



EQUITABLE
ORIGIN
CERTIFIED



CHESAPEAKE
ENERGY

Site Overview

Certificate Issuer:	Equitable Origin, Inc.
Certificate Number:	EO100-20062022-US
Operator:	Chesapeake Energy Corporation
Certifiable Unit Name:	<i>Chesapeake Energy Corporation, Marcellus</i>
Certification Standard:	EO100™ Standard for Responsible Energy Development (2017) and the EO100™ Technical Supplement: Onshore Natural Gas and Light Oil Production (2022)
Location of Certified Unit:	Bradford, Sullivan, Susquehanna, Wyoming, and Lycoming Counties, Pennsylvania, USA
Area:	650,000 net acres
Production Volume:	Approximately 4.4 bcf/d
Number of Employees:	Approximately 1,300
Production Phase:	Active production
Certification Date:	20 June 2022
Re-Verification Date:	20 June 2024
Expiration Date:	19 June 2025
Assessment Body:	Responsible Energy Solutions, LLC

ABOUT THE EO SUMMARY REPORT

The purpose of this report is to document the EO100™ Certification and annual re-verification assessments conducted for Chesapeake Energy Corporation's (CHK) natural gas operations in Bradford, Sullivan, Susquehanna, Wyoming, and Lycoming Counties in Northeast Pennsylvania. The assessment scope included CHK's **Chesapeake Energy Corporation, Marcellus** which were treated as the Certified Unit.

The EO100™ Standard for Responsible Energy Development is a set of rigorous performance standards for energy development projects. Developed through a three-year, multi-stakeholder engagement process, the EO100™ Standard is the product of extensive consultation with the energy industry, international NGOs, Indigenous organizations, financial institutions, government, and communities affected by energy projects. The Standard establishes metrics and performance targets to objectively and independently evaluate the environmental, social and governance (ESG) impacts of energy development projects. The EO100™ Standard includes a technical supplement for natural gas and light oil production.

The EO100™ Standard and associated Supplements encompass the following Principles:

1. Corporate Governance, Transparency & Ethics
2. Human Rights, Social Impact & Community Development
3. Indigenous People's Rights
4. Fair Labor & Working Conditions
5. Climate Change, Biodiversity & Environment

The EO100™ Standard incorporates and references other leading international ESG standards, initiatives and reporting frameworks, including: international human rights standards and conventions (Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights), IFC Performance Standards, Global Reporting Initiative, ISO 26000, AA1000 Assurance Standard, ISO 14001, ISO 45001, Oil and Gas Methane Partnership, Taskforce on Climate Related Financial Disclosure, and the Extractives Industries Transparency Initiative. Best practices have been converted into specific and auditable indicators based on the experiences of and feedback from companies and stakeholders in the energy sector. Standards are reviewed and updated on a 5-7 year cycle.

The EO100™ Standard incorporates a scoring system based on three levels of Performance Targets (PTs).

- PT1 indicates that a site's performance meets industry best practices;
- PT2 indicates that a site's performance exceeds industry best practices; and
- PT3 indicates that a site's performance leads industry best practices.



Producers must satisfy all provisions at the level of PT1 to achieve certification under the Standard. Additional points are awarded for achieving PT2s and PT3s, which indicate that the producer goes beyond industry best practices or demonstrates leadership and innovation.

Established in 2009, Equitable Origin is a non-profit 501(c)3 charity based in the US that partners with business, communities and government to incent and reward more transparent, equitable, and sustainable development of energy resources through standards and certification. Our mission is to protect people and the environment by ensuring that energy development is conducted to the highest social and environmental standards.

Read more about our Standards here:

<https://energystandards.org/responsible-energy-development/>

Site Profile

Chesapeake Energy Corporation (CHK) is a natural gas focused energy company with current operations in Pennsylvania, Louisiana, and Texas in the United States. In June 2022, CHK first achieved certification of its *Chesapeake Energy Corporation, Marcellus*, in Pennsylvania under the EO100™ Standard for Responsible Energy Development (2017) and the EO100™ Standard Addendum for Shale Oil and Gas Operations (2015). The Asset remains currently certified under the present EO100™ Standard for Responsible Energy Development (2017) and the EO100™ Technical Supplement: Onshore Natural Gas and Light Oil Production (2022).

The reverification for 2024 is applied across assets previously certified and designated as *Chesapeake Marcellus Acquired (CHK MA)* and *CHK Appalachia*. CHK incorporated the operation of these assets, which includes those acquired from Chief Oil and Gas LLC, Chief Exploration and Development LLC, into one operating unit identified as *Chesapeake Energy Corporation, Marcellus* for the 2023 Re-Verification assessment.



