

# FUEL: THE COST OF DOING BUSINESS DOESN'T NEED TO BE SO EXPENSIVE

#### AGENDA – FUEL & DRIVER COACHING PROGRAMS

- TANKER TRUCKS & FUEL ECONOMY
- VNOMICS BACKGROUND
- CUSTOMER SUCCESS THROUGH
   FUEL SAVINGS OPPORTUNTIES
- COMMUNICATE, COORDINATE,

- ACTIVATE, ELEVATE
- SUCCESSES TO DATE
- TAKEAWAYS
- Q&A



#### VNOMICS TANK TRUCK PARTNERS











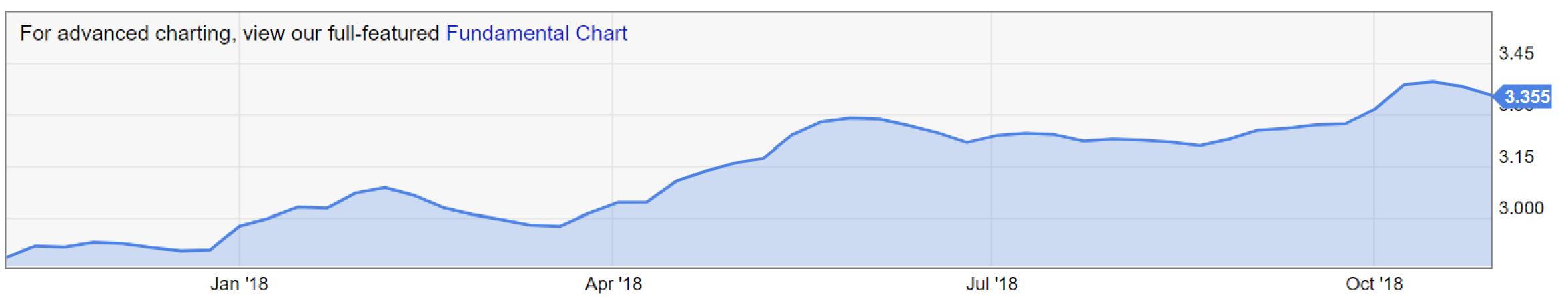


#### US RETAIL DIESEL PRICE

Table 8: Average Marginal Costs per Mile, 2009-2017

rable of Attorage marginal evets per mile, 2000 2011									
Motor Carrier Costs	2009	2010	2011	2012	2013	2014	2015	2016	2017
Vehicle-based									
Fuel Costs	\$0.405	\$0.486	\$0.590	\$0.641	\$0.645	\$0.583	\$0.403	\$0.336	\$0.368
Truck/Trailer Lease or Purchase Payments	\$0.257	\$0.184	\$0.189	\$0.174	\$0.163	\$0.215	\$0.230	\$0.255	\$0.264
Repair & Maintenance	\$0.123	\$0.124	\$0.152	\$0.138	\$0.148	\$0.158	\$0.156	\$0.166	\$0.167
Truck Insurance Premiums	\$0.054	\$0.059	\$0.067	\$0.063	\$0.064	\$0.071	\$0.074	\$0.075	\$0.075
Permits and Licenses	\$0.029	\$0.040	\$0.038	\$0.022	\$0.026	\$0.019	\$0.019	\$0.022	\$0.023
Tires	\$0.029	\$0.035	\$0.042	\$0.044	\$0.041	\$0.044	\$0.043	\$0.035	\$0.038
Tolls	\$0.024	\$0.012	\$0.017	\$0.019	\$0.019	\$0.023	\$0.020	\$0.024	\$0.027
Driver-based									
Driver Wages	\$0.403	\$0.446	\$0.460	\$0.417	\$0.440	\$0.462	\$0.499	\$0.523	\$0.557
Driver Benefits	\$0.128	\$0.162	\$0.151	\$0.116	\$0.129	\$0.129	\$0.131	\$0.155	\$0.172
TOTAL	\$1.451	\$1.548	\$1.706	\$1.633	\$1.676	\$1.703	\$1.575	\$1.592	\$1.691



