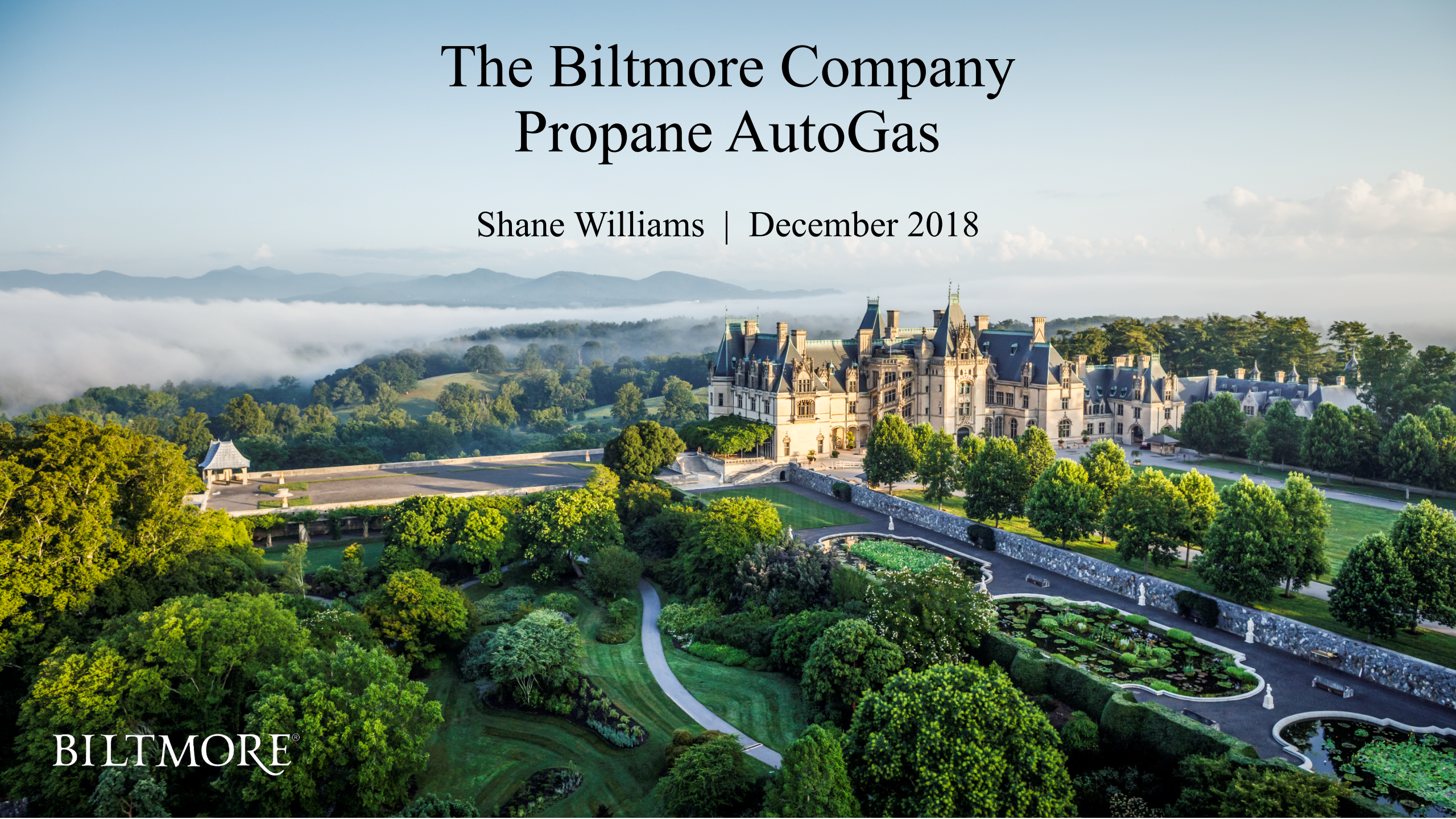


The Biltmore Company Propane AutoGas

Shane Williams | December 2018



BILTMORE®

Estate Propane AutoGas History

- 2012 Installation of Alliance Autogas propane filling station.



Staubli Nozzle

- 2015 upgrade/installation of the Staubli nozzle.
- Increased confidence and efficiency.



Vehicles

- 2012 first conversions of two new Ford E-450 20pass. ADA lodging shuttles bi-fuel.
- 2013 additional conversions of four P&T shuttles and two Company Police vehicles. Mobile Source Emission Reduction Grant (MSEREG).
- 2014 conversion of two new Diamond body 25 pass shuttle buses.
- 2015 purchase of five shuttles that were converted.
- Retired propane shuttles three early 2018.

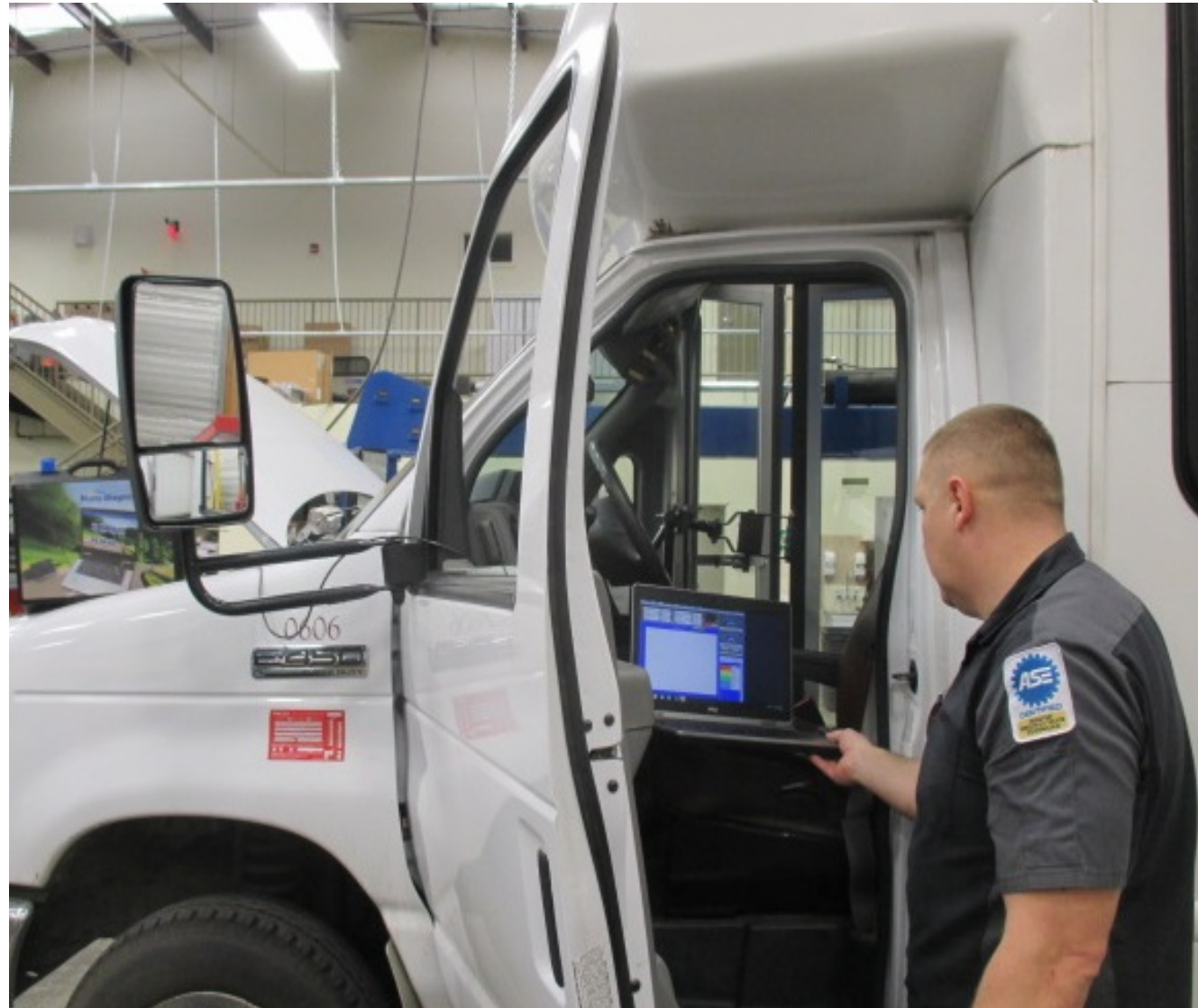
Current State

- 12 total converted vehicles ten shuttle buses and two Police vehicles.
- Clean fuel shuttle - powered by propane.
- Guest interaction and questions.



Shop Operations

- Technician training.
- Prins Diagnostic Tool and Software.
- In house repairs and maintenance.
- Online parts ordering.
- Tech Support/Information Bulletin's



Financials

- 163,380 total gallons of propane used since 2012.
- Total greenhouse gas emissions reduced 43.9 tons.
- Calendar year 2017: P&T estimated 67,500 guest transported, displacing 33,750 vehicles with an average 20mpg displacing 286,875 miles and 14,343.75gals.
- \$166,400 total fuel cost savings since 2012.

Looking Forward

Additional area's of opportunity

- Mail services.
- Grounds Operations.
- I.T.
- Engineering.
- Possibility of converting Trolleys.

Ongoing training and education

- Fleet Staff
- Parking and Transportation



THANK YOU

Questions?



BILTMORE®