EAST COAST INVESTOR MEETINGS

DECEMBER 2018

NW Natural HOLDINGS™

INVESTOR INFORMATION

COMPANY INFORMATION

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FORWARD LOOKING STATEMENTS

This and other presentations made by NW Natural Holdings from time to time, may contain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to the safe harbors created by such Act. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects” and similar references to future periods. Examples of forward-looking statements include, but are not limited to, statements regarding the following: plans, objectives, goals, strategies, future events, acquisitions and integration thereof, corporate organization including conversion to a holding company structure, storage, pipeline and other infrastructure investments, commodity costs and sourcing, competitive advantage, marketing success, service territory, customer service, customer and business growth, weather, customer preference, conversion potential, multifamily development, business risk, efficiency of business operations, regulatory recovery, business development and new business initiatives, water industry and investments, environmental remediation recoveries, gas storage markets and business opportunities, gas storage development, costs, timing or returns related thereto, financial positions and performance, economic and housing market trends and performance shareholder return and value, capital expenditures, liquidity, strategic goals, carbon emissions and savings, workforce trends, hedge efficacy, cash flows and adequacy thereof, return on equity, capital structure, return on invested capital, revenues and earnings and timing thereof, margins, net income, operations and maintenance expense, dividends, credit ratings and profile, debt and equity issuances, the regulatory environment, effects of regulatory disallowance, timing or effects of future regulatory proceedings or future regulatory approvals, regulatory prudence reviews or deferrals, effects of regulatory dockets or mechanisms, including, but not limited to, the Company’s rate case, tax reform, SRRM and the Company’s infrastructure investments, effects of legislation, including but not limited to tax reform, PHMSA regulations and carbon regulations, and other statements that are other than statements of historical facts.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements, so we caution you against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements are discussed by reference to the factors described in Part I, Item 1A “Risk Factors,” and Part II, Item 7 and Item 7A “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Quantitative and Qualitative Disclosure about Market Risk” in the Company’s most recent Annual Report on Form 10-K, and in Part I, Items 2 and 3 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Quantitative and Qualitative Disclosures About Market Risk”, and Part II, Item 1A, “Risk Factors”, in the Company’s quarterly reports filed thereafter.

All forward-looking statements made in this presentation and all subsequent forward-looking statements, whether written or oral and whether made by or on behalf of the Company, are expressly qualified by these cautionary statements. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

INTRODUCTION



LEADERSHIP



DAVID H. ANDERSON • President and Chief Executive Officer

Mr. Anderson is currently NW Holding's President and CEO effective October 2018 and NW Natural's President and CEO effective August 2016. Since he joined NW Natural in 2004, Mr. Anderson has served in various executive positions over Operations, Regulation and Financial Matters, as COO and CFO. Previously, Mr. Anderson held executive positions within TXU Corporate including Senior Vice President and Chief Accounting Officer. Mr. Anderson holds a BBA in Accounting from Texas Tech University and held a CPA (retired) and CGMA.



FRANK BURKHARTSMEYER • SVP and Chief Financial Officer

Mr. Burkhartsmeyer is currently NW Holding's Senior Vice President and CFO effective October 2018 and NW Natural's Senior Vice President and CFO effective May 2017. Previously, Mr. Burkhartsmeyer served as President and CEO of Avangrid Renewables and Senior Vice President of Finance at Iberdrola Renewables US and also held various positions at PPM Energy, ScottishPower and PacificCorp. Mr. Burkhartsmeyer has an MBA from the University of Oregon and a Bachelor of Arts in Liberal Arts from the University of Montana.



BRODY J. WILSON • Vice President Chief Accounting Officer, Controller, and Treasurer

Mr. Wilson is currently NW Holding's Vice President Chief Accounting Officer, Controller, and Treasurer effective October 2018, and NW Natural's Vice President and Treasurer effective May 2017 in addition to his duties as Chief Accounting Officer (2016) and Controller (2013). Prior to joining the Company in 2012, he was a Senior Manager in the Energy & Utility Group at PricewaterhouseCoopers LLP. Mr. Wilson holds a Bachelor of Science in Accounting from George Fox University and is a CPA in Oregon.

Q3 2018 KEY UPDATES

Q3 2018 Recap

- $1.00 earnings per share for YTD Q3 2018 vs. $1.20 per share for prior period
- Falls Water transaction closed, adding 5,300 connections to water business

Updates Since Q3 2018

- Oregon rate case: major items resolved with tax reform & pension balancing account ordered to be resolved by February 1, 2019
- Sunriver water and wastewater acquisition announced for 9,400 connections
- Closed three outstanding water transactions, adding 2,050 connections
- North Mist project estimated at $144 million with in-service targeted for March 31, 2019
- NW Natural reorganized under a holding company structure on Oct. 1, 2018

Continuing to Execute on Strategy

INVESTMENT HIGHLIGHTS*

Growth projections and expectations over the next five years include:

Financial Targets

- EPS growth of 3% - 5%
- Strong and growing dividend

Gas Utility Growth

- Customer growth 1.7%+ per year
- $750 - $850 million five-year capital plan, resulting in rate base growth of 4% - 5%
- Additional regulated storage expansion – North Mist

Water Growth

- Long-term strategy to provide incremental earnings growth and diversity
- Deliberate and disciplined roll-up strategy focused in West

*Customer growth, capital investment, and rate base are forecasted over five year plan period from 2018 – 2022, earnings per share growth rate uses 2018 as base year.

Stable and Growing Return Proposition

CONSERVATIVE CORPORATE STRATEGY

Stable gas and water utility margins through progressive regulation

- Gas utility: weather, decoupling, and environmental cost recovery mechanisms in Oregon
- Constructive relationships with regulators and customer groups benefits both gas and water utilities

Excellent operations and efficient cost structure

- Commitment to safety, reliability, and high-quality service
- Continued focus on efficient business operations



Long-term growth opportunities that fit NWN's profile

- **GAS UTILITY**: attractive and growing service territory driving above-average customer growth compared to peers and investments
- **MIST FACILITY**: high-value long-term contracts, asset management revenues, North Mist expansion
- **WATER & WASTEWATER**: announced long-term, disciplined strategy to acquire water and wastewater utilities in a highly fragmented industry with ample infrastructure investment opportunities

STRATEGIES TO DRIVE SUCCESS



Low-Carbon Pathway

Effectively position our Company for a low-carbon future

- Target: 30% carbon emissions savings associated with current and new customers by 2035, from a 2015 baseline
- Build public policy coalitions to support this goal



Constructive Regulation

Further a successful regulatory agenda that serves the interests of customers, benefits the company, meets the duties of regulators and furthers stakeholders' missions



Enable Growth

Channel our organizational energies around revenue growth so we can succeed in an increasingly competitive and complex marketplace

- Simplify processes and leverage technology
- Examine our tariffs to meet new market demands and a low-carbon business model



Superior Customer Experience

Improve processes, deploy new technology and use metrics to continually improve and meet evolving customer expectations

Continue to drive operational priorities that ensure we are delivering safe, reliable and superior service



Workforce of the Future

Foster a culture of accountability, creativity and collaboration that is inclusive and supports opportunities for cross-functional effectiveness


NATURAL GAS UTILITY

GAS UTILITY AT A GLANCE

- Nearly 160 years of service in our communities
- Largest stand-alone local distribution company in the Pacific Northwest
- Serve 2 million people in more than 140 communities through 740,000 meters in Oregon and southwest Washington
- Consistently recognized for high-quality customer service by J.D. Power
- One of the safest, most modern distribution systems in the country
- $3 billion of assets at September 30, 2018