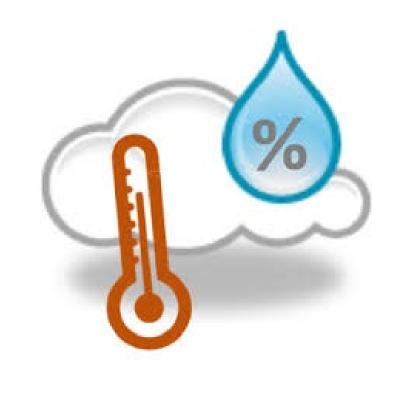




#### FUEL ECONOMY FACTORS

Load (tonnage)











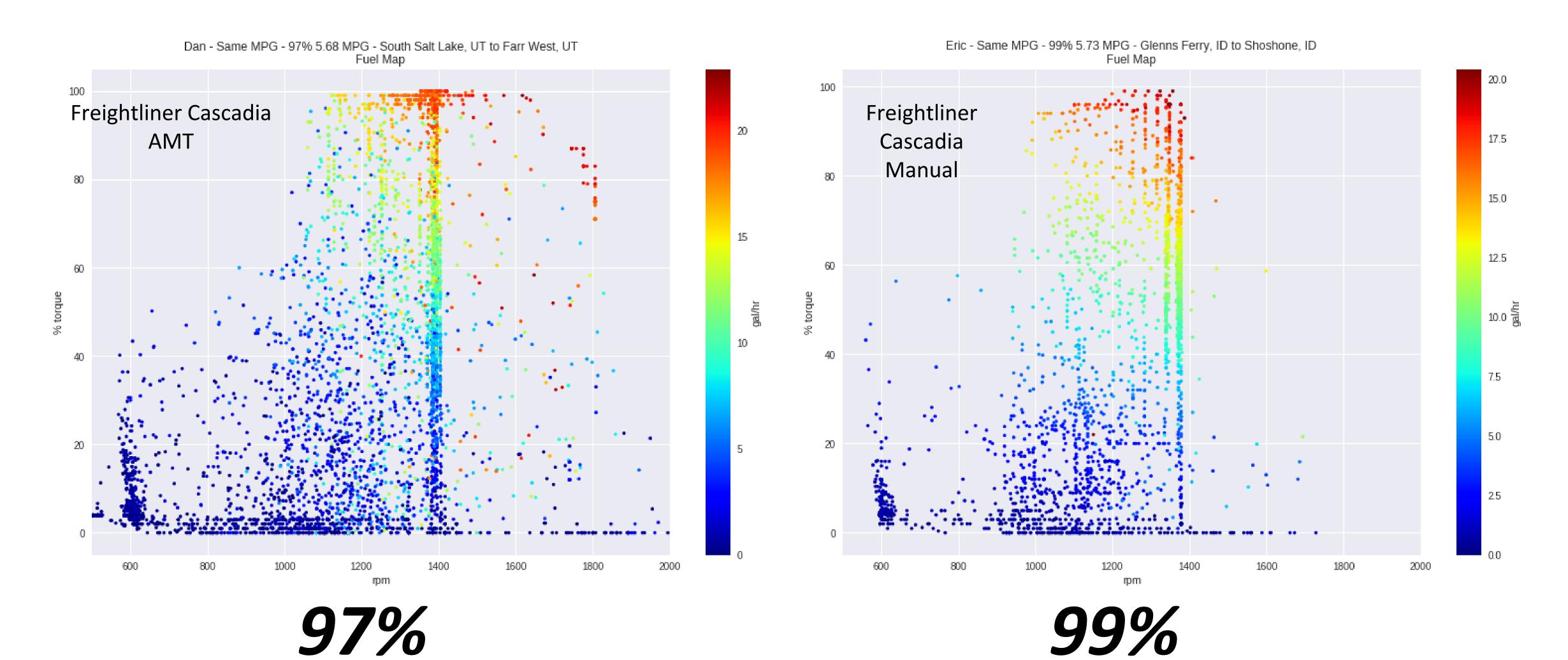
(engine & drivetrain)

