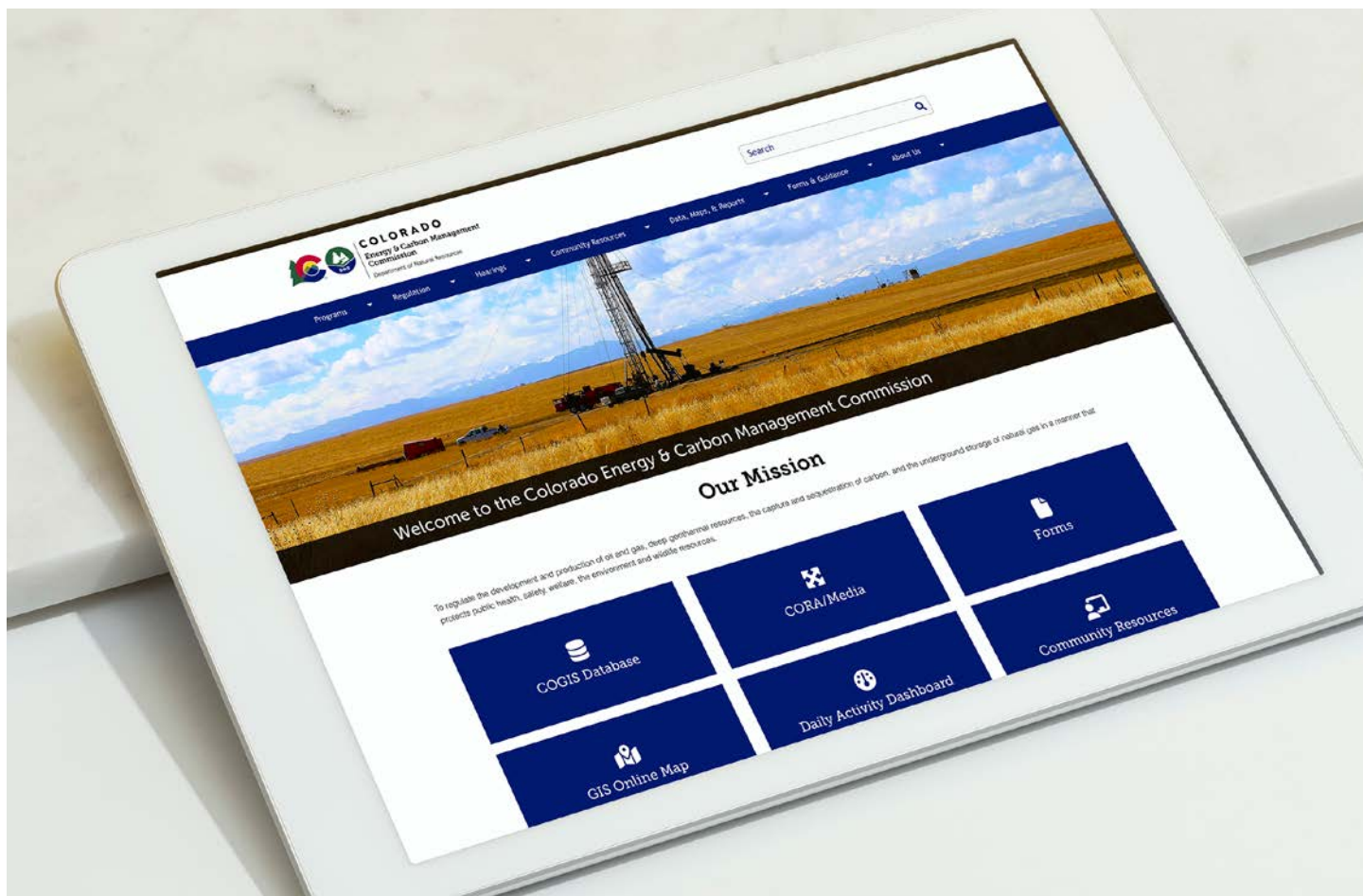
Photos above: ECMC employees at community events. Pictured bottom (left to right): ECMC Community Relations team, Steven Arauza, Megan Adamczyk, Yesica Chavez, Kristin Kemp.



