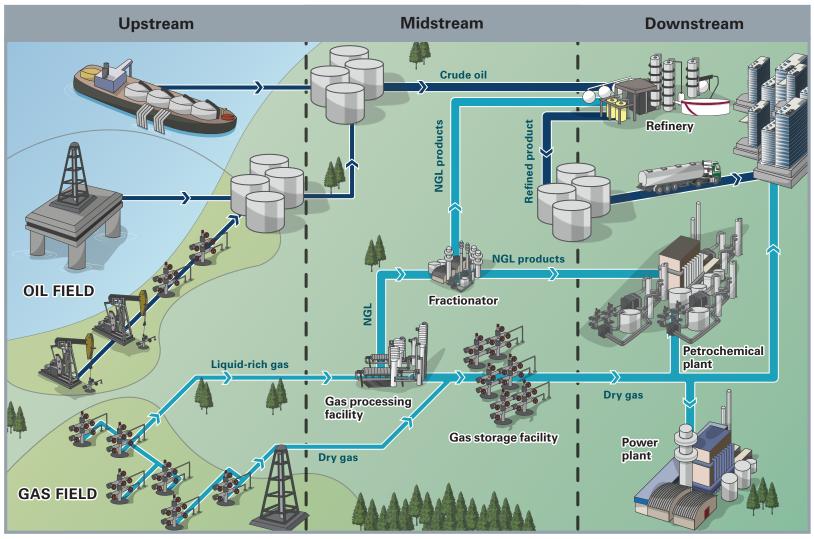


## **Pacific Region Investment Conference**

Energy update



# **Energy value chain in perspective**



Source: Tortoise



## Disruptive technology driving shale growth

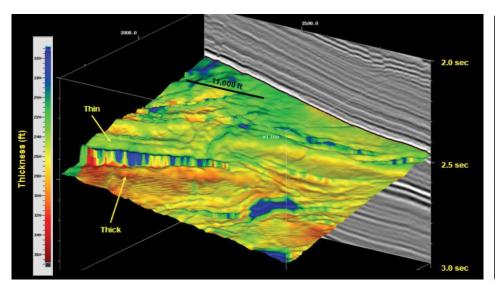
# Use of technology in the oil and gas sector has reversed a decade-long decline in domestic production

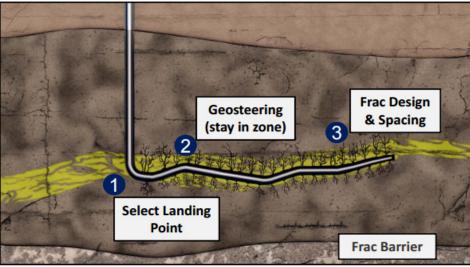
Growing North American production is driven by two processes used safely for many years

- Hydraulic fracturing
- Horizontal drilling

New technological advancements are increasing recoveries while lowering costs

- 3D reservoir modeling
- Geosteering

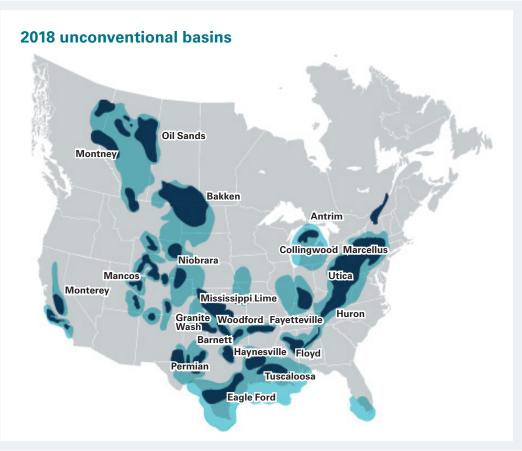






# Major unconventional basins benefiting from technology



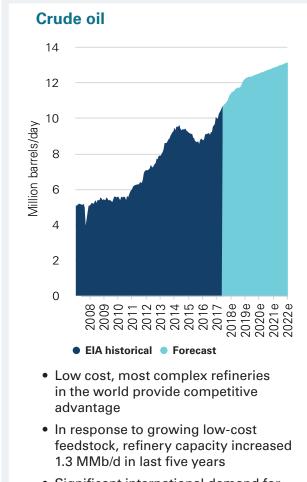


Source: Tortoise

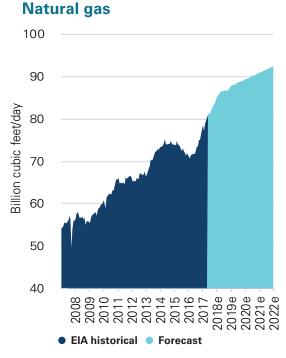


## **U.S.** production outlook

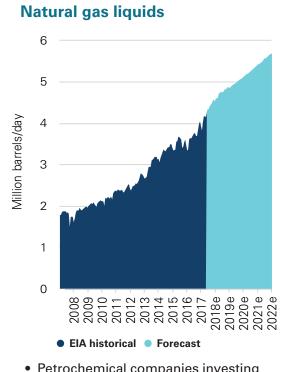
#### Production growth expected to continue at a strong pace for the next five years