Routing





# ADVANCED POWER/DRIVETRAIN SYSTEMS





### KEY TO PERFORMANCE AND EFFICIENCY



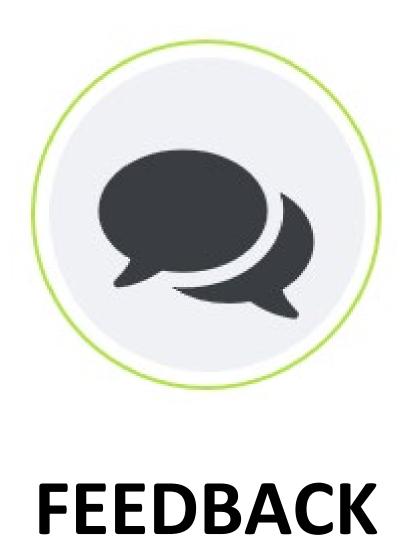




# **TAKEAWAYS**

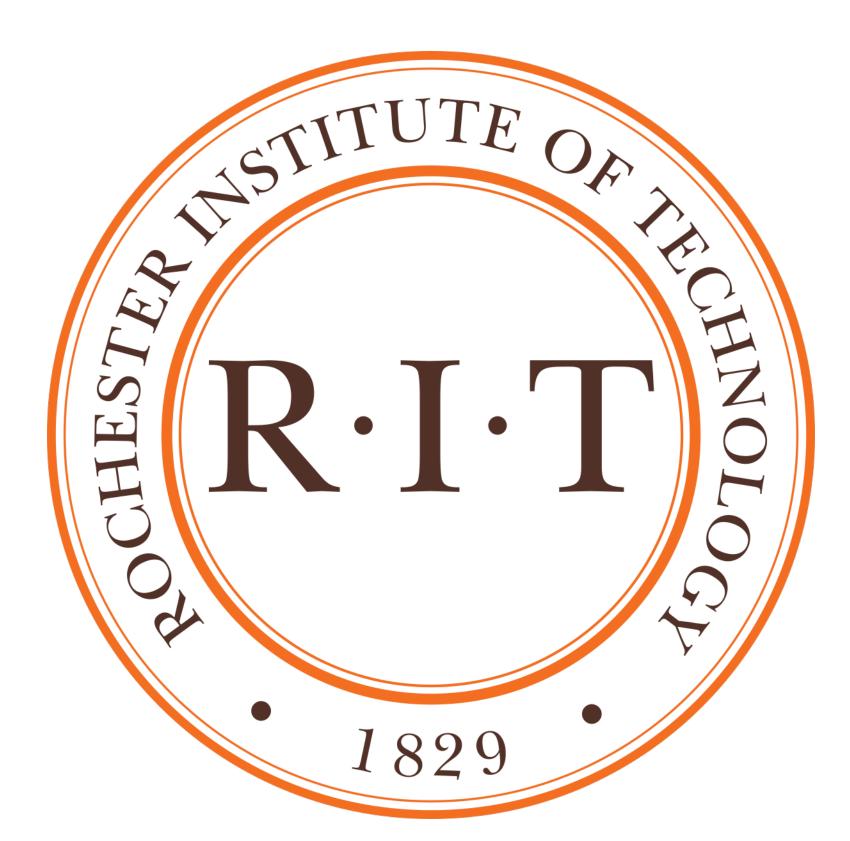
















#### THE DIGITAL TWIN SYSTEM CONTEXT

# A specific truck



Kenworth T-680 2016 VIN = 1XKYDP9X2GJ488571

MARYLAND VIRGINIA

# A truck model



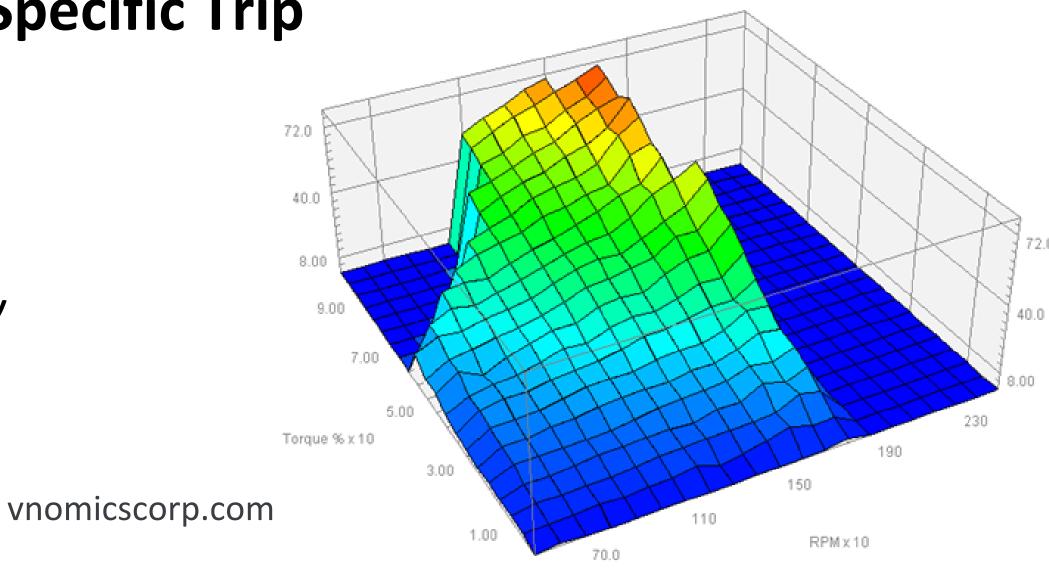
Kenworth T-680 2016 Digital Twin ID = 1XKYDP9X2GJ488571

**A Specific Trip** 

"Every truck is tracked by it's digital twin to determine whether a fleet's trucks are performing as efficiently as possible. If not, why and how to improve."