DIVERSE RESOURCE PORTFOLIO

Gas Supply

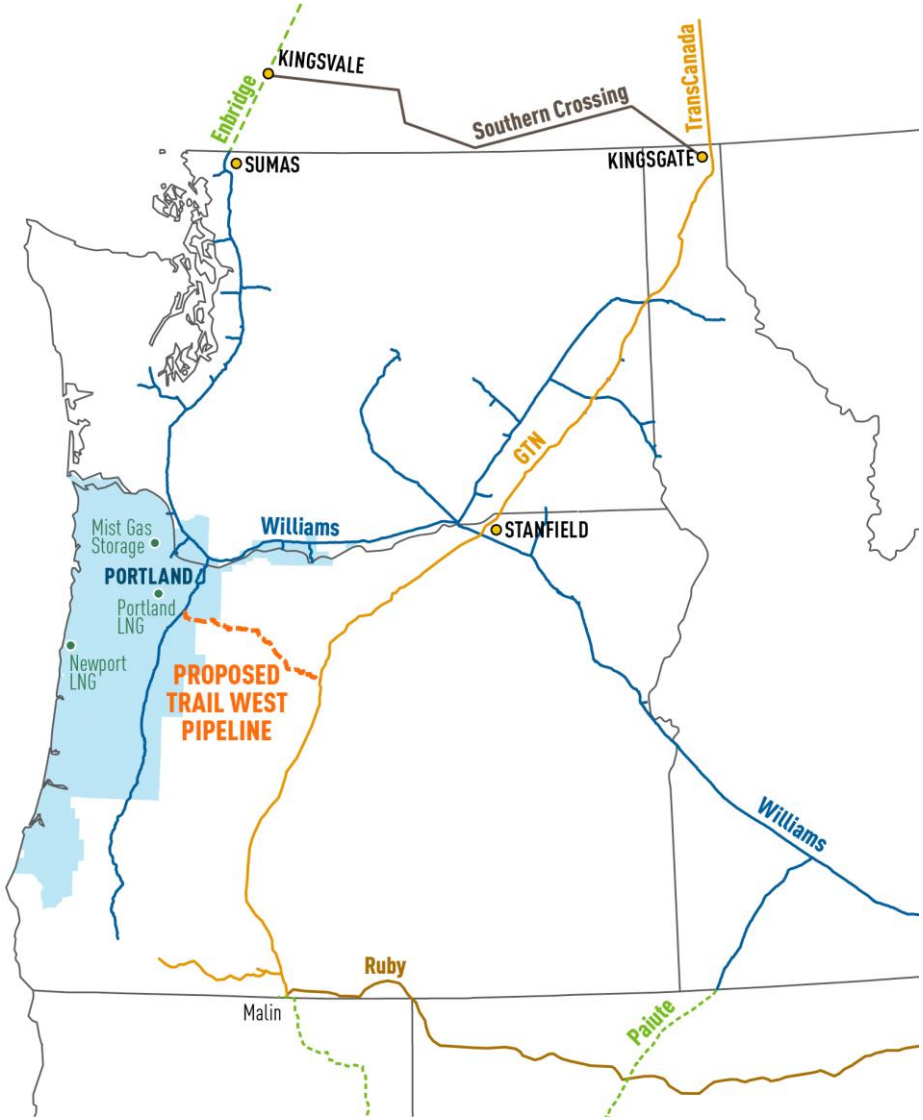
- 60% supply from Canada
- 40% supply from the Rockies
- Natural gas serves territory through one bi-directional pipeline

LNG Peaking Facilities

- Portland LNG – 0.6 Bcf
- Newport LNG – 1.0 Bcf

Mist Gas Storage Facility

- Valuable asset – limited storage in the Pacific Northwest
- 16 Bcf facility with 11 Bcf serving utility customers and 5 Bcf under long-term contracts
- Utility can recall 5 Bcf to support customer demand



ATTRACTIVE ECONOMY

LEADING THE NATION

#2 In-Bound State for Moves
#2 Nonfarm Payroll Growth Rate
#4 GDP Growth Rate

GROWING BUSINESSES

adidas
Columbia Sportswear Company
NIKE
intel
FLIR
UNDER ARMOUR

STRONG HOUSING MARKET

Housing Permits +3.0%
Housing Sales +3.1%



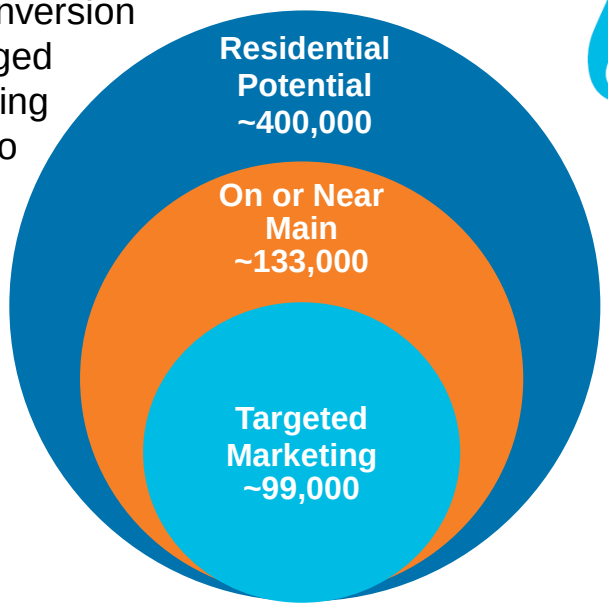
*Source: In-bound moves rate from 2017 United Movers Study, Nonfarm payroll growth from US BLS for 2017, and GDP from U.S. BEA for 12 months ending 9/30/17 vs prior period. Permits for Portland Metro single-family homes for Sept. 2018 vs. prior period from U.S. Census Bureau via Federal Reserve Bank of St. Louis. Sales for Portland Metro for Sept. 2018 vs. prior period from Zillow.

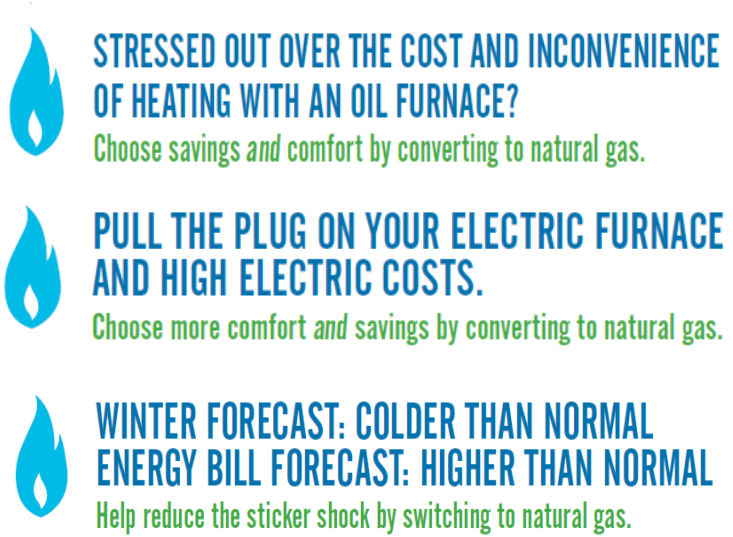
Serving Growing Communities

DATA-DRIVEN MARKETING

Segmentation Strategy

- NW Natural works with a consulting firm to develop a qualitative propensity modeling approach
- Attributes from the past 10 years of converted customers are analyzed to determine premise and homeowner traits that correspond to the likelihood of conversion
- A segmented database is created and non-customer conversion prospects are messaged through direct-marketing campaigns using up to 7 unique segments







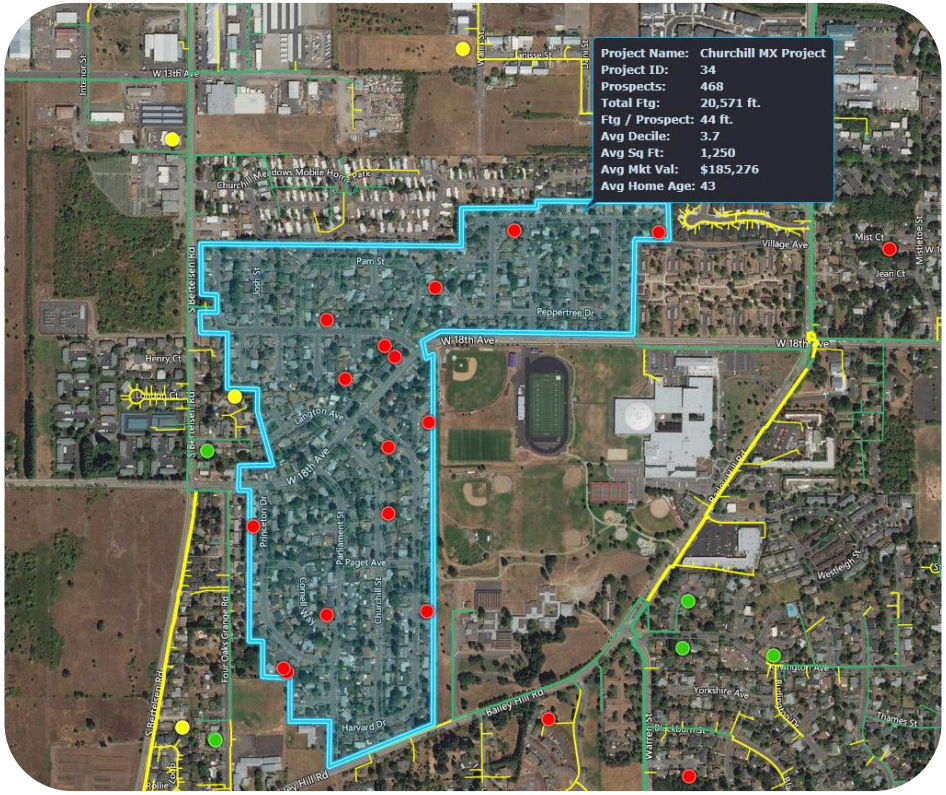
INNOVATIVE MARKETING TOOL

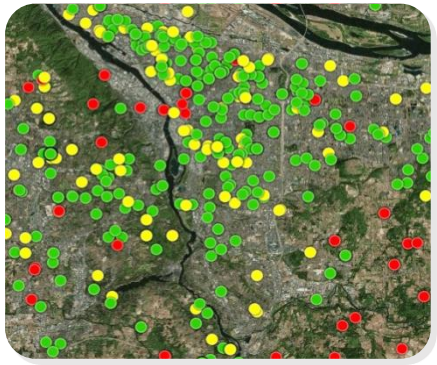
Competitive Advantage

- Low-cost, reliable, clean energy choice
  - Up to 70% cost advantage
- Preferred by 9 out of 10 homeowners
  - Comprehensive research quantifies preference and value of gas
- Strong trade ally network
  - Rate NWN 9 out of 10 for satisfaction
- Leverage preference and robust analytics
  - Data driven, proven methodology
- Serve approximately 63% of single-family homes

