

Energy Storage Ventures



Project Update

ESV Corporate Structure –Summary

- **Energy Storage Ventures LLC** (“ESV”, or the “HoldCo”) was formed in 2016 as the vehicle to own project companies that develop, construct and operate bulk storage facilities in the Salina bedded salt formation in the Ohio River Valley.
- ESV wholly owns two subsidiaries that currently engage in the development of NGL storage facilities: (i) **Mountaineer NGL Storage LLC** (“Mountaineer”); and (ii) **Powhatan Salt Company LLC** (“Powhatan”)
- Mountaineer and Powhatan are concurrently developing a 200 acre site along the Ohio River in Monroe County, Ohio
- Mountaineer will be responsible for developing, constructing and operating facilities related to an NGL storage project of up to 3.25 million barrels, including terminal facilities, brine ponds and other surface infrastructure
- Powhatan will be responsible for developing, constructing and operating solution mining facilities that will include drilling wells, fresh water intake and injection equipment, solution mining in the Salina salt formation, the withdraw and transport of brine for feedstock to a Chlor Alkali plant
- Mountaineer and Powhatan are collectively referred to as the “**Project**” or “**Projects**”

ESV – Project Background

- Over a million bbls/day of NGL processing in the Marcellus/Utica developed over the last 8 years, expected to grow to more than 1.6 by 2022
- Solving the transportation logistics challenges tied to any new large scale production basin (e.g., truck, rail, pipeline, storage)
- The traditional role and importance of storage (load management)
 - ❖ A buffer for the regional supply and demand imbalance
 - ❖ Providing an alternative to higher-cost transportation options
 - ❖ Operational to local markets
 - ❖ Load balancing tool for commodity shippers
- Liquid storage in salt is the most common form of bulk storage used in the US today for several reasons:
 - ❖ Fewer environmental impacts associated with salt storage
 - ❖ It continues to be the safest way to store hydrocarbons
 - ❖ Less expensive to construct on a per barrel basis

ESV – Project Background

- ESV's storage project contemplates the creation of bulk NGL storage in new caverns to be developed in the Salina bedded salt formation.
- The Salina salt formation in the area is a relatively thin layer of salt located ~ 6300' to 6700 feet below the surface and is fairly homogenous making the actual site for the Project less of an issue.
- The Salina formation has been used for liquids storage in other parts of the country (e.g., Bath and Seneca New York).
- Challenges associated with storage in the Appalachian basins
 - ❖ Land
 - ❖ Water
 - ❖ Brine