**Actual Performance** 

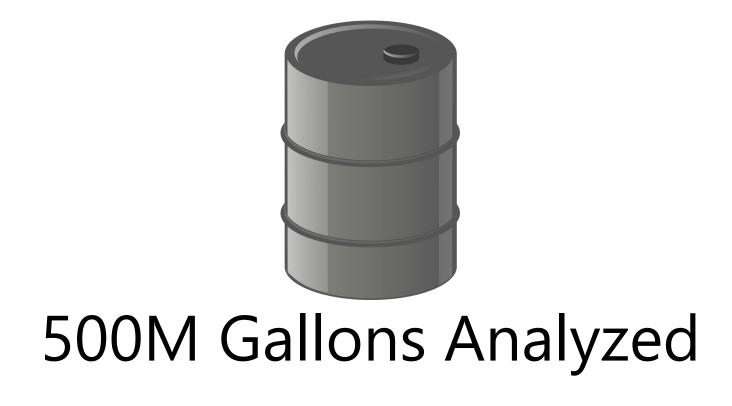
Lloyd Palum - CTO















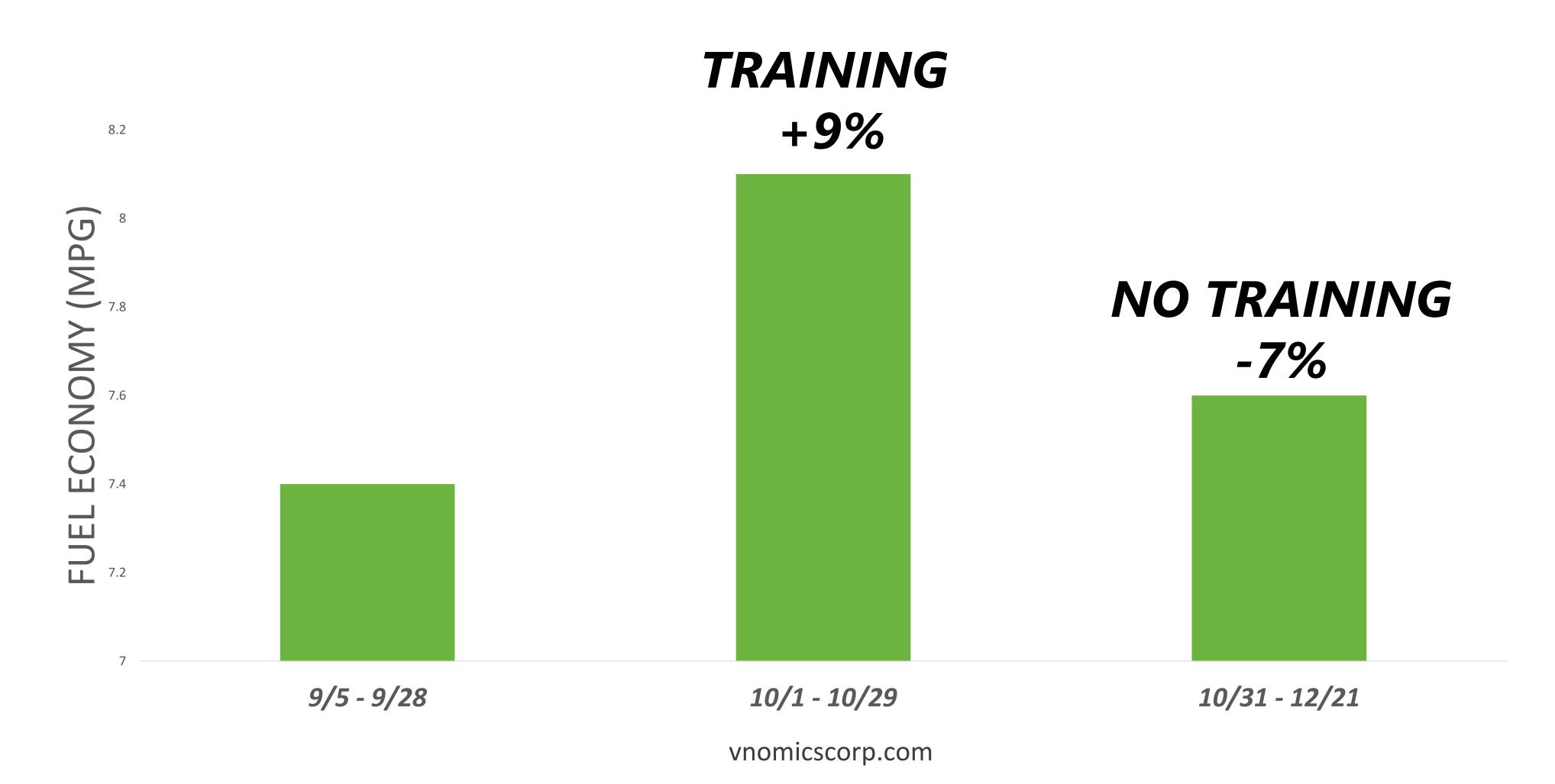


62M Gallons Saved > \$180M!