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The Community Relations Unit also made the information accessible for the communities by consistently sharing information on the ECMC social media channels – Facebook, LinkedIn and YouTube. ECMC launched a new website in 2025 with information specific to communities in easy-to-understand, accessible language. The website features pages for community resources, designed with community needs in mind and featuring easy-to-find information and easy-to-understand language. The website also provides contacts that communities can reach out to and connect with ECMC if they have any questions.



Another big milestone in 2025 was the launch of the *Carbon Copy* monthly newsletter. *Carbon Copy* aims to make ECMC's complex policy and scientific work more accessible and understandable.

The newsletter is designed to increase transparency, lower the barrier to information and proactively inform audiences about ECMC's publicly available resources, especially the data that the agency collects from operators.

Sign up to receive *Carbon Copy*:



Oil and Gas Permitting

Prior to SB19-181, operators only submitted one permitting form (called a Form 2A Oil and Gas Location Assessment) to seek approval to construct an oil and gas location, such as a well pad. Individual well permits (Form 2s) were also required for each well on the pad, but were approved concurrently with the Form 2A surface permit. Under the old mission of ‘fostering’ oil and gas development, ECMC staff could review and approve permits administratively without a public hearing or Commission input.

The transformatively stringent and protective new regulations now require operators to submit six times the amount of information on the Form 2A surface location permit, as well as the new Form 2B, Cumulative Impacts Data Identification, both of which are reviewed and adjudicated by the Commission through a public hearing process.

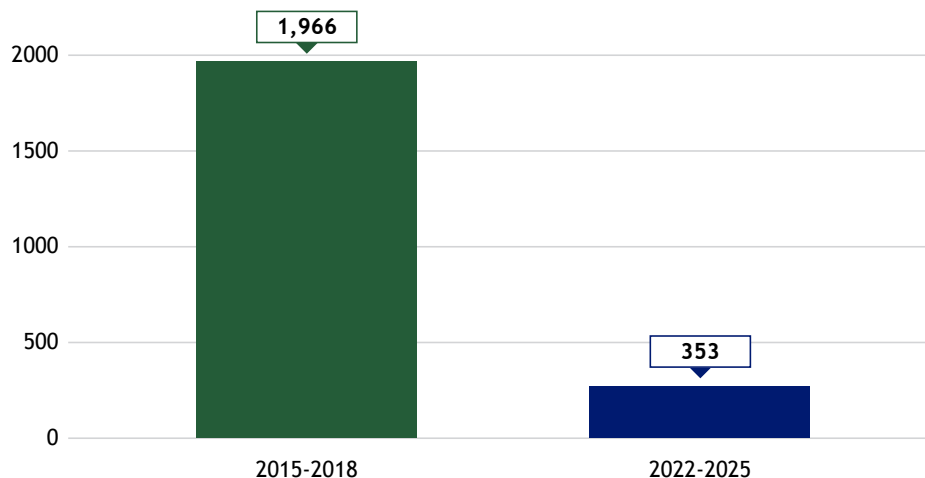
Additionally, the new rules reflect the strongest financial assurance requirements in the country. Prior to the new rules, operators submitted a fixed bonding fee per well. Now, ECMC requires individualized financial assurance based upon each operator’s site-specific operations. Financial assurance (i.e. bonding) provides the resources to correct violations or complete remediation projects. It protects taxpayers from covering costs that should be borne by the oil and gas industry.

These new rules put in place the nation’s most environmentally protective permitting approval parameters, which have caused a paradigm shift in the number of applications operators submit and the rate of approvals granted by the Commission.

In addition to implementing these new rules, ECMC is also focused on process improvements throughout the permitting process. In 2024, ECMC engaged with an external consultant to review the permitting process and identify potential improvements to increase the predictability and transparency of the permitting process. This has resulted in numerous improvements, including increased communication between the various ECMC units, the creation or revision of over 45 operator guidance documents, corresponding internal standard operating procedures (SOPs) to help ensure consistent reviews between staff members, and a formalized training curriculum outline for the planning workgroup. These ongoing efforts will continue to be revised as needed, but have hopefully provided a more consistent and clear permitting review process and expectation to both operators and other external stakeholders.

An operator must successfully obtain permit approvals to operate in Colorado. An Oil and Gas Development Plan (OGDP) via ECMC’s Form 2A OGDP can encompass a single well or up to several dozen wells or multiple locations. The Application for Permit to Drill (Form 2) is required for each individual well. All forms and permit requirements are posted online at ecmc.colorado.gov/forms-operator-guidance.