 Significant international demand for U.S. light, sweet crude oil



- Power plants switching from coal to natural gas to reduce carbon footprints
- Industrial activity, where natural gas is a key input
- Growing exports of natural gas to Mexico and LNG (liquefied natural gas) to rest of world



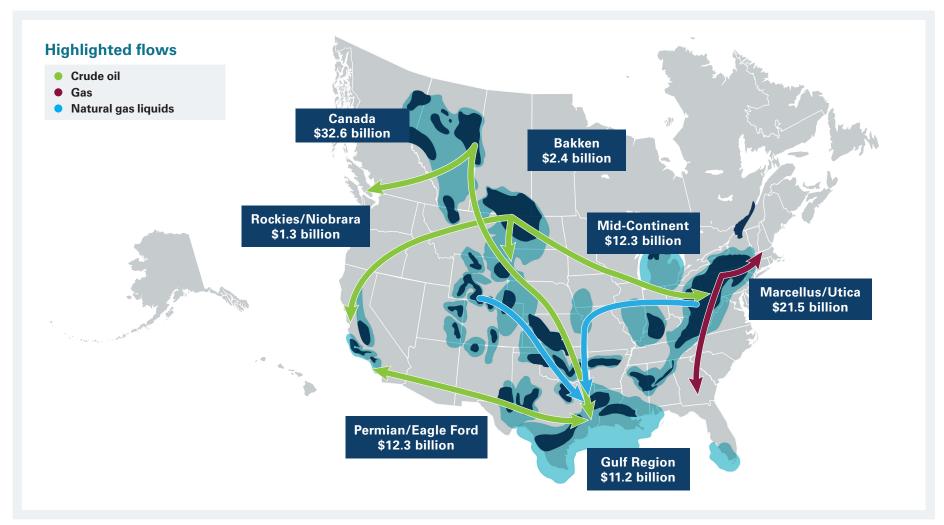
- Petrochemical companies investing \$164B domestically to take advantage of low-cost feedstock
- Exports of ethane, propane, butanes and natural gasoline are growing to rest of world due to competitive cost

Source: BTU Analytics, EIA STEO (July 2018), EPD, IHS, Tortoise estimates, Tudor Pickering Holt and Wood Mackenzie as of 6/30/2018 The projections on this page are based on industry estimates and are no guarantee of future outcomes.



## Infrastructure growth initiatives 2018e - 2020e

## **Approximately \$120 billion in pipeline and related projects**

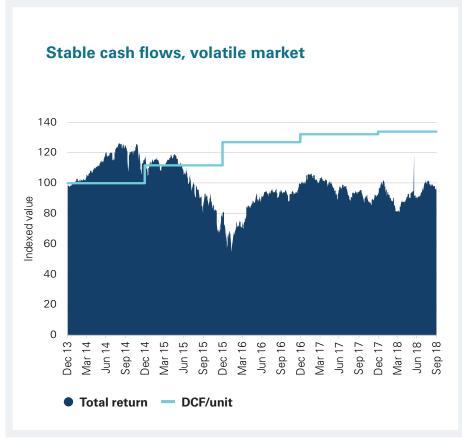


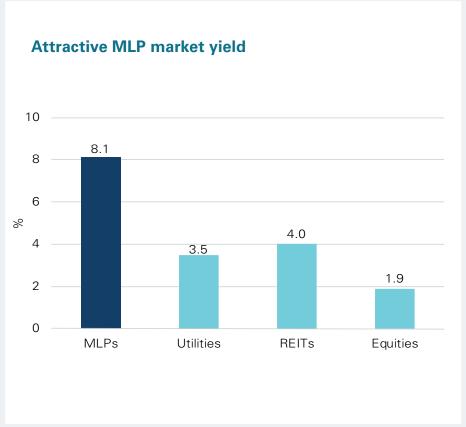
Source: company filings and Tortoise estimates as of 6/30/2018

Note: Total capital investment also includes miscellaneous other projects totaling approximately \$27 billion. The projections on this page are based on industry estimates and are no guarantee of future outcomes.



## **Total return drivers**





Source: Bloomberg, NAREIT (REITs yield) and Tortoise as of 9/30/2018

Total return = Tortoise Midstream MLP Index®. DCF = distributable cash flow. MLPs = Tortoise MLP Index®. Utilities = S&P Utilities Select Sector Index. REITs = FTSE NAREIT All Equity REITs Index. Equities = S&P 500® Index. It is not possible to invest directly in an index. Please see important disclosures at end of presentation.

Past performance is no guarantee of future results.



## Important disclosures

This presentation contains certain forward-looking statements. These forward-looking statements include all statements regarding the intent, belief or current expectations regarding matters covered and all statements which are not statements of historical fact. The forward-looking statements involve known and unknown risk, uncertainties, contingencies and other factors, many of which are beyond our control. Since these factors can cause results, performance and achievements to differ materially from those discussed in the presentation, you are cautioned not to place undue reliance on the forward-looking statements. This presentation is updated through September 30, 2018 unless otherwise noted.

Past performance is no guarantee of future results.





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