Technology Differentiation

- Cutting edge web-based tool for targeted conversions, validates customer interest
- Enhanced web services for trade allies
- Ability to proactively identify targets and analyze cost profiles
- Ability to identify potential main extensions





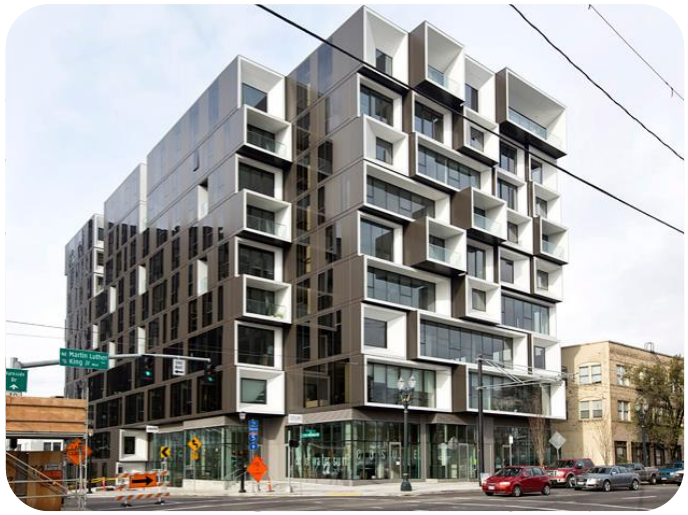
FOCUSING ON MULTIFAMILY

Market Activity

- Increase in multifamily construction, especially mixed-use developments in urban areas
- Tight rental market, in-migration, and positive economic trends have led to segment growth
- See apartments as a previously untapped growth opportunity and new priority segment

Executing on the Opportunity

- Utilized upstream intelligence to engage developers early about building design and equipment scenarios
- Analyzed renter preferences and natural gas availability, showing a competitive opportunity
- Created comprehensive marketing program (streamlined piping and meter room design, technical support and financial incentives)
- Gained approval of new multifamily tariff in July 2017 – provides developers more options



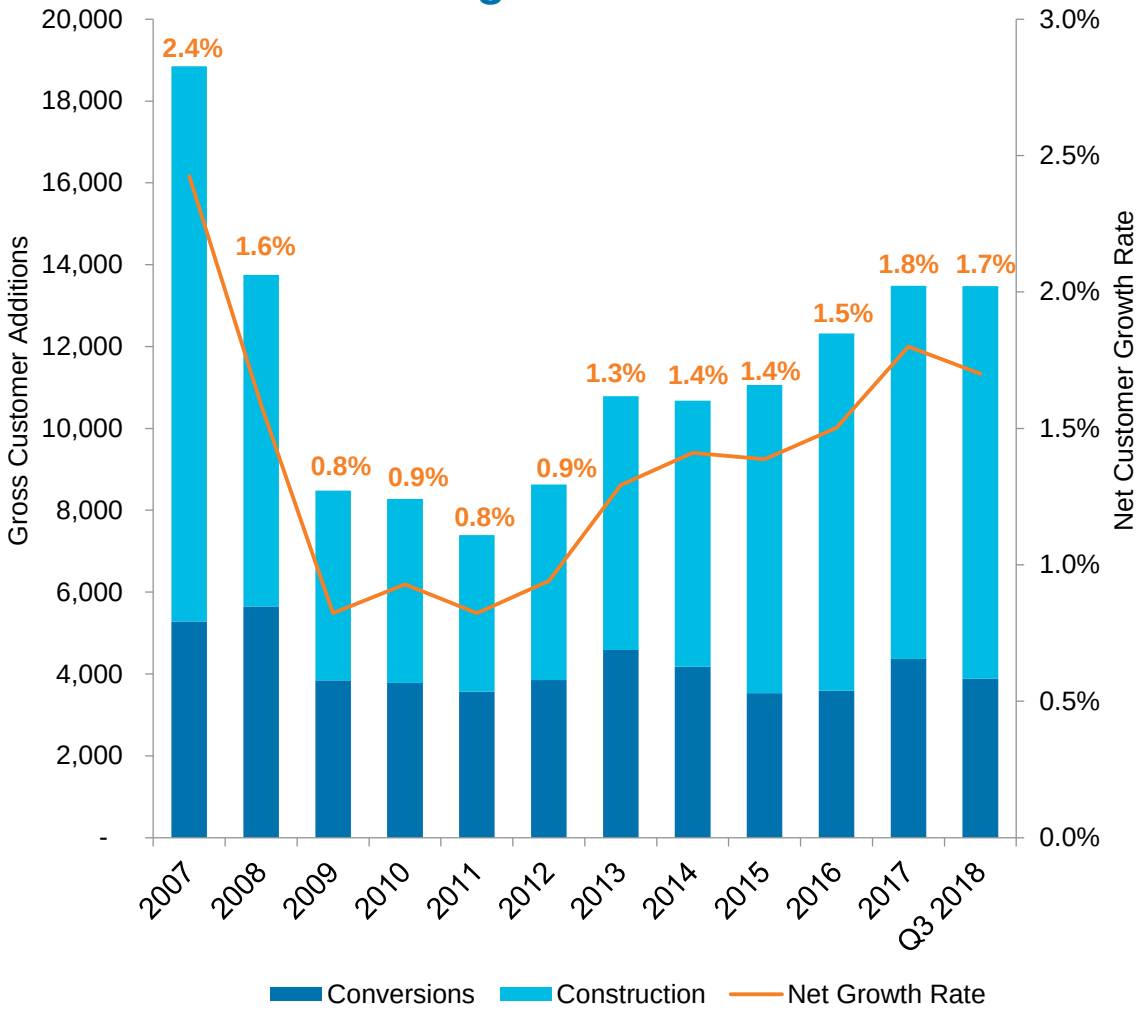
Slate at 3rd & Couch – completed in 2016 – 75 units



The Carson – completed in 2018 – 385 units

LEADING IN CUSTOMER GROWTH

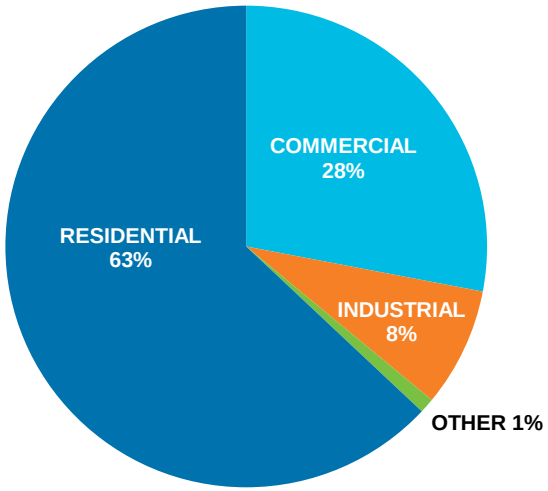
2017 Marked Highest Growth in Decade



Growth by Sector (Q3 2018)

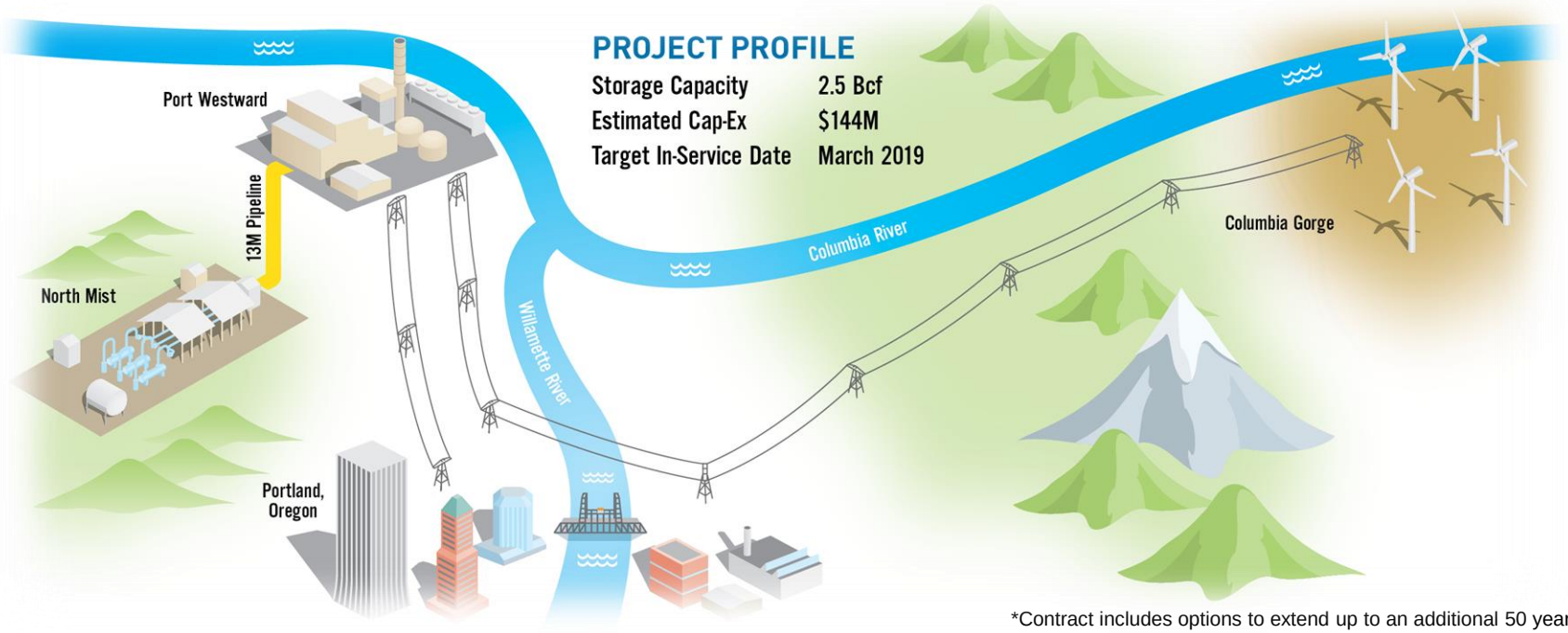
Residential	1.8%
Commercial	1.4%
Industrial	0.6%
TOTAL	**1.7%**