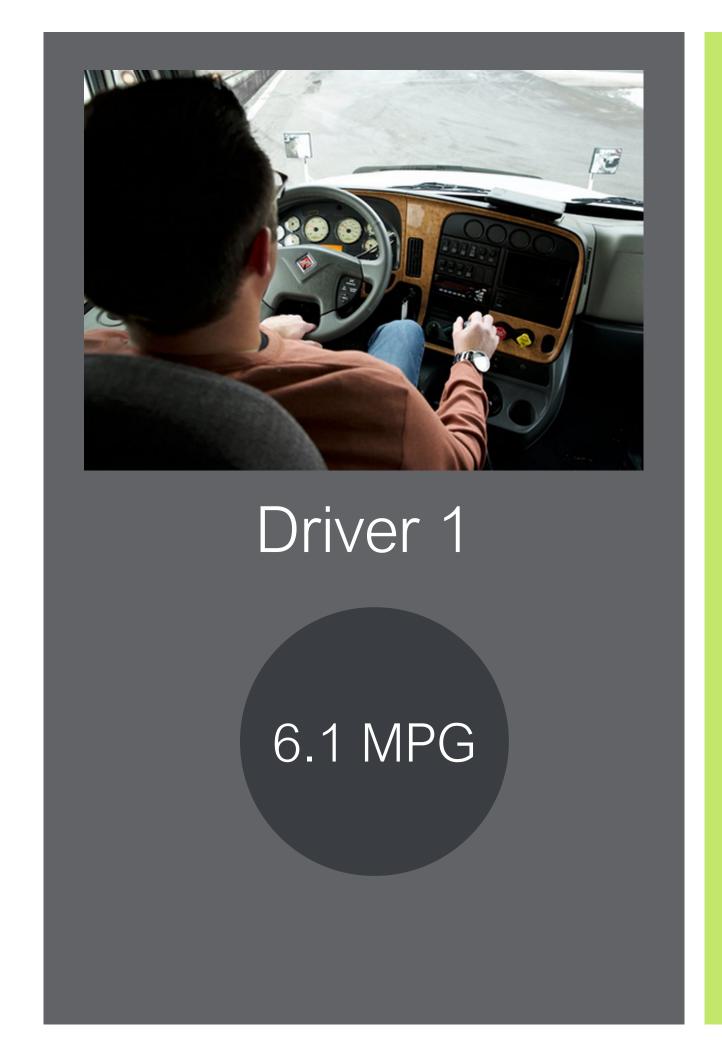
633K Tons of CO<sub>2</sub> emissions avoided Equivalent to > 300 acres of rainforest over 40 years!

