



## **ABOUT SWN**

Southwestern Energy Company (NYSE: SWN) is a major U.S. natural gas producer focused on responsibly developing America's abundant supply of natural gas.

For nearly 90 years, SWN has been deeply committed to providing the energy that helps power our country and fuel economic development and job growth. We are headquartered in Houston, with operations in Pennsylvania, West Virginia and Arkansas. Our Midstream Services transports and markets our own natural gas as well as third-party natural gas.

## MESSAGE FROM OUR CEO

I am proud to lead a company with such a strong commitment to our people, the environment and the communities where we work and live.

This commitment is part of our strategy to deliver long-term value for our shareholders, based upon technical and operational excellence, a strict-returns-based financial discipline, competitive margins and top-quartile performance.

The foundation underpinning our strategy is a combination of our Formula and our culture of valuing all people, establishing a high bar for safety and protecting the environment. This year's corporate responsibility report demonstrates clearly how solid this foundation really is.

Our commitment to safety is reflected in our ONE Team culture, in which we integrate our employees and our contractors into ONE Team with a shared culture of openness, support, challenge and continuous improvement – working together to share resources and lessons learned to make sure everyone returns home safely every day. In 2017, this culture resulted in a record-low Total Recordable Injury Rate for employees and contractors.

We are constantly on the forefront of developing and embracing new technologies to reduce emissions and other operational impacts throughout the hydrocarbon value chain, directly aligning with our strategy. We demonstrate this by certain key achievements reflected in this year's report:

- We maintained freshwater neutrality for the second consecutive year, meaning for every gallon of fresh water we use, we offset or replenished that gallon in the same operating region where it was used.
- We are an industry leader in reducing methane emissions from our operations. Our 2017 methane leak/loss rate was 0.221 percent, the fourth consecutive year we have exceeded our goal of 0.36 percent.

Further, in this year's report we expanded our disclosure scope on climate-related risk assessment and mitigation to address questions regarding potential long-term portfolio impacts under rules concerning global climate change.

I want to personally thank all of our valued employees whose time and efforts are reflected in this report. These efforts prove that our Formula, our ONE Team safety culture and our leading environmental stewardship, combined with our strategy of long-term value creation, are the foundation for our progress. As we continue to successfully execute our strategy, we remain committed to financial discipline, capital efficiency and operational excellence as we provide clean, safe, reliable and affordable energy to the world.

Bill Wy

Bill Way
President and Chief Executive Officer

## WHERE WE OPERATE



Our high-quality, large-scale assets are concentrated in the Appalachian Basin in Pennsylvania and West Virginia and the Fayetteville Shale in Arkansas.

## 897 billion

cubic feet equivalent in net gas production in 2017

14,775 billion

cubic feet equivalent in total proved reserves as of Dec. 31, 2017

\$3.2 billion

in operating revenues in 2017



## **APPROACH**

At Southwestern Energy, operating responsibly is built into our Formula. We are committed to creating Value<sup>+</sup> for our stakeholders. The + sets us apart.

Beyond generating financial gains, we are focused on creating long-term, sustainable value. That means an unwavering commitment to safeguarding the health and safety of our employees and contractors; protecting the environment where we work and live; maintaining a respectful workplace; creating positive impacts in the communities where we operate and live; and of course operating according to strong ethical and governance principles. Our long-term success is reliant not just on what we do, but how we do it.

SWN's corporate responsibility (CR) strategy follows our Formula. It focuses on doing the Right Things, creating value for shareholders and stakeholders through our efforts, and reporting on what we believe is important to our shareholders, customers and communities. Our company identifies and implements innovative solutions to unconventional hydrocarbon development to minimize the environmental and community impacts of our activities. We work extensively with governmental, nongovernmental and industry stakeholders to develop responsible and cost-effective programs.

Two key environmental goals – shown in the blue box at right – form the cornerstone of our CR strategy. Protecting the health and safety of our employees, contractors and communities is another foundational aspect of the strategy. In 2018 we put particular emphasis on building a ONE Team culture with our contractors – working together closely to ensure we are aligned on safety behaviors so we all go home safe every day.

In our communities, we cultivate ongoing dialogue with local officials, community members, businesses, nonprofit organizations, emergency responders and land/mineral owners. These dialogues help to address the needs of communities and provide stakeholders with a better understanding of our operations.