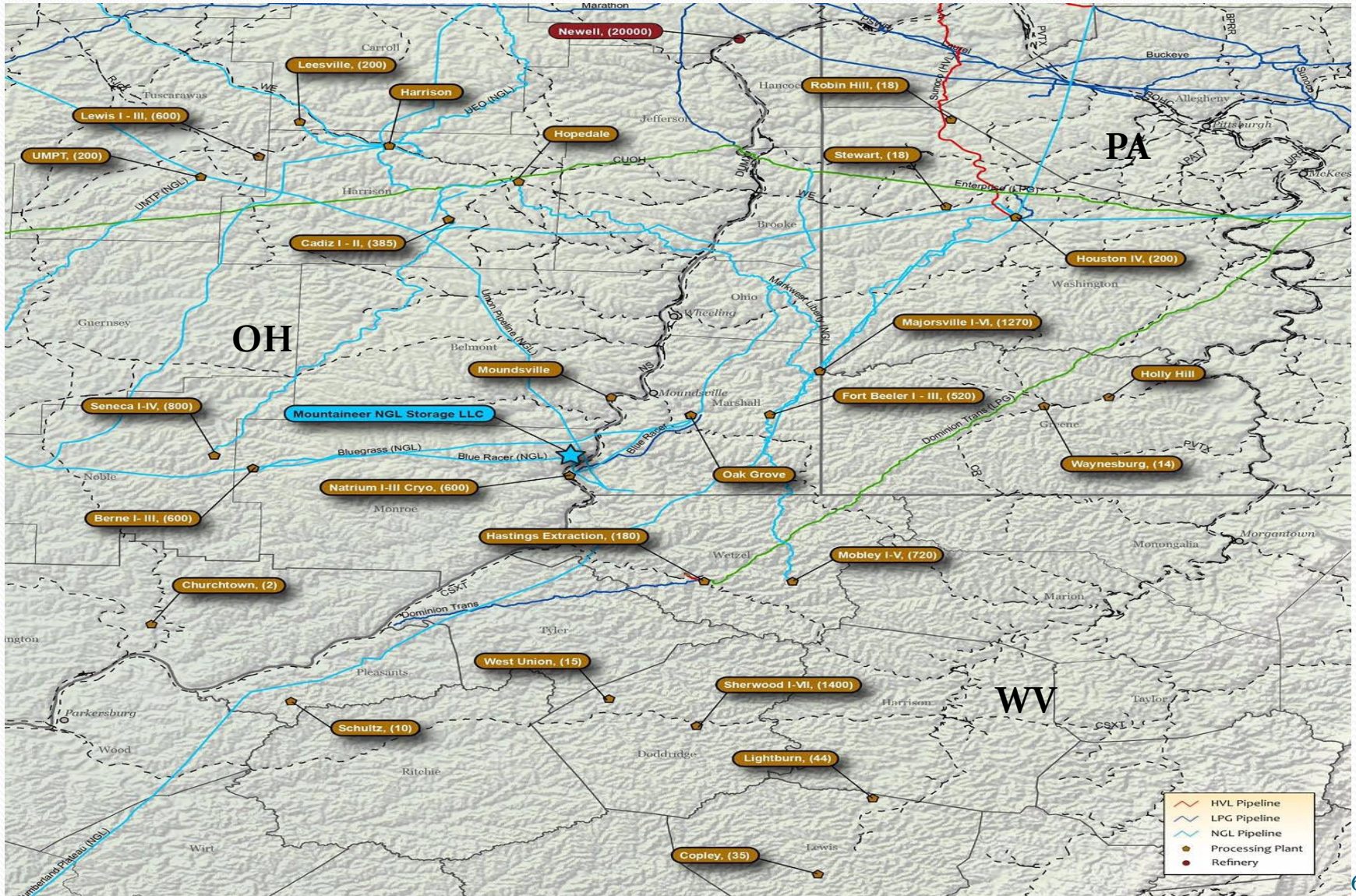
ESV – Project Status Report

The Projects has been developed in “Phases” in order to appropriately de-risk construction and operational concerns:

- **Pre-development:** This “Control Phase” was completed in July of 2016 and included certain critical action items necessary to advance the Project:
 1. Secured a brine solution
 2. Secured a land & mineral option
 3. Completed Phase 2 Environmental studies
 4. Completed 48 geotechnical borings of the site to validate construction stability and suitability
 5. Completed 2 market studies

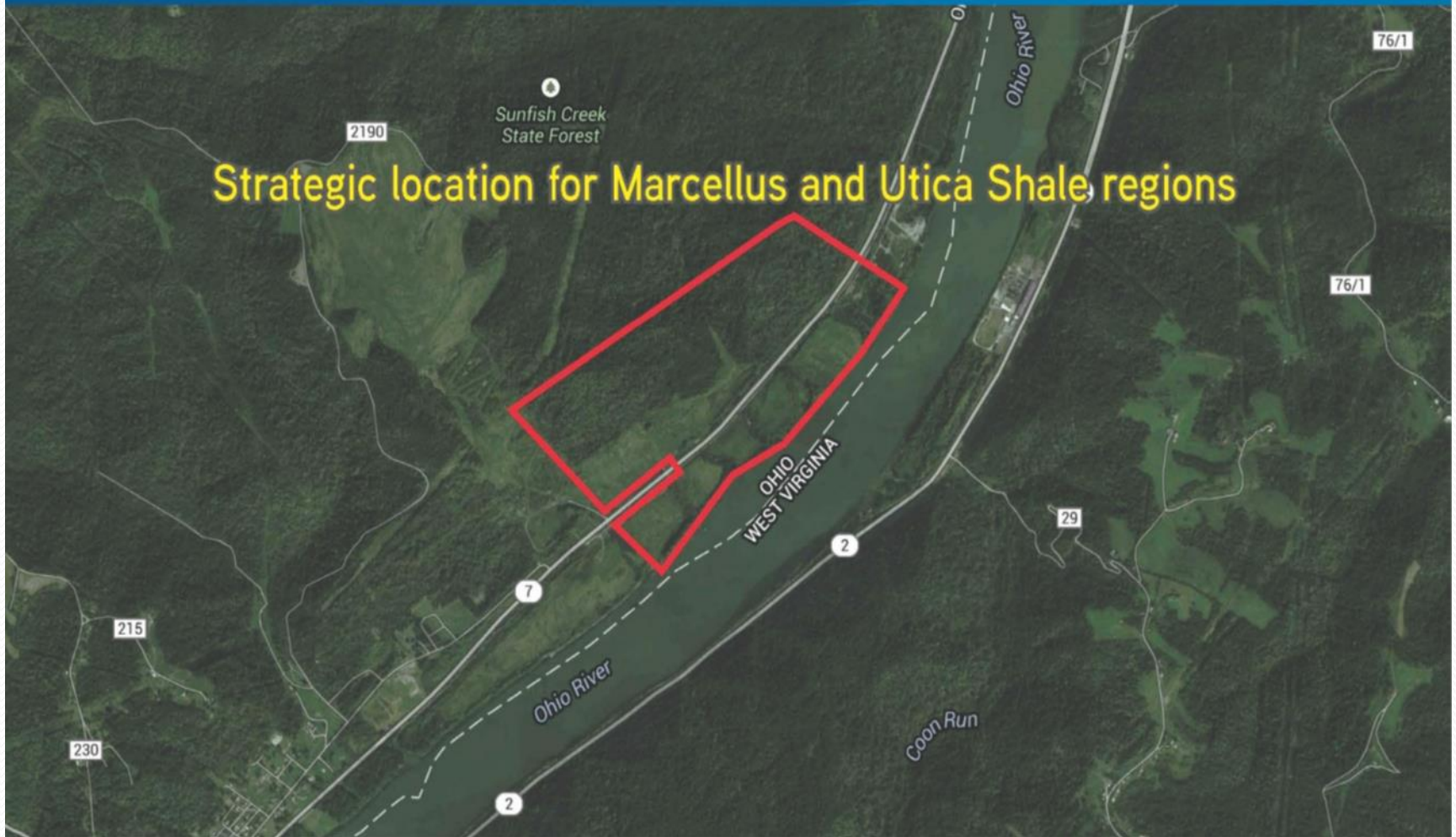
- **Development:** The “Technical and Commercial Validation Phase” was completed in December of 2016, with critical action items that included:
 1. Completed a 6,800’ test well (confirm & validate the salt for storage)
 2. Completed salt core & rock mechanics analysis of the Salina Salt formation
 3. Shot a 5 mile 3-D seismic grid (alleviate any faulting concerns)
 4. Completed preliminary design and engineering on most of the project
 5. Filed all state & local permits for both operation companies.

ESV - Project Location



ESV - Project Location

MONROE COUNTY, OH



ESV – Rendition of the Site Layout





**Appendix I:
Equity Sponsor &
Management Bios**

Mountaineer – Equity Sponsors

WEST STREET ENERGY PARTNERS, LP

West Street Energy Partners, (“WSEP”) is a \$1.1 billion private equity fund focused on natural resources/energy investing managed by the Merchant Banking Division of Goldman, Sachs & Co. Since 1986, the Goldman Sachs Merchant Banking Division through its Principal Investment Area (“GS PIA”) and its predecessor business areas have raised 18 private equity and principal debt investment funds aggregating over \$84 billion of capital (including leverage). GS PIA is one of the leading private equity investors in the world and focuses on high quality companies with strong management in order to fund acquisition or expansion across a range of industries and geographies. As an investor and partner, we would bring access to all of the firm’s global resources to assist in completing the transaction and to aid the Company in achieving its strategic vision and financial objectives.

Since 1998, the Merchant Banking Division has invested over \$9.6 billion in 30 companies in the natural resources space. Our investments include, but are not limited to Kinder Morgan (one of the largest energy infrastructure companies in North America), CVR Energy (U.S. mid-continent based oil refinery), Cobalt International Energy (Deepwater Gulf of Mexico and West Africa oil exploration), Kenan Advantage Group (transportation and supply chain logistics services to the petroleum and specialty products industries), and EdgeMarc (a start-up shale exploration company operating in the Marcellus and Utica). Through our experience investing in and advising leading natural resources businesses, we bring a large network and a number of significant industry relationships to the table both in the U.S. and internationally.

MNGLS – Management

DAVID HOOKER – PRESIDENT

MATT HIGHAM – CFO

THOMAS J EYERMANN – SVP SUBSURFACE ENGINEERING

BARRY S CIGICH – SVP ENGINEERING AND OPERATIONS

TIM HANLEY – BUSINESS DEVELOPMENT

RODNEY YATES – EH&S

ESV – Third Party Validation

ESV has engaged numerous third-party advisors & contractors, including the following to support its technical and commercial validation of the Project:

- Civil and Engineering Consultants LLC (www.cecinc.com) - Project permit and engineering consultant
- Spartan Engineering (www.spartan-eng.com) - Project engineering consultant
- Genscape (www.genscape.com) - Project Market Consultant
- Sabine Storage & Operations, Inc. (www.sabinestorage.com) - Project development, maintenance, and operational plan consultant
- Respec Consulting (www.respec.com) - Project technical review consultant
- Geokinetics (www.geokinetics.com) - Geophysical services consultant
- Tecnon Oricem (www.orbichem.com) - Project market consultant (Chlor Alkali specialist)
- McGriff, Seibels & Williams (www.mcgriff.com) - Project insurance & risk management consultant
- Environmental Risk Management (www.erm.com) - Project environmental, health, risk and social consulting services
- Fidelity National Title (www.fntic.com) - Project title insurance underwriter