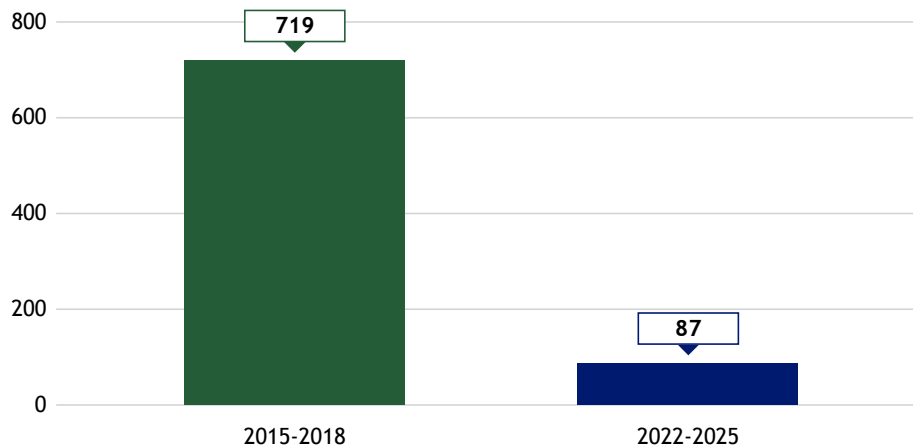
Approved Oil and Gas Surface Locations (per Form 2A)
82% reduction



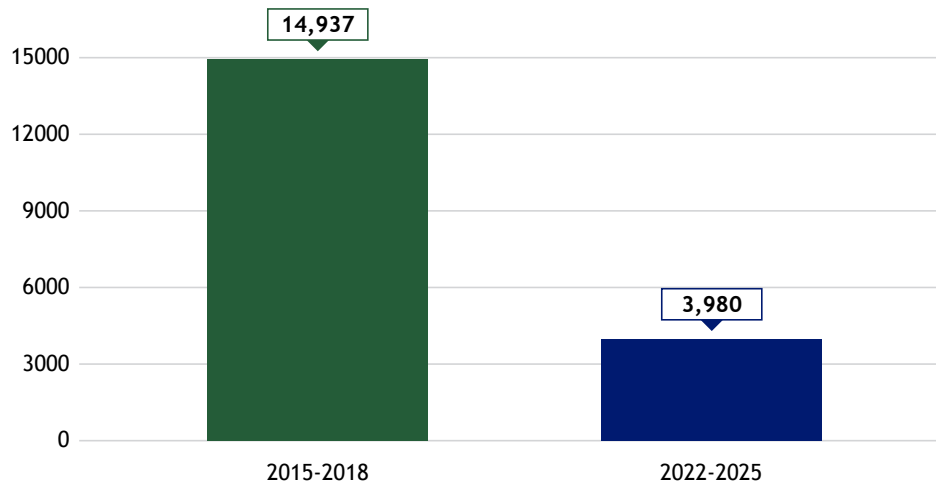
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**Oil and Gas Surface Locations Approved within 2,000 ft
of a Residential Building Unit (RBU) (per Form 2A)**
88% reduction



Well Permits Approved (per Form 2)
73% reduction



2025 Public Hearings

- Hosted 56 public hearings (all virtual), attended by 13,731 people.
- Hosted three Rule 511 Local Public Hearings, which were attended by 621 people.

Rule 511 Local Public Hearings are non-adjudicative hearings with the sole purpose of providing community members the opportunity to share feedback with Commissioners directly. Rule 511 hearings occur in person and take place within the local community where the development is being proposed.

Setbacks

Setbacks are the minimum required distance set by law or rule between oil and natural gas development and homes, schools and other buildings. The 2016-2018 rules contained only a hard setback requiring wells to be no less than 200 feet from buildings. ECMC strongly encouraged operators to site wells farther away from homes, which resulted in the average distance between homes and wells being over 1,700 feet. Nonetheless, well-siting provisions were tempered by caveats based upon the operator's assessment of whether they were "technically feasible and economically practicable."

SB19-181 removed those technical and financial caveats and enabled the Commission to require more stringent setbacks. The 200-foot minimum setback is still in place. Additionally, a new 2,000-foot setback is required for single- and high-occupancy homes, schools and child care centers, and is measured from the edge of the pad rather than from the wellhead.