Utility Margin 2017



INVESTING IN INNOVATION

- Unique no-notice 24/7 storage service supporting gas-fired electric generating facilities that are integrating wind into energy generation mix
- $144 million investment with ~$25 million of cap-ex in 2018 and ~$10 million in 2019
- Contracted under 30-year agreement with single-customer (PGE)*
- Included in rate base under established tariff schedule when placed into service



*Contract includes options to extend up to an additional 50 years

North Mist Expansion Supports Renewables Integration

INVESTING IN OUR SYSTEM

Customer growth

- New construction & conversions
- Main extensions

Safety & Reliability

- Recurring replacements
- Enhanced system reliability to support customer growth

Technology & Facilities

- Efficiencies & cybersecurity
- Resource center renovations

Potential Future Opportunities

- PHMSA & seismic projects, not included in current 5-year range

System Capital Expenditures*

(In millions)

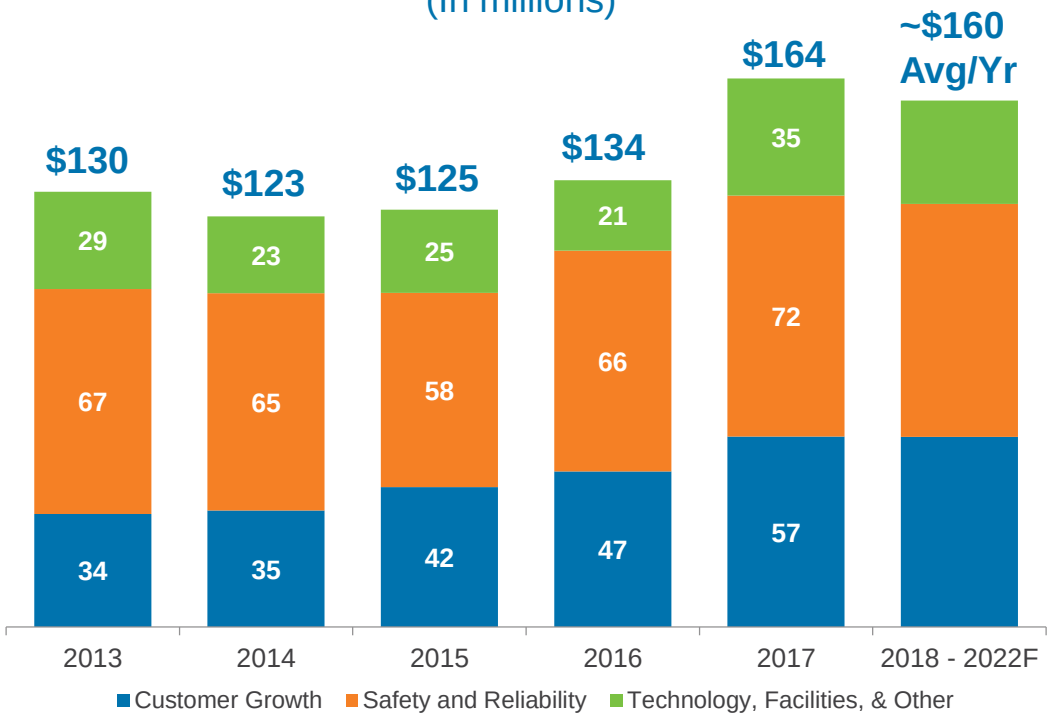


*Chart is based on accrual cap-ex figures. Forecasted cap-ex in chart excludes North Mist. Estimate $20 - $30 million of cap-ex in 2018 and $10 million in 2019 for North Mist Expansion.

Five-Year Cap-Ex Range $750 - $850 Million

PROGRESSIVE REGULATION

	OREGON	WASHINGTON
KEY MECHANISMS:		
Decoupling/WARM	✓	
Purchased Gas Adjustment	✓	✓
Environmental Cost	Recovery	Deferral(1)
Pension Balancing	✓(2)	
Incentive Sharing(3)	✓	✓
RATE CASE TEST YEAR	Forward	Historic
RATE STRUCTURES:		
ROE	9.4%	10.1%
ROR	7.317%	8.4%
Equity Ratio	50%	51%
2017 Rate Base(4)	$1.2B	$0.1B

(1) Washington allows deferral of environmental costs, but a cost recovery mechanism or methodology has not yet been established by the Washington Commission. A carrying charge related to deferred amounts will be determined in a future proceeding.

(2) Pension balancing account was frozen as of Oct. 31, 2018 as part of 2018 Oregon general rate case. Further proceeding to determine recovery of balance, which has been ordered by OPUC to be complete by Feb. 1, 2019.

(3) In Oregon, NW Natural shares PGA gains and losses. In both Oregon and Washington, NW Natural shares revenues with customers from interstate storage and asset management activities.

(4) Oregon rate base includes gas reserves.

OREGON 2018 RATE CASE

- **Order Resolves Majority of Items –** Resolved majority of revenue requirement items and sharing allocations for utility asset management revenue with customers
- **Rate Case to Continue for Two Items –** Tax reform and pension balancing account recovery continue to be reviewed with completion by Feb. 1, 2019 and order expected in March 2019. These are primarily cash flow related matters
- **Rates Effective Nov. 1, 2018 –** Oregon rate case effective on Nov. 1, 2018 along with annual Purchase Gas Adjustment (PGA). The combined effect on Oregon customer rates was a decline of 2.1%

	2012 Rate Case	2018 Rate Case
ROE	9.5%	9.4%
ROR	7.78%	7.317%
Equity/Debt Ratio	50 / 50	50 / 50
Rev. Requirement		+$23.4M
Net Benefit to Company		+$14.2M
Cash Flows		+$15.0M
Rate Base	$886M	$1,186M


WATER

STRATEGIC RATIONALE

The water and wastewater sector aligns well with NWN's conservative risk profile and offers diversification, stable cash flows and substantial long-term investment opportunities

Conservative Business Profile

- Demand for water and wastewater is relatively inelastic
- Stable, predictable cash flows

Aligns with Core Competencies

- Aligns with our core competencies including:
  - Customer service
  - Developing and managing critical distribution infrastructure safely and reliably
  - Environmental stewardship
  - Constructive regulatory engagement

Supportive Regulatory Environment

- Existing constructive relationships with regulators that can be leveraged in water sector
- Federal and state agencies driving upgrades to water and wastewater infrastructure

Need for Substantial Investment

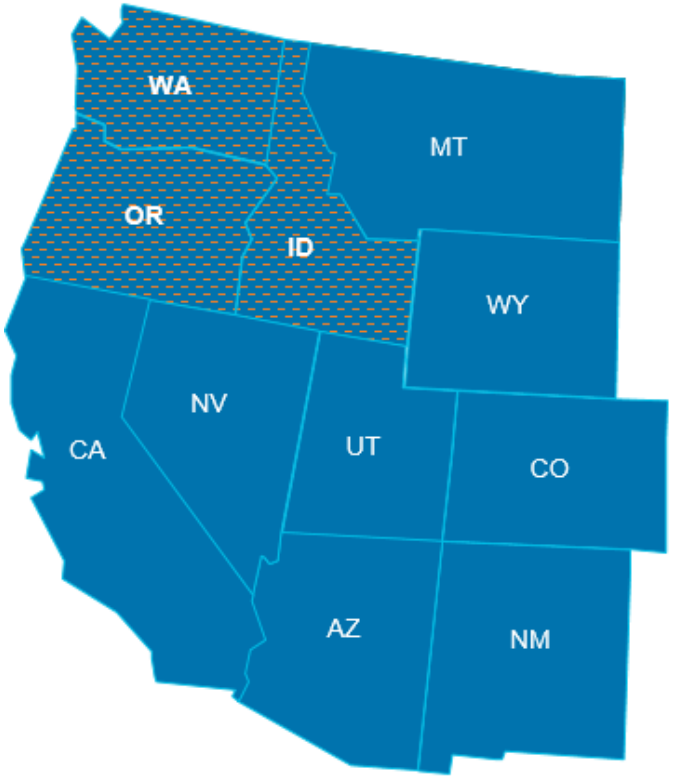
- EPA estimates over $775 billion in water and wastewater capital needs nationally through 2040
- Over long term, growing water business to be an earnings driver and opportunity to deploy capital at attractive rates of return for infrastructure needs