SWN's Health, Safety and Environment (HSE) team develops policies, programs and training related to employee and contractor health and safety, industrial hygiene and environmental compliance. HSE employees are embedded within each of our operating divisions – Fayetteville, Northeast Appalachia, Southwest Appalachia, Exploration, Midstream, and Drilling and Completion Operations – so that HSE issues are managed at the site level.

### **Environmental Goals**

The following two goals address the key environmental impacts of our operations:

- Maintain "freshwater neutral" status through our Energy Conserving Water initiative, or ECH<sub>2</sub>O®. We first achieved this goal in 2016 in all of our operating regions and seek to maintain it going forward.
- Keep our methane leak/loss rate below 0.36 percent of production, consistent with our position as a cofounder and member of the ONE Future coalition. In 2017, we achieved a rate of 0.221 percent.

Our full report containing additional detail on our strategy and corporate governance as well as all aspects of our corporate responsibility efforts can be found at: <a href="https://www.swncr.com">www.swncr.com</a>





## ENVIRONMENT

## Protecting natural resources is not only the right thing to do, it is good business.

SWN operates responsibly and strives to reduce emissions and improve energy efficiency. Since we view natural gas as an essential part of a lower-carbon energy future, our vision is to safely and responsibly develop our gas and liquids. We take a science-based approach to achieving this vision, actively participating

in academic and industry research to develop innovative environmental solutions. We maintain positive and productive relationships with federal and state regulatory agencies, and it is our practice to conform our operations to the spirit – not just the letter – of environmental regulations.

In July 2018, SWN entered into an agreement to provide certified environmentally friendly "SWN Gas" to a utility in the Northeast United States. SWN Gas is produced exclusively from

wells that have been certified by the Independent Energy Standards Corporation, which validates that wells conform to stringent methane emission, water management, chemical use, well integrity and other environmental and site impact measures. The SWN Gas sold under the agreement, which is purchased at a price premium, is produced in Appalachia from wells that meet these standards at the Gold-certified level.

### Air

Natural gas is a cleaner-burning fuel that plays an important role in reducing greenhouse gas (GHG) emissions and other air-quality impacts from power generation and other industrial sectors.

However, methane, the primary component of natural gas, is a GHG when emitted, and excessive methane leakage can partially offset the benefits of natural gas as a lower-carbon fossil fuel. Reducing methane emissions is part of SWN's corporate strategy of operational efficiency and environmental sustainability.

We proactively implement methane mitigation technologies – including reduced emissions completions, pneumatic device replacement, liquids unloading, and leak detection and repair (LDAR) programs – well in advance of U.S. regulatory requirements. We do not have high-bleed controllers in

our current facilities and do not use them in new facility design or installation. Our LDAR program goes beyond current regulatory requirements by including certain nonfugitive equipment sources – such as pneumatic controllers – and by addressing all potential sources, not just new sources.

SWN also voluntarily participates in scientific studies with regulatory agencies, academia and nongovernmental organizations on a variety of topics, including methane emissions. We provide access to SWN operating sites for research purposes, facilitating the collection of robust, real-world data and providing a clear picture of actual operating practices. We brought this science-based approach to the Our Nation's Energy (ONE) Future coalition, a group that SWN helped to found and that is made up of companies dedicated to reducing methane emissions across the natural gas value chain.

0.221%

methane leak/loss rate in 2017 for SWN's combined production and midstream operations, exceeding our target of 0.36 percent

99%

of our total well count and 100% of our Midstream-operated compressor stations surveyed for potential methane leaks in 2017

12.5%

reduction in GHG emissions intensity in 2017

#### Water

# SWN is committed to the responsible use of water, our planet's most vital resource.

Because water is also necessary for our operations, we developed the Energy Conserving Water initiative, or ECH<sub>3</sub>O<sup>®</sup>, a comprehensive approach to water management. The primary goal of ECH<sub>2</sub>O® is to be "freshwater" neutral." That is, for every gallon of fresh water we use, we will offset or replenish that gallon – in the same operating region where it was used through water-quality improvement projects or treatment technologies that return fresh water to the environment. We achieved freshwater neutral for each operating division in 2016, and we remained freshwater neutral in 2017.

ECH<sub>2</sub>O® has four components: reduction, innovation, conservation and

protection. In the area of reduction, for example, we work to optimize water usage, reduce reliance on freshwater sources and increase use of alternative water sources (such as recycled produced water) for hydraulic fracturing.