This 2,000-foot setback is always required for schools and child care centers, and would require the Commission to grant a variance for any exception. To date, no such variance has been requested or granted. The 2,000-foot setback to homes does allow for certain exceptions, which the Commission may grant based on any one of four off-ramps:

1. The homeowner providing informed consent;
2. Prior approval of the location within a Commission-approved Comprehensive Area Plan (CAP);
3. All wells, tanks, separators, and compressors sited on the pad remain more than 2,000 feet from the home; or
4. A clear demonstration of substantial equivalence that includes ongoing and thoughtful community outreach and engagement, resolution of the concerns of nearby neighbors, expanded notice and public engagement opportunities, an executed community benefit agreement and a commitment to "above and beyond" BMPs. Best management practices may include limited occupation of the pad with heavy equipment, voluntary operational timing limitations, or other beneficial impacts that would offset certain adverse impacts that could not be avoided or minimized.

The resulting average distance from a new well pad to a home is over 2,000 feet, which demonstrates that this new process is effective in ensuring residents have a higher level of protection than ever before.

The substantial equivalence off-ramp provides operators an opportunity to seek approval for a location that warrants significant additional review, particularly when the location is within 2,000 feet of a DI resident. It requires an extraordinary level of thoughtful planning, frequent and meaningful engagement and compromise with nearby residents, relevant and proximate local governments, and additional information for the Commission to consider. The burden is on the operator to demonstrate that every possible avenue for compromise and collaboration with local residents has been thoroughly undertaken and documented and that no alternative location is available that might result in less adverse impacts.

What are disproportionately impacted communities?

Some communities in Colorado have more than their fair share of environmental exposure, which can result in higher levels of environmental health harm. The disproportionately impacted community definition created by the state legislature in 2021 identifies areas in Colorado that may experience higher environmental and health burdens, like pollution and climate change. In 2023, the state updated the definition of a disproportionately impacted community based on recommendations from the Environmental Justice Action Task Force in Section 24-4-109 of the Colorado Revised Statutes. The last update was in November 2024. ECMC follows the state's definition.

What is in the definition? Colorado defines disproportionately impacted communities at the census block group scale. The census block group scale is the smallest geographic scale of data available from the U.S. Census Bureau, typically containing 600 to 3,000 people. Disproportionately impacted communities include:

- Low-income communities: Census block groups in which more than 40% of households are at or below 200% of the federal poverty line.
- Communities of color: Census block groups in which more than 40% of the population identify as anything other than non-Hispanic white.
- Housing cost-burdened communities: Census block groups in which more than 50% of households spend more than 30% of their income on housing costs like rent or mortgage payments.
- Linguistically isolated communities: Census block groups in which more than 20% of the population lives in households where all adults speak a language other than English or do not speak English well.
- Communities with environmental and socioeconomic impacts: Communities in which multiple factors, including socioeconomic stressors, vulnerable populations, disproportionate environmental burdens, vulnerability to environmental degradation or climate change, and lack of public participation, may cumulatively affect public health and the environment and may contribute to persistent environmental health disparities. Cumulatively impacted communities can be presumptively identified in one of two ways:
 - They are in a census block group with a Colorado EnviroScreen score above the 80th percentile.
 - They are in a census tract that the federal Council on Environmental Quality's Climate and Economic Justice Screening Tool identifies as disadvantaged.
- Tribal lands: The Southern Ute and Ute Mountain Ute reservations.
- Mobile home communities: Areas that meet the Department of Local Affairs' definition of a mobile home park.
- Historically marginalized communities: Communities with a history of environmental racism created through redlining or anti-Black, anti-Hispanic, anti-immigrant or anti-Indigenous laws, policies or practices that continue to experience present-day environmental health disparities.



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Orphan and Marginal Wells

There are approximately 45,800 active wells in Colorado. Each well or well pad location must be reclaimed in accordance with ECMC’s stringent environmental and safety standards. When an oil and gas location is reclaimed to ECMC’s standard, the land is restored to the condition it was before oil and gas development occurred, thus concluding ECMC’s regulatory process. Plugging a well is the process of permanently sealing a well to prevent the release of hydrocarbons and other fluids into the environment. The vast majority of wells are or will be plugged by operators because state law requires that operators plug wells at the end of the well’s productive life. (See [page 4](#) for more information about financial assurance standards.)