Through CHK's subsidiary, Chesapeake Appalachia, LLC, the company has focused its Marcellus operations across 650,000 net acres under lease in Northeast Pennsylvania. The company operates approximately 942 wells in the area of review, located on 429 well pads with an approximate natural gas annual production volume of 4.4 bcf/d.



The Appalachian Basin is part of the Marcellus Shale stretching from Western New York State south through Pennsylvania into West Virginia and including part of Southeastern Ohio. The portion of the Marcellus Shale from which CHK produces natural gas is primarily a “dry” gas formation producing gas with little or no natural gas liquids (NGLs).

Stakeholders and Communities

CHK has identified ten stakeholder groups in its Corporate Responsibility report that include:

- Investors
- Government
- Partners and Suppliers
- Industry Peers
- Academia
- Communities
- Employees
- Media
- Special Interest Groups
- Royalty Owner

Chesapeake engages with its stakeholders based on regulatory requirements, stakeholder interests and needs of both the stakeholder and the company.

Principle 3, Indigenous Peoples’ Rights, was evaluated by the Assessor as not applicable for this assessment. The closest Indigenous tribal territory is the Onondaga Territory, a 7,300-acre tract in New York State, 83 miles north of the Pennsylvania border and approximately 102 miles from the geographic center of the Chesapeake development area. Natural water flow in the region between central New York State and Pennsylvania is from the north to the south. In the immediate area of the Onondaga Territory, maps from the U.S. Geologic Survey (USGS) indicate the land elevation drops to the north toward Lake Ontario and rises to the south towards Pennsylvania. The prevailing winds in the northeastern United States are from west to east with New York states wind patterns predominantly following that pattern, minimizing the potential for significant impacts from oil and gas development activity in Pennsylvania on the Onondaga Territory. CHK operations potential for impact on existing Indigenous territories were determined by the Assessor to remain minimal.

Additional details of the findings are detailed further within this report.

Document Review and Stakeholder Interviews

CHK engaged Equitable Origin-approved independent assessors, Responsible Energy Solutions, LLC, to conduct its reverification assessment in April 2024.

To assess conformance of the Certifiable Unit to the associated performance obligations, the Assessment Team conducted verification activities using desk research and site investigation, focused on assessing improvements that were to be made in conformance with CHK's Continuous Improvement Plan that was a condition of initial certification. Additionally, selected performance targets were checked to ensure no regression in performance occurred. Where warranted, areas of sector outperformance (Performance Target at Level 2), and sector leadership (Performance Target at Level 3) were verified.

Specific verification activities undertaken as part of this assessment included an on-site visit, review of CHK's documentation and reports (internal and external), interviews with relevant staff and internal and external stakeholders, discussion with key personnel and site operators, and investigations for environmental, health and safety and community impact observations.

As part of this work, Responsible Energy Solutions process included document review and discussion with CHK personnel, interviews, field assessment and report preparation conducted over an approximate six-week period. The Assessors spent three days performing field assessments, reviewed 53 documents, and conducted 12 interviews with internal and external stakeholders. Four additional external stakeholders were contacted for interviews but did not respond to multiple contact attempts by Responsible Energy Solutions.

All supporting assessment documents are confidential.

Certification Results

Based on the information obtained, Responsible Energy Solutions finds that CHK's *Chesapeake Energy Corporation, Marcellus* have met the requirements for recertification under the EO100™ Standard for Responsible Energy Development (2017) and the EO100™ Technical Supplement for Onshore Natural Gas and Light Oil Production (2022).

This reverification assessment concludes that CHK has succeeded in meeting or partially meeting all the applicable Level 1 Performance Targets (See Table 1). It finds that the company continues to perform in accordance with the Standard and has continued to maintain its high across Performance Targets at Levels 1, 2 and 3 in Principles 1, 2, and 4, and showed continued improvement in performance in Principle 5. The reverification assessment identifies that scores have continuously improved year to year since the initial assessment in 2022.

The Assessors find that, under Principle 5, CHK implemented continuous improvements that included Performance Targets for Environmental Management & Mitigation; Emergency Preparedness and Response Planning; Energy Efficiency; Greenhouse Gas Emissions; Biodiversity & Ecology; Water; and Land. Notable progress has been made year to year in emissions management including testing of methane detection technology as well as equipment that will lead to emissions reduction through improved operations.

CHK has been provided with a list of the gaps identified during this re-verification for incorporation into the Continuous Improvement planning process initiated following the first year's certification assessment.