In terms of conservation, we undertake projects to provide the volumetric freshwater benefits that offset our use of fresh water. In these projects, we work with government agencies and nonprofit partners to restore wetlands and natural flow regimes, improve water quality and aquatic habitat, and positively influence watersheds, thereby protecting and increasing aquatic biodiversity. In 2017 and early 2018, for example, we completed a key ECH<sub>3</sub>O<sup>®</sup> project on the Cheat River in West Virginia that will significantly improve water quality in the river.

## 70%

of water used for hydraulic fracturing in our Fayetteville region in 2017 was recycled produced water

## 6+ billion

gallons of incremental fresh water delivered to the environment through conservation projects since launching ECH,0® in 2012

10

major conservation projects completed since 2012

#### Land

# At SWN, we treat land with respect and reduce our operational footprint whenever we can.

We aim to minimize surface impacts, prevent spills, reduce waste and protect biodiversity. We are also mindful of protecting important cultural and archeological sites. A SWN representative serves on the board of Leaders in Energy and Preservation, a coalition of energy companies and historic preservation experts that aims to avoid or mitigate impacts to archeological and historic sites of importance.

We have spill prevention countermeasure and control plans and spill response plans in place throughout our operations, and we regularly conduct spill response drills. Approximately 97 percent of our 2017 spills volume of 337 barrels was related to three produced water spills in Arkansas that were just off location and had very minimal environmental impact. We implemented spill response and containment efforts as soon as the spills were detected. No surface water or groundwater was impacted, and all affected soils were remediated.



# Climate Change and Scenario Analysis

SWN is committed to – and recognized for – the responsible development of needed energy resources, and we recognize the concerns of our stakeholders about climate change.

We also understand that regulations and practices aimed at protecting the environment, and specifically reducing GHG emissions, can affect our business. We consider these issues as part of our risk management process.

We have undertaken in-depth analyses of SWN's proved reserves under a range of climate change regulation scenarios. SWN's low-cost resources are well positioned under multiple 2°C scenarios. Our leadership in reducing GHG emissions further enhances our ability to comply with new policies and practices. Our capital discipline constrains us from investing in assets that are unlikely to recover their capital costs. Any impacts that do affect the ability to produce reserves would be reflected under U.S. Securities and Exchange Commission regulations governing the reporting of reserves.



## **HEALTH AND SAFETY**

SWN is committed to safeguarding employees, contractors and neighbors who work at and live near our operations.

To deliver on this commitment, we integrate responsible health and safety management into our business decisions, with a focus on prevention. Employees work side-by-side with our contractors as ONE Team with one goal: zero safety incidents.

Our HSE management system, which covers all SWN operating regions and divisions, includes integrated policies, programs, procedures, training and incentives. It also includes recurring goal-setting and evaluating processes, performance metrics, and clear guidance on actions and processes for protecting health and safety. As one example, all SWN employees and contractors working on our sites perform daily Job Safety and Environmental Analyses (ISEAs). Through ISEAs, team members walk through each step of the job together, identify any potential safety or environmental risks and develop measures to eliminate the hazards.

SWN's success depends in large part on the contractors who work alongside our employees daily. Because contractor safety performance has not kept pace with improvements in employee safety performance, we have been refocusing our efforts in 2018 to work as ONE Team with our contractors, building a common culture based on open communication, collaboration and shared accountability to reach one goal: zero safety or environmental incidents. In early 2018, for example, we held ONE Team summits across our operating divisions. We are now seeing early positive results from these ONE Team efforts.

0.65

**ONE Team Total Record**able Injury Rate in 2017, a record low, and down from 0.78 in 2016



**HSE** training hours in 2017, or approx-imately 14 hours per employee on average

contractor forums and more than 50 joint employee/contractor safety meetings held in 2017, as part of our ONE Team approach

field visits and hazard hunts observed and led by SWN leadership in 2017



## **COMMUNITIES**

# Where we work is where we live, and being a good neighbor is how we do business.

SWN employees proactively engage in two-way dialogues with local officials, citizens, businesses, nonprofit organizations, emergency responders and land and mineral owners. Every community is unique, so we tailor our approach as appropriate. However, the key elements of our community engagement efforts remain the same everywhere we operate: We share information openly, seek community feedback and work to understand, anticipate and resolve community concerns.

SWN's operations create jobs with higher-than-average wages, we make direct payments to local landowners through mineral leases and royalty payments, and we support government services and schools through property taxes, income taxes, severance fees, road impact fees and other direct payments. While low natural gas prices have changed the pace of our drilling activities in some of our operating areas, we remain committed to making long-term, positive economic contributions in the communities where we operate.