Deliberate and Disciplined Roll-Up Strategy

WATER & WASTEWATER OPPORTUNITIES

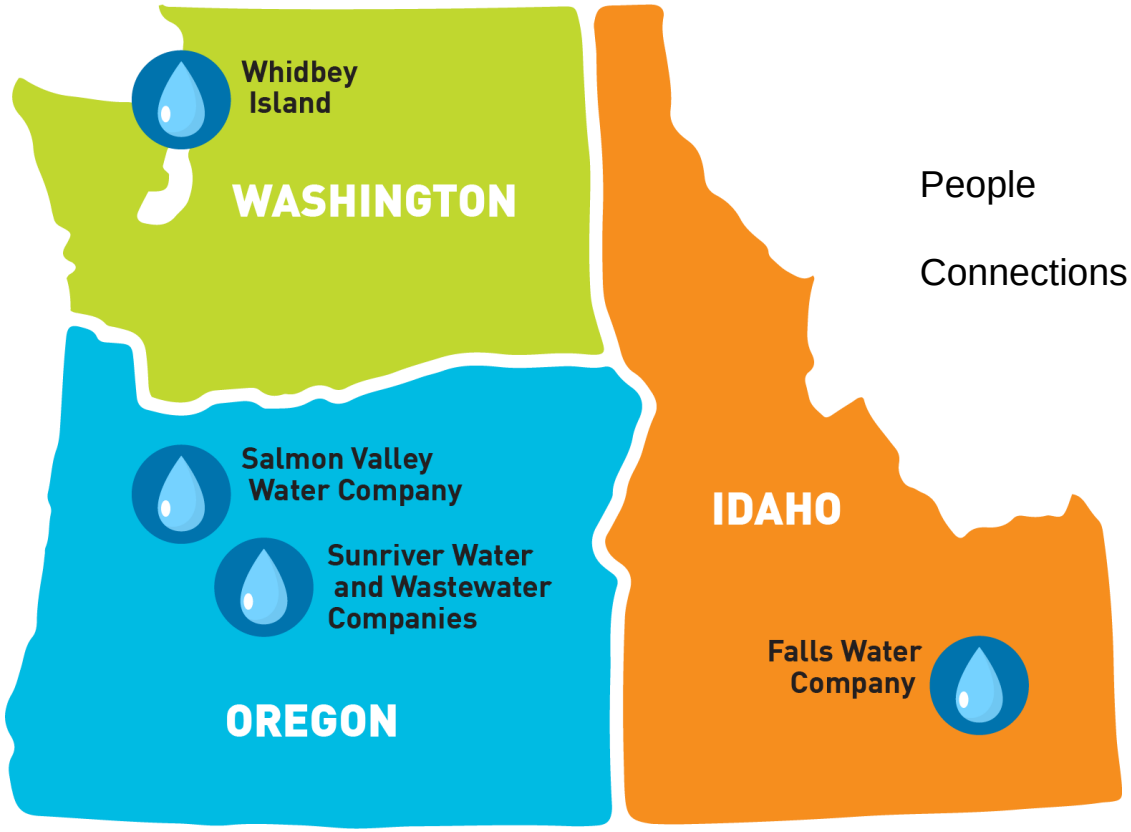
	All Water and Wastewater Systems		Privately Owned Systems	
	Systems	Connections	Systems	Connections
Pacific Northwest	4,700	5.6M	**2,760**	**512,000**
Western Region	13,800	36.0M	7,300	4.4M
United States	77,000	188.6M	30,160	20.5M

Numbers in table above represent permanent community water and wastewater systems
Source: Bluefield



Opportunities for Acquisitions in the West

ACQUISITIONS



	Closed	Sunriver Pending*	Total
People	22,000	20,000	42,000
Connections	7,350	9,400	16,750

*Sunriver transaction expected to close in the first half of 2019.

Growing Our Pacific Northwest Footprint

FINANCIAL PERFORMANCE

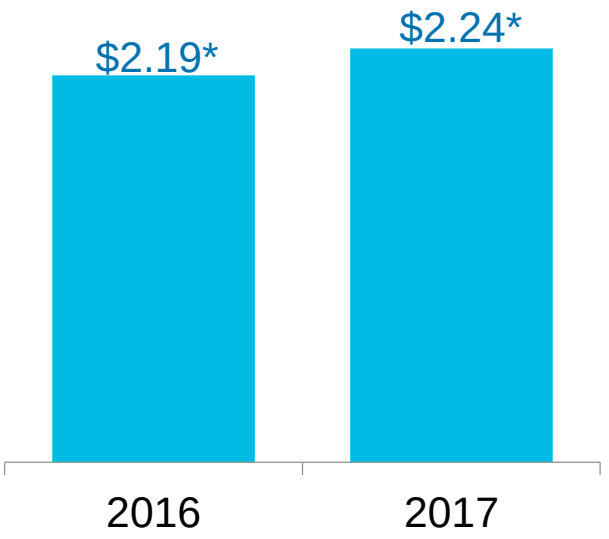


EARNINGS GROWTH

Growth from Regulated Gas Utility Earnings

- Strong gas utility customer growth
- Innovative North Mist expansion
- Gas utility Oregon general rate case
- Gas utility Investments in system resiliency
- Continued operational efficiency

Adjusted Consolidated EPS*



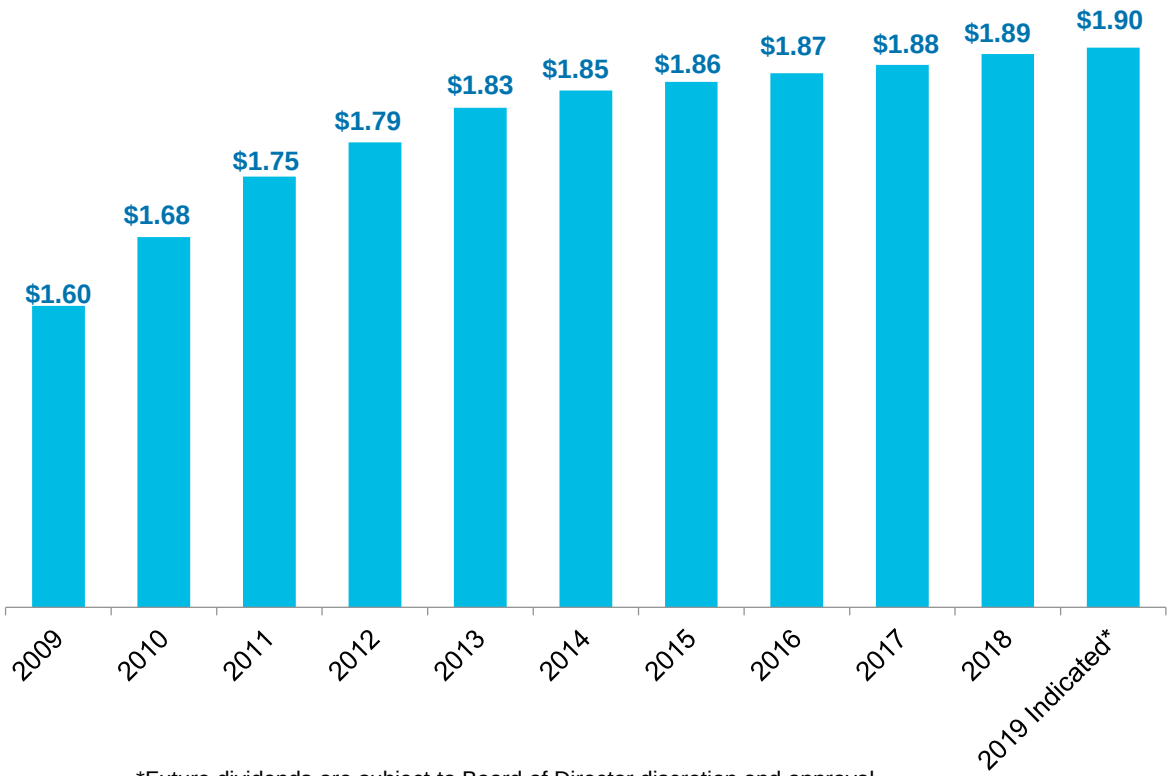
*Adjusted 2017 consolidated EPS excludes Gill Ranch impairment of $192.5 million pre-tax ($141.5 million after-tax or $4.92 per share) and tax reform benefits of $21.4 million or $0.75 per share from GAAP consolidated net loss of $55.6 million or $1.93 per share. Adjusted 2017 consolidated EPS can be calculated from financial statements and discussion filed on Sept. 24, 2018 in an 8-K, which presented GAAP net income from continuing operations of $72.1 million (or $2.51 per share) and adjusted net income from continuing operations as $68.7 million (or $2.39 per share). Adjusted Consolidated 2016 EPS excludes regulatory disallowance of $2.0 million after-tax from GAAP consolidated net income of $58.9 million or $2.12 per share. See appendix for non-GAAP reconciliation.