As of June 2025, there were 948 orphaned wells. Orphaned wells are unplugged oil and gas wells that are inactive and have no owner or operator who can be found or is willing/able to plug them. Since its inception in 1990, the Orphan Well Program (OWP) has plugged more than 800 wells, nearly 40% of which have been plugged in the past four years.

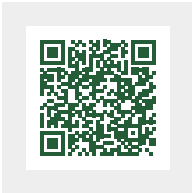
Additionally, ECMC launched a voluntary program for operators to plug their marginal wells, which are low-producing wells that are at risk of becoming orphaned. ECMC has two funding sources for operators to volunteer marginal wells for plugging reimbursement – the Methane Emissions Reduction Program (MERP) and the Enterprise Marginal Well Plugging (EMWP) – both of which will help reduce methane emissions. In 2025, ECMC announced that 30 operators will receive reimbursement grants to plug 142 marginal wells, per a new competitive grant made possible by operator fees and federal funds from the 2022 U.S. Inflation Reduction Act. An operator-paid fee for the marginal well program is currently set at \$115 per well and generates approximately \$5 million per year.

No dollars were allocated to the operator until the operator satisfied its plugging and abandonment, remediation and reclamation obligations and reporting requirements in accordance with ECMC’s rules and the operator’s reimbursement agreement. Each agreement through the grant process is estimated before the plugging operation. Based on applications received in 2025, the estimated maximum reimbursable amount for this grant cycle is \$13,970,000 for the 30 operators. ECMC launched the new Marginal Well Plugging Program website in 2025, which includes an [interactive dashboard](#) that provides updates on monthly reimbursement and plugging status.

Read the OWP Annual Report:



Read more about the marginal well plugging program:



Field crews plug orphan wells.

Number of Active Wells	
December 31, 2018	53,384
December 31, 2025	45,514

Expanded Regulatory Industries

The state legislature significantly expanded ECMC's regulatory authority since the passage of SB19-181. ECMC now regulates not only oil and gas development, but also emerging energy sectors of deep geothermal and carbon storage. The expansion of ECMC's regulatory authority followed a multi-year process begun by SB19-181 to transform the Commission's mission from fostering oil and gas development to regulating it, along with deep geothermal and carbon storage, in a manner that protects public health, safety, welfare, the environment and wildlife resources.

Carbon Storage (Class VI wells)

Wells regulated through EPA's Underground Injection Control (UIC) program are classified based on the type of fluid injected and the depth of the injection zone relative to the deepest Underground Source of Drinking Water (USDW). There are six "classes" of injection wells, named Class I through Class VI.

In 2023, Senate Bills 23-285 and 23-016 expanded the regulatory authority of ECMC to include Class VI Underground Injection Control (UIC) wells. These wells are used exclusively for geologic carbon sequestration. The new laws enabled ECMC to pursue regulatory primacy for Class VI wells from the U.S. Environmental Protection Agency (EPA). ECMC adopted Class VI rules in late 2024 that included EPA requirements as well as additional Colorado-specific requirements for Class VI operators. ECMC subsequently submitted Colorado's Class VI primacy application to the EPA in the spring of 2025 and expects a final decision in early 2026. Once approved, Colorado will have the authority to permit and regulate Class VI wells directly. These developments position Colorado as a national leader in carbon storage regulation. They also ensure projects are carried out in a manner that protects Colorado's people, land, water and wildlife.

The new 1400-Series Rules, in effect upon primacy, also established comprehensive permitting, siting and community engagement requirements, including financial assurance, cumulative impact analysis, surface owner consent, and protections for DI communities.

In 2024, House Bill 24-1346 further expanded ECMC's jurisdiction by clarifying its authority over geologic storage operations and confirming that geologic storage resources (the underground pore space used for carbon sequestration) are owned by surface owners. The law also established a mechanism for forming geologic storage units.

House Bill 25-1165 created Colorado's Geologic Storage Stewardship Enterprise, which was established in 2025 with the seating of five volunteer Board members. The Board's goal is to provide direction regarding the state's long-term stewardship of Class VI sites after the operator is released of regulatory liability upon site closure. The Board will establish an annual stewardship fee structure in early 2026, which will be paid by Class VI operators per ton of injected CO₂. This geologic stewardship enterprise cash fund will fund the long-term stewardship of carbon sequestration wells, and ensure the CO₂ remains sequestered underground with no impacts to groundwater or other resources.