#### INTERMITTENT TRAINING PROGRAMS





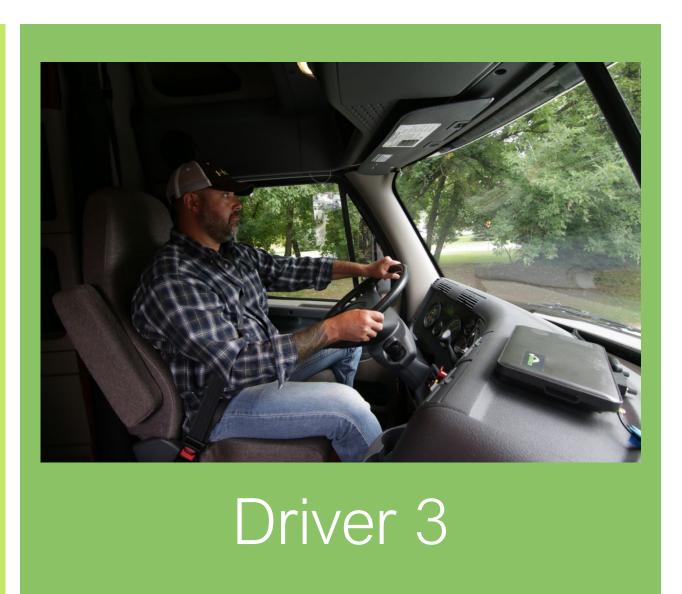
#### WHICH IS THE BEST PERFORMING DRIVER?







5.3 MPG



4.6 MPG



#### BALANCED DRIVER SCORECARDS



- Long-Haul
- Highway miles
  - Heavy load



- Local Delivery
- Local / City roads
- Food pick-up & delivery



- Construction vehicle
  - Rough terrain
  - Heavy Load

Actual 6.1 MPG
Potential 6.5 MPG

Actual 5.3 MPG Potential 5.4 MPG Actual 4.6 MPG Potential 5.2 MPG

94%

98%

88%



#### DRIVER EFFICIENCY OPPORTUNITY



vnomicscorp.com



**IDLING** 

SHIFTING







**SPEEDING** 

ACCELERATION



#### **TAKEAWAYS**



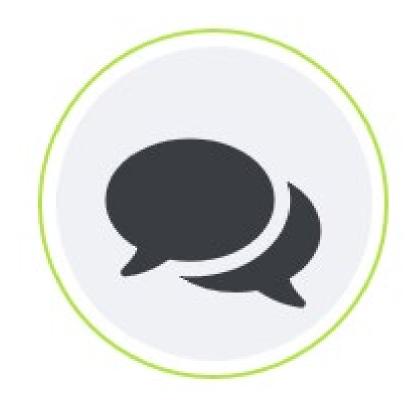
#### **PERFORMANCE METRICS**

- Fair
- Normalized
- ClearlyUnderstood



#### **REAL-TIME COACHING**

Changing or creating behaviors / habits



#### FREQUENT FEEDBACK

Today.
Tomorrow.
And every day moving forward...





#### SUCCESSES TO DATE



"In the first two months after enabling Vnomics', Terpening Trucking Co. realized a **9%** improvement in fuel economy in its fleet of over 50 trucks. Today, with 73 vehicles hauling almost one million more gallons of fuel products annually than in 2014, the average MPG improvement stands at **9.8%**."

"We piloted True Fuel and realized a **4.5%** fuel savings," - Bruce Ruppert (Director of Business Development)

"After a few weeks it **became fun for me** and I watched **my fuel** 



mileage steadily improve. It really made me retrain my brain on how to drive my truck and has become a very useful tool." - Spencer Durkee

(Driver) omicscorp.com

#### **BEST PRACTICES**

# (IN PROCESS)



#### **TAKEAWAYS**



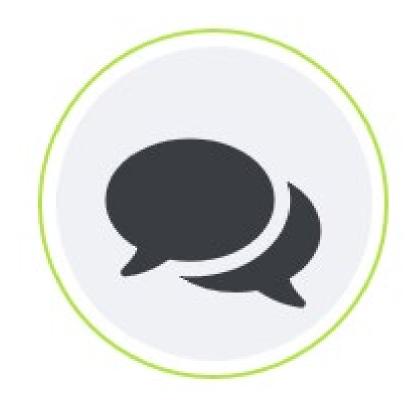
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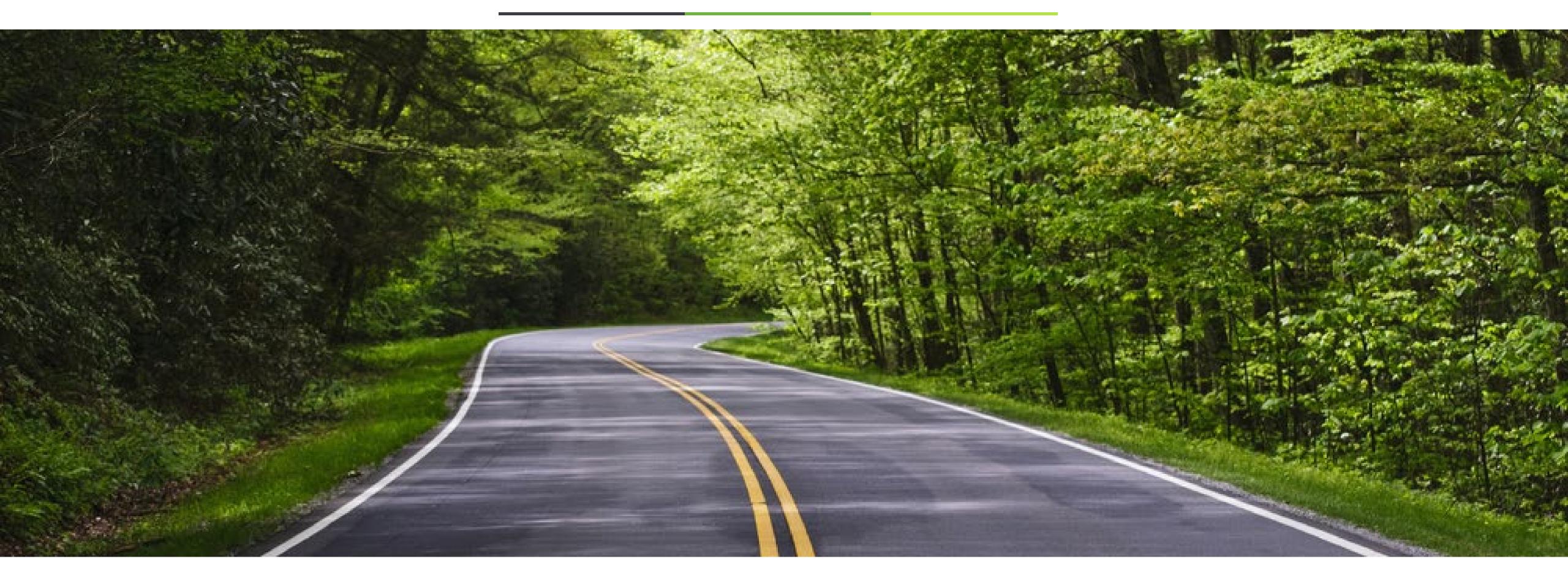


#### FREQUENT FEEDBACK

Today.
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# QUESTIONS?