Continued Investment Fueling EPS Growth

LEGACY OF GROWING DIVIDENDS

- 1 of only 3 companies on NYSE with 63-year legacy of increasing annual dividends

Increasing Dividends*



*Future dividends are subject to Board of Director discretion and approval.

63 Years of Increasing Dividends Paid

STRONG CASH FLOWS & LIQUIDITY

NW Holdings

- $100 million credit facility. Expires in 2023 with $50 million accordion and extension for two additional one-year periods
- Access to capital markets

NW Natural

- $300 million credit facility. Expires in 2023 with $150 million accordion and extension for two additional one-year periods
- Access to capital markets
- Solid credit ratings(1)

NW Natural Credit Ratings(1)

	S&P	Moody's
Secured Debt	AA-	A1
Commercial Paper	A-1	P-2
Outlook	Stable	Negative

(1) The above credit ratings are dependent upon a number of factors, both qualitative and quantitative, and are subject to change at any time. The disclosure of these credit ratings is not a recommendation to buy, sell or hold NW Holdings securities.

CONCLUSION



INVESTMENT THESIS

Stable and growing utility margins driven by expectations over the next five years including:

- EPS growth of 3% – 5%
- Gas utility customer growth 1.7%+
- Gas utility $750 - $850 million five-year capital plan, resulting in rate base growth of 4% – 5%



Excellent operations and efficient cost structure

- Commitment to safety, reliability, and high-quality service
- Continued focus on efficient business operations

Low-Risk Growth

- North Mist in gas utility segment provides additional regulated storage expansion
- Water strategy provides earnings diversity

Stable and Growing Return Proposition

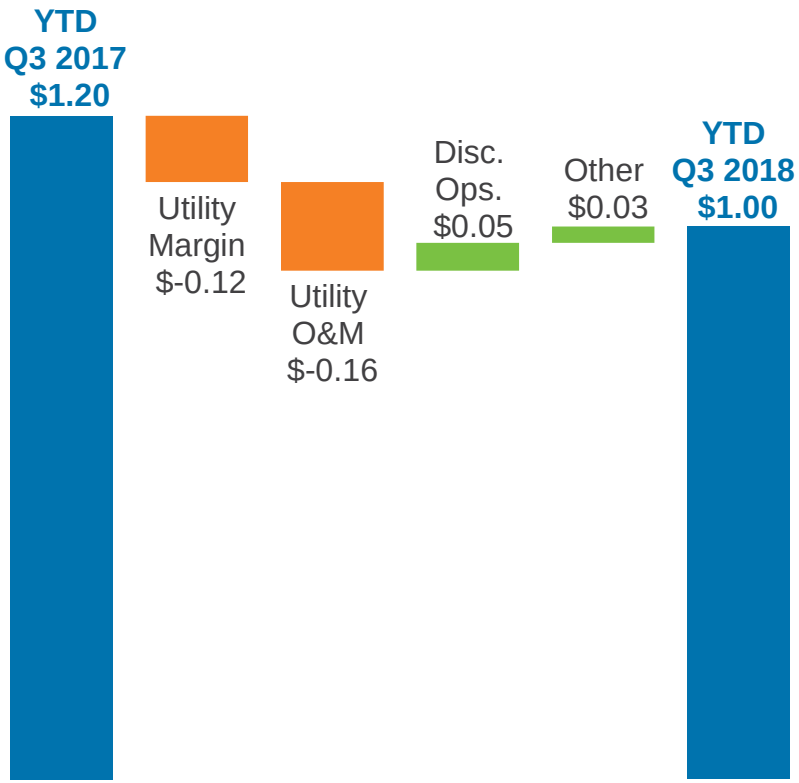

APPENDIX

CONSOLIDATED RESULTS

Results on track

- Utility margin lower
  - Weather returning to relatively average temperatures in 2018 vs. very cold 2017
  - Strong customer growth of 1.7%
  - Tax reform estimated to have neutral effect on YTD results
- Other results improve
  - Higher asset management revenues at non-utility Mist gas storage
  - Discontinued operations benefits from lower depreciation expense at Gill Ranch facility from Q4 ’17 non-cash impairment

Results Driven by Weather & O&M



Stable Utility Performance

2017 CONSOLIDATED RESULTS

(In millions)	2017 Pre-Tax	2017 Tax	2017 After-Tax	2017 Per Share	2016 Pre-Tax	2016 Tax	2016 After-Tax	2016 Per Share
GAAP consolidated net income (loss)			**$(55.6)**	**$(1.93)**			**$58.9**	**$2.12**
Gill Ranch impairment	$192.5	$(51.0)	141.5				-	
Regulatory disallowance			-		$3.3	$1.3	2.0	
Tax reform benefit	-	(21.4)	(21.4)				-	
Adjusted net income			**$64.5**	**$2.24**			**$60.9**	**$2.19**
Diluted Shares				**28.8**				**27.8**

- GAAP consolidated net loss of $1.93 in 2017 driven by Gill Ranch impairment offset by benefits from tax reform
- Adjusted net income up 5 cents to $2.24 in 2017, compared to $2.19 in 2016 from strongest utility customer growth in a decade and colder weather, partially offset by higher O&M expense

Adjusted consolidated net income excludes the non-cash impact of the Gill Ranch impairment and tax reform in 2017 and the regulatory environmental disallowance in 2016 to provide comparability with previous periods and transparency into underlying drivers of results. See Non-GAAP reconciliation.

Strong Utility Performance And Tax Reform Offset By Accounting Impairment Due To Gill Ranch

NON-GAAP RECONCILIATION

(In millions)	2017		2016	
	Amount	Per Share	Amount	Per Share
CONSOLIDATED				
GAAP consolidated net income (loss)	$(55.6)	$(1.93)	$58.9	$2.12
Gill Ranch impairment[1]	192.5	6.69	-	-
Regulatory disallowance[2]	-	-	3.3	0.12
Income tax effect of pre-tax adjustments[1,2]	(51.0)	(1.77)	(1.3)	(0.05)
Tax reform benefit[3]	(21.4)	(0.75)	-	-
Consolidated adjusted net income[4]	$64.5	$2.24	$60.9	$2.19
Diluted Shares		28.8		27.8

[1] Gill Ranch non-cash impairment recognized as of Dec. 31, 2017. Tax effect of adjustment is calculated using a combined federal and state statutory rate of 26.5%.

[2] Regulatory environmental non-cash disallowance taken in the first quarter of 2016 related to NW Natural's compliance filing under the environmental recovery mechanism with the total pre-tax charge of $3.3 million recorded in gas utility other income ($2.8 million) and gas utility operation and maintenance expense ($0.5 million). Tax effect of adjustment is calculated using a combined federal and state statutory rate of 39.5%.

[3] Tax reform non-cash (benefit) expense recognized in income tax expense as a result of federal tax rate changing from 35% to 21% effective Dec. 22, 2017.

[4] Adjusted 2017 consolidated EPS can be calculated from financial statements and discussion filed on Sept. 24, 2018 in an 8-K, which presented GAAP net income from continuing operations of $72.1 million (or $2.51 per share) and adjusted net income from continuing operations of $68.7 million (or $2.39 per share).