Underground Injection for Disposal and Enhanced Recovery (Class II wells)

The Underground Injection Control (UIC) Program is a part of the Safe Drinking Water Act (SDWA) administered by the EPA to protect public health by regulating the nation's public drinking water supply. Colorado received primacy of Class II UIC wells in 1984. Class II wells are used to inject fluids associated with oil and natural gas exploration, development or production. Class II fluids are primarily brines (salt water) that are brought to the surface while producing oil and gas. The EPA defines injection classes and ECMC follows EPA's class definitions. Class II wells are used specifically for enhanced oil recovery through injection of water, gas, other substances or as disposal wells injecting oil and gas exploration, development and production waste. ECMC does not regulate Class II UIC wells located on tribal lands.

The 800-Series Rules encompass UIC facility and well application requirements, aquifer exemptions, public noticing, injection fluid sampling and analyses requirements, authorization of sources of Class II waste for disposal, simultaneous injection, commercial disposal and enhanced recovery projects. UIC wells are permitted through ECMC's oil and gas permitting process and will not be authorized in areas where they would inject into a formation separated from any Underground Sources of Drinking Water (USDWs) by a confining layer with known open faults or fractures that would allow flow between the injection zone(s) and USDWs within the area of review.

Solar, Wind & Battery Storage

With the passage of Senate Bill 24-212 in July of 2024, ECMC now offers technical support to local and tribal governments on the siting and development of solar, wind and battery energy storage system (BESS) projects. That technical assistance concerns two basic areas:

- The development of local codes governing wind, solar, energy storage and energy transmission projects (renewable energy projects); or
- The review of renewable energy projects for which a local government or tribal government receives an application for land use approval.

While ECMC seeks to provide information, resources and facilitate projects, ECMC does not permit or regulate solar, wind and battery storage projects.

Since the passage of Senate Bill 24-212, ECMC has hired a Renewable Energy Program Coordinator, developed an Outreach and Engagement Plan for renewable projects, and created a webpage and a technical assistance request form. The direct outreach and engagement featured attendance or presentations at key public meetings, workshops and conferences, including the Energy and Environment Symposium and the Colorado Counties, Inc. annual conference. In 2025, ECMC received 18 requests for consultative appointments, including technical assistance on projects and review of permit applications.

Geothermal

Geothermal energy provides an alternative, clean and renewable energy source that decreases our reliance on fossil fuels. Deep geothermal wells tap into the Earth's heat at great depths for power generation or heating. It is an emerging industry in Colorado that can utilize hot water in deep subsurface formations to produce electricity or for direct heating uses. Colorado has several areas with higher-than-normal temperatures in the subsurface. These resources are mostly undeveloped and have vast future potential to reduce greenhouse gas emissions and provide renewable energy solutions.

The passage of Senate Bill 23-285 gave ECMC statutory authority to regulate the exploration for and use of allocated geothermal resources in the State of Colorado. This leverages ECMC's well-developed history of protective regulation of wellbore construction, surface impacts, groundwater protection and the protection of subsurface correlative property rights. Our 1300-Series Deep Geothermal Rules, adopted in 2024, are comprehensive and encompass siting, drilling, operations, safety, unitization, subsurface injection, financial assurance and more.

ECMC has not yet received its first formal geothermal permit application, but has engaged in pre-application discussions with multiple potential geothermal operators. We anticipate an increase in interest and permit applications in 2026 as we further expand our deep geothermal program and prioritize community and industry outreach.

Underground Natural Gas Storage

Underground Natural Gas Storage (UNGS) involves the temporary storage of natural gas in a subsurface formation to allow for dispatchable gas to generate power when needed.

UNGS is crucial for balancing seasonal demand —operators can inject gas during low-use months (spring/fall) and withdraw it during peak heating/cooling seasons (winter/summer). It provides energy security, prevents shortages, supports grid resilience, balances supply with demand fluctuations and can facilitate renewable energy integration by storing gas for backup power when renewables aren't producing.

SB23-285 expanded the regulatory authority of ECMC to include UNGS. ECMC plans to commence a UNGS Rulemaking in the future.



ECMC staff at a 2025 all-staff meeting.

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