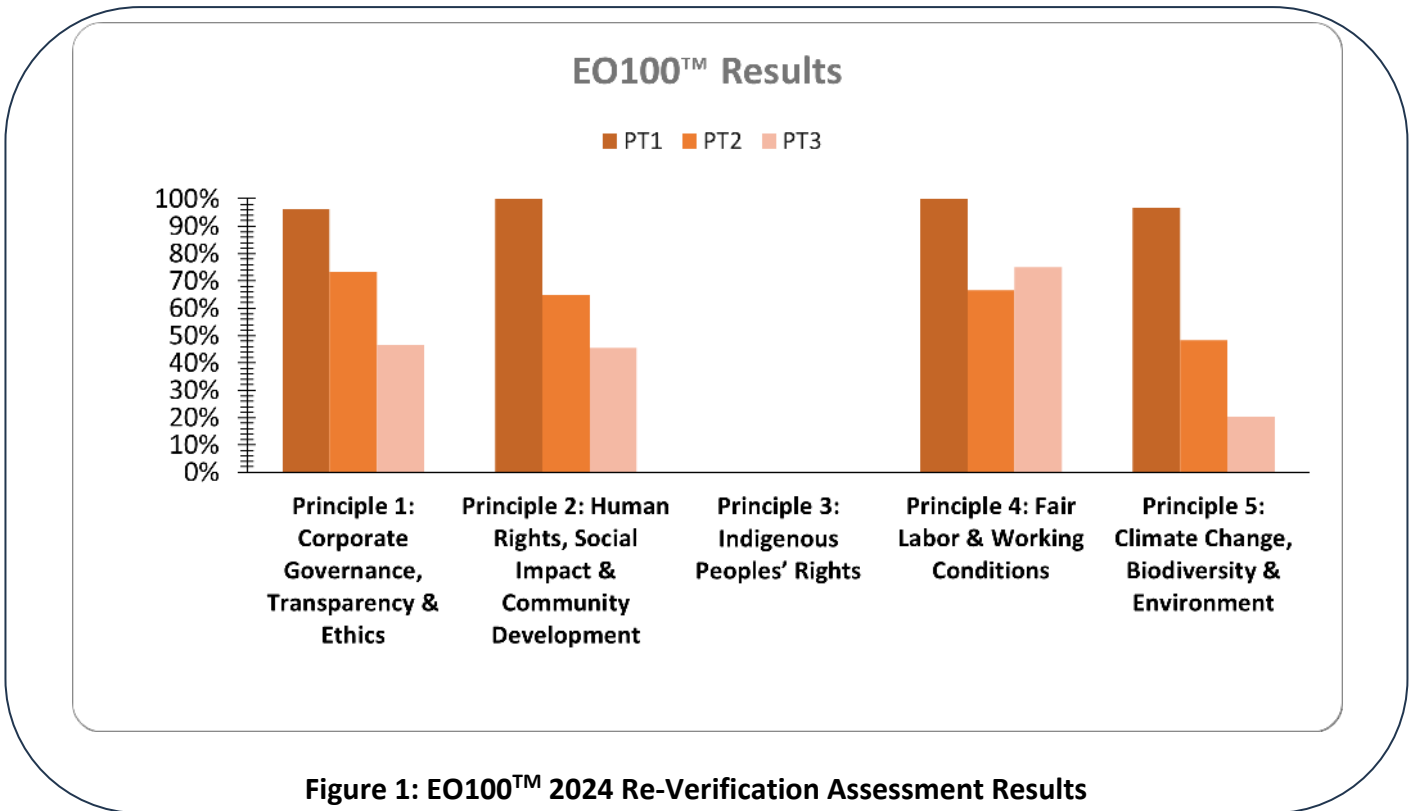
Table 1 below shows the results summarized by Principle for each Performance Target level.

Table 1: Summary Results by Principle

A-

Letter
Grade

Principle	2024 Re-Verification Assessment
1: Corporate Governance, Transparency & Ethics	96%
2: Human Rights, Social Impact & Community Development	100%
3: Indigenous Peoples’ Right	-
4: Fair Labor & Working Conditions	100%
5: Climate Change, Biodiversity & Environment	97%



EO100™ Certificate



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Assessment Dates: April 2024
Assessor: Responsible Energy Solutions, LLC



Jason Switzer
CEO, Equitable Origin

Contact Information:

Chesapeake Energy Corporation: <http://www.chk.com>

If organizations or individuals have concerns, complaints, or comments about the operator's EO100™ Certification, they should first contact the Certified Operator directly: 877-245-1427.

Equitable Origin: contact@equitableorigin.org

For more information on Equitable Origin's Certification System Comments, Complaints and Appeals processes, please visit our website: www.energystandards.org.