TAX REFORM

HISTORICAL EDIT
(Pre Jan 1, 2018)

$216 Million

Oregon
- Further proceeding in Oregon general rate case to determine how to return benefit to customers
- Majority EDIT related to plant (ARAM) and to be returned to customers considering IRS guidance

Washington Process
- To be determined in future regulatory proceeding
- EDIT offsetting rate base

INTERIM DEFERRAL
(2018)

~$8 Million

Oregon
- Further proceeding in Oregon general rate case to determine how to return benefit to customers
- Oregon interim deferral estimated at ~$6M

Washington Process
- To be determined in future regulatory proceeding
- Accruing interest at FERC rate 4.25%

FUTURE RATES
(Nov. 1, 18 – forward)

Oregon Order
- Oregon rate case order, reset customer rates on Nov. 1, 2018 and incorporated lower federal tax rate

Washington Process
- To be determined in future regulatory proceeding
- Will accrue interest at FERC rate 4.25%

Generally Favorable Results From Higher Rate Base Over Time
Some Near-Term Cash Flow Impacts in 2018-19

SUPPORTIVE MECHANISMS

OREGON
Decoupling

- Breaks link between earnings and consumption by removing incentive to increase usage
- Employs use-per-customer decoupling calculation, which adjusts margin revenues to account for the difference between actual and expected customer volumes

OREGON
Weather Normalization (WARM)

- Stabilizes collection of fixed costs for residential and commercial customers
- Adjusts billings based on temperature variances compared to average weather
- Applied from December through May of each heating season

OREGON • WASHINGTON
Purchased Gas Adjustment (PGA)

- Adjusts annual rates to reflect changes in expected cost of gas commodity purchases
- Includes spot purchases, contract supplies, derivatives, storage inventories, in OR gas reserves
- Includes temporary rate adjustments amortizing deferred regulatory account balances

OREGON • WASHINGTON
Environmental Cost Deferral

- Allows for deferral of environmental costs and in OR the accrual of carrying costs
- Recovers environmental costs allocated to OR through a site remediation recovery mechanism (SRRM), subject to an annual prudence review and earnings test(1)
- Defer costs in WA, recovery & carrying charge to be determined in future proceeding

OREGON
Pension Balancing(2)

- Prior to Nov. 1, 2018, deferred annual pension expenses above the amount set in rates was included in the balancing account. Recovery of account balance to be determined in open proceeding with OPUC
- Beginning Nov. 1, 2018, FAS 87 pension expense recovery in base rates

(1) To the extent the utility earns more than its authorized ROE in a year, the utility is required to cover environmental expenses and interest on expenses greater than $10 million (plus interest from insurance proceeds) with those earnings that exceed its authorized ROE.
(2) 2018 Oregon general rate case froze pension balancing account with recovery of the balance to be determined in further proceeding. NW Natural was authorized to recover test year FAS 87 pension expense in base rates. See also Oregon Rate Case Update.

CURRENT UTILITY COMMISSIONERS

OREGON COMMISSION (OPUC)



Megan Walseth Decker, Chair (D)

- Appointed April 2017
- Term ends March 2021
- Appointed Chair May 23, 2018



Stephen Bloom, Commissioner (R)

- Originally appointed December 2011
- Reappointed May 2016
- Current term ends November 2019



Letha Tawney, Commissioner (D)

- Appointed May 2018
- Term ends May 2020

WASHINGTON COMMISSION (WUTC)



David Danner, Chair (D)

- Appointed chair February 2013
- Current term ends January 2019



Ann Rendahl, Commissioner (D)

- Appointed December 2014
- Current term ends November 2020



Jay Balasbas, Commissioner (R)

- Appointed May 2017
- Term ends January 2023

IDAHO COMMISSION (IUTC)



Paul Kjellander, President (NP)

- Appointed
- February 2017
- Current term ends January 2023



Kristine Raper, Commissioner (NP)

- Appointed February 2015
- Current term ends January 2021



Eric Anderson, Commissioner (NP)

- Appointed December 2015
- Term ends January 2019

NP = Nonpartisan

MIST STORAGE FACILITY

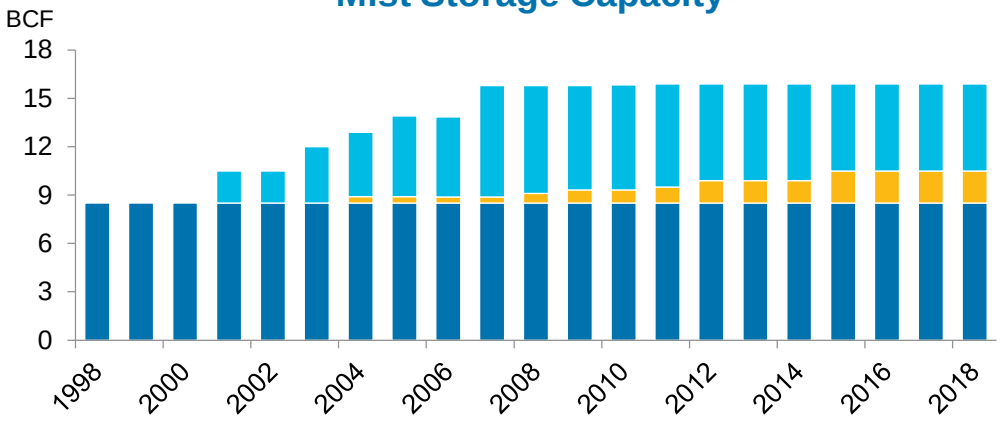
Overview

- In operation since 1989
- Storage capacity at Mist 16 Bcf
  - 11 Bcf Core Utility
  - 5 Bcf Interstate Storage Services (included in other activities beginning in Q2 2018; previously in gas storage segment)

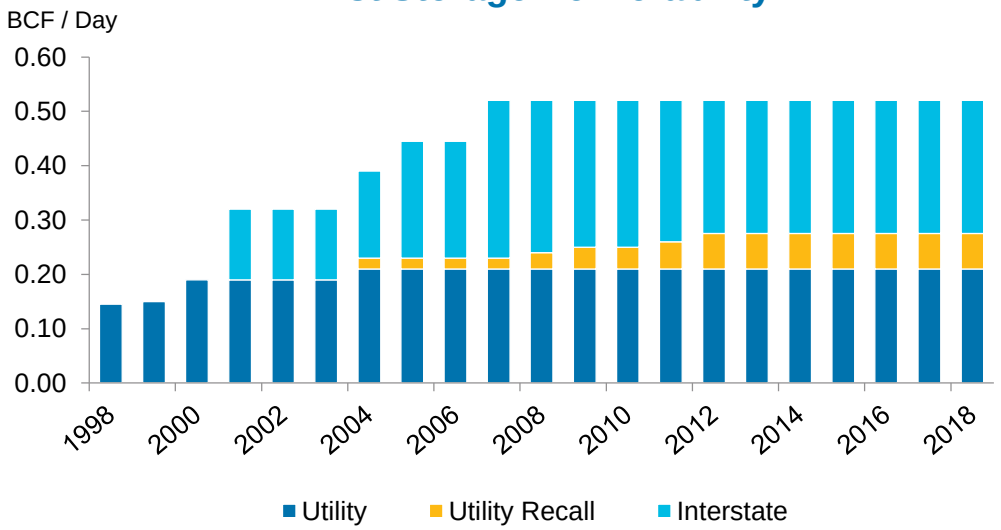
Unique, Valuable Asset

- Limited storage options in Pacific Northwest
- Part of utility's diverse, reliable gas supply strategy
- Utility can recall Interstate portion for Core Utility demand
- Optimize non-utility portion and share revenues with utility customers
- 5 Bcf under long-term high-value contracts

Mist Storage Capacity

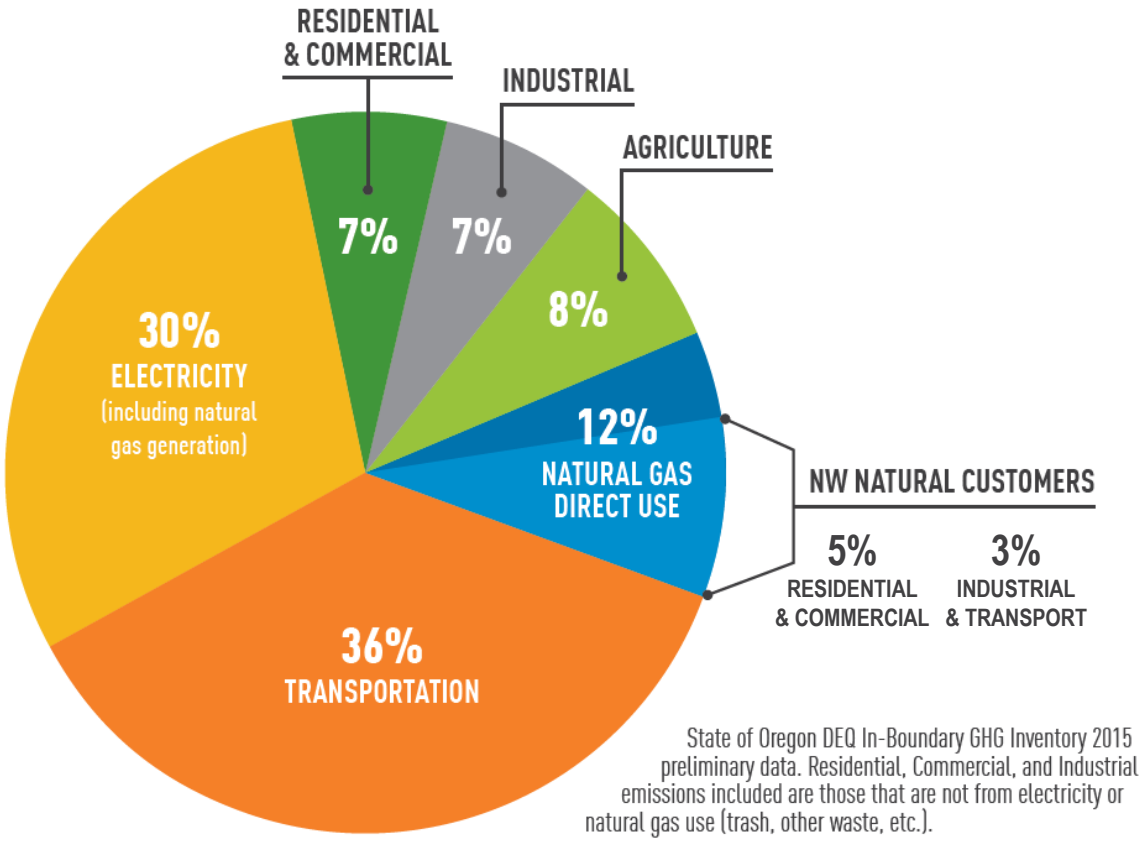


Mist Storage Deliverability



NWN SYSTEM HIGHLY EFFICIENT

Oregon's GHG Emissions



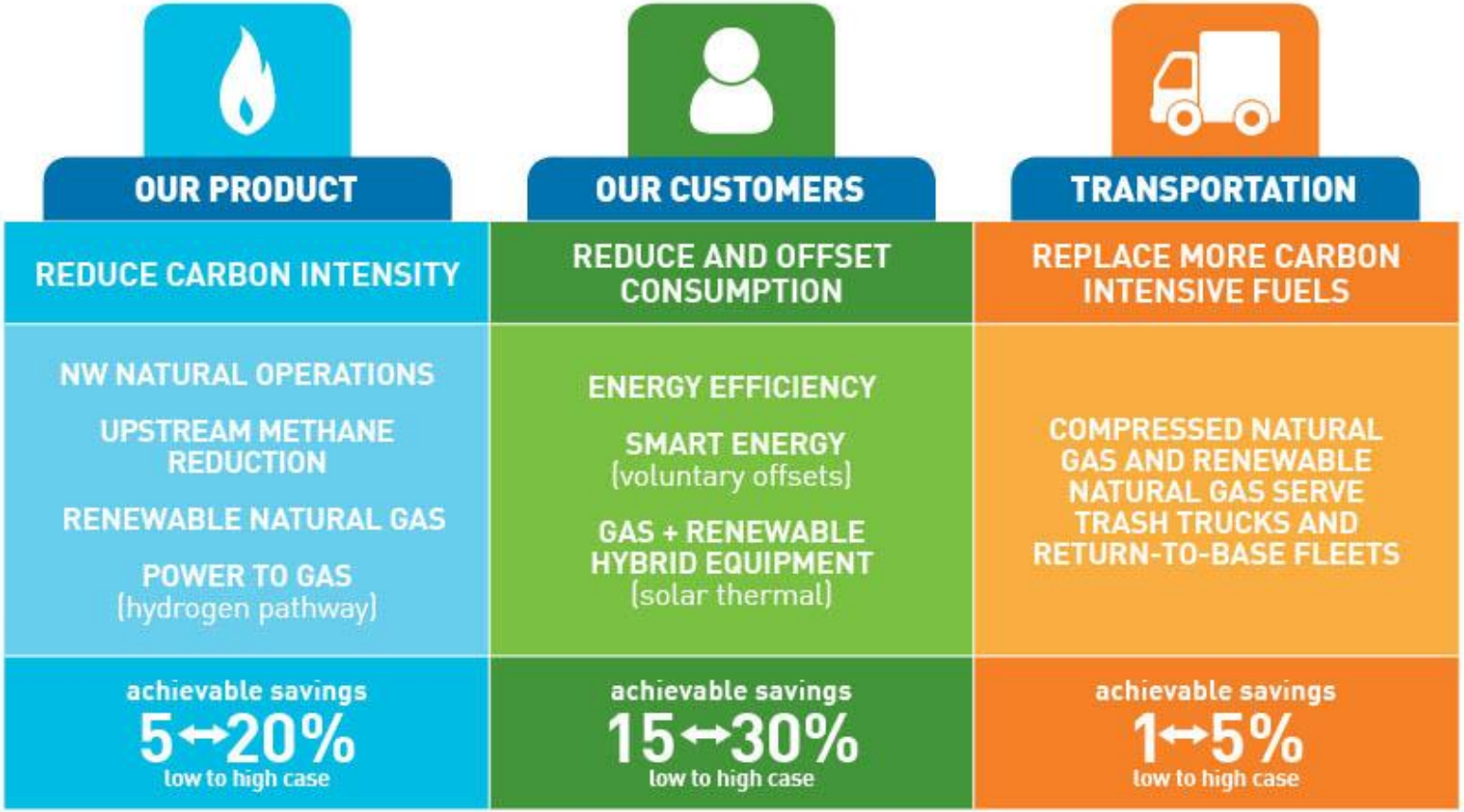
State of Oregon DEQ In-Boundary GHG Inventory 2015 preliminary data. Residential, Commercial, and Industrial emissions included are those that are not from electricity or natural gas use (trash, other waste, etc.).

NW Natural's System

- **Heats 74%** of residential square footage in the areas we serve
- **Provides 90%** of peak day energy needs for our residential space and water heat customers
- Our customers' emissions **account for just 8%** of Oregon's total carbon emissions

OUR LOW-CARBON PATHWAY

VOLUNTARY GOAL: 30% CARBON SAVINGS BY 2035



Baseline: 2015 emissions associated with customer use.

DEEP DECARBONIZATION



How does the Pacific Northwest achieve an 80% reduction in economy-wide GHG emissions by 2050 from a 1990's baseline? What pathways are possible and what are the trade offs?

Natural gas will be critical to achieving deep decarbonization

- All four separately commissioned Northwest studies show natural gas is pivotal to achieving deep decarbonization most affordably and reliably
- NW Natural commissioned a study by premier environmental consultant, E3, to analyze how to achieve the goal while also serving peak energy needs on the coldest winter days

E3 study shows direct use of gas offers a viable, pragmatic path toward 2050 targets

- Study showed that with a 25% blend of renewable natural gas, the region can achieve deep decarbonization more affordably by using the existing gas system already in place
  - Recent Oregon Department of Energy study identified nearly 50 Bcf of RNG technical potential
  - Assumes commercialization of gas heat pumps
- Full electrification of heating would require:
  - Perfect adoption and proper installation of "cold climate" heat pumps in 2 million existing homes and businesses
  - The equivalent energy of 38 new large gas-fired peaker plants to serve 17 Gigawatts of new electric winter load
  - At an estimated incremental cost that grows to $3 billion more annually by 2050
  - Other electric scenario with more typical heat pump installations had an estimated incremental cost of $9.5 billion annually

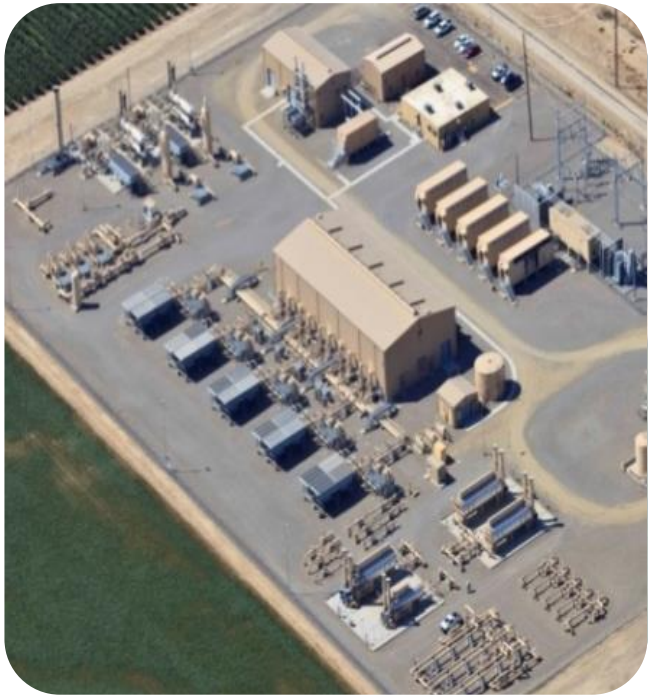
GILL RANCH STORAGE

Update

- Determined Gill Ranch is no longer central to our long-term regulated growth strategy
- At Dec. 31, 2017 recognized non-cash impairment of $193 million pre-tax ($142 million after-tax)
- On June 20, 2018 signed a purchase and sale agreement to sell Gill Ranch
- Expect transaction to close within 12 months of signing and in 2019
- Gill Ranch presented in discontinued operations in financial statements beginning Q2 2018. Gas storage segment no longer disclosed as it does not meet requirements for segment disclosure

Background

- NW Natural owns 15 Bcf or 75% of the 20 Bcf Gill Ranch storage facility near Fresno, CA. PG&E owns the remaining 5 Bcf or 25% of the Gill Ranch facility
- California storage challenged by low market prices and low price volatility due to abundant supply of natural gas and storage facilities in region



POTENTIAL REGIONAL PIPELINE EXPANSION

- Regional pipeline expansion opportunities
- NWN and TransCanada each own 50% of Trail West Holdings (TWH)
- TWH continues to evaluate the need for Trail West pipeline
- NWN's investment in TWH was $13.4 million at Sept. 30, 2018



GROWTH
SUSTAINABILITY
INNOVATION

NW Natural HOLDINGS™