We take concerns about our operations seriously and address every one. Being responsive is a cornerstone of our approach. To facilitate timely communication, we have a 24-hour feedback hotline and prominently display the phone number on

our vehicles and on-site signs. When SWN is notified of a possible issue, we put the individual in touch with an employee who has the knowledge and authority to ensure the issue is addressed, and then we follow up to let the person know what we are doing in response. We respond to all calls within 24 hours, and most calls much sooner.

We take a strategic, companywide approach to philanthropy. This approach, which we call Social Energy, is coordinated to maximize impact across our focus areas – education; well-being; emergency response; clean air and water; family focus; and support of military service members – while incorporating local needs.

# \$2.3 million

in total charitable giving in 2017

4,056

hours volunteered by SWN employees in 2017

## \$546 million

paid by SWN in state and local taxes<sup>1</sup> since 2013

## WORKFORCE

A fundamental measurement of any company's performance is the work environment the company creates for its employees.

SWN's corporate culture fosters a safe, healthy, respectful and fair workplace with opportunities for career advancement. Our contractors and business partners are an essential part of our workforce, and we aim to collaborate as ONE Team with a shared vision for one goal: zero safety and environmental incidents.

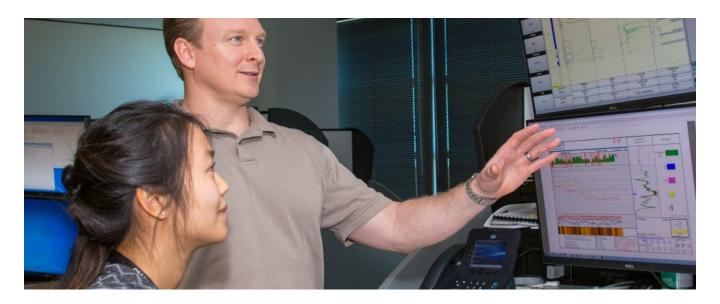
SWN believes in treating every employee with respect, dignity and fairness, and this belief guides our approach to workforce policies and programs – from recruiting and integrating new employees to supporting employees' development throughout their careers with SWN. We also understand the value of gender balance in our workforce, and we insist on fairness as it relates to opportunity and pay.

101%

average women's salaries compared to average men's



<sup>&</sup>lt;sup>1</sup> "Taxes" include state income taxes, payroll withholding taxes, severance fees, property taxes, franchise taxes, and sales and use taxes. Sales and use tax amounts included in the tax totals are exclusive of refund and audit payments.



## KEY DATA SUMMARY<sup>2</sup>

	2014	2015	2016	2017
Operating Revenues (millions of U.S. dollars)	\$4,038	\$3,133	\$2,436	\$3,203
Net Gas Production (billion cubic feet equivalent (Bcfe))	768	976	875	897
Number of Gross Producing Wells <sup>3</sup>	6,887	6,147	5,359	5,558
Estimated Proved Oil and Gas Reserves (Bcfe) <sup>3 4</sup>	10,747	6,215	5,253	14,775
Net Undeveloped Acres (millions of acres) <sup>3</sup>	4.9	4.3	3.6	1.1
Number of Employees <sup>3</sup>	2,781	2,597	1,469	1,575
Total Flowback and Produced Water that We Recycled (%)	99.4%	92.4%	43.4%	39.9%
Greenhouse Gas Emissions Intensity (kilograms of carbon dioxide equivalents per million BTUs of gas produced)	2.96	2.68	2.64	2.31
Methane Leak/Loss Rate – Production Operations Only (%)	0.176	0.192	0.175	0.171
Volume of Tier 1 and 2 Unplanned Discharges (barrels)	229	1,251	5	337
Charitable Giving (millions of U.S. dollars)	\$3.45	\$2.82	\$1.70	\$2.32
Total Recordable Incident Rate for Employees (per 100 employees)	1.14	0.65	0.83	0.29
Total Recordable Incident Rate for Contractors (per 100 contractors)	1.17	0.76	0.72	0.83

 $<sup>^{\</sup>rm 2}$  See <u>swncr.com/data</u> for notes to the data and explanations of restatements.  $^{\rm 3}$  As of December 31



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<sup>&</sup>lt;sup>4</sup> Due to improved commodity prices and our continued strong well performance, our proved reserves increased significantly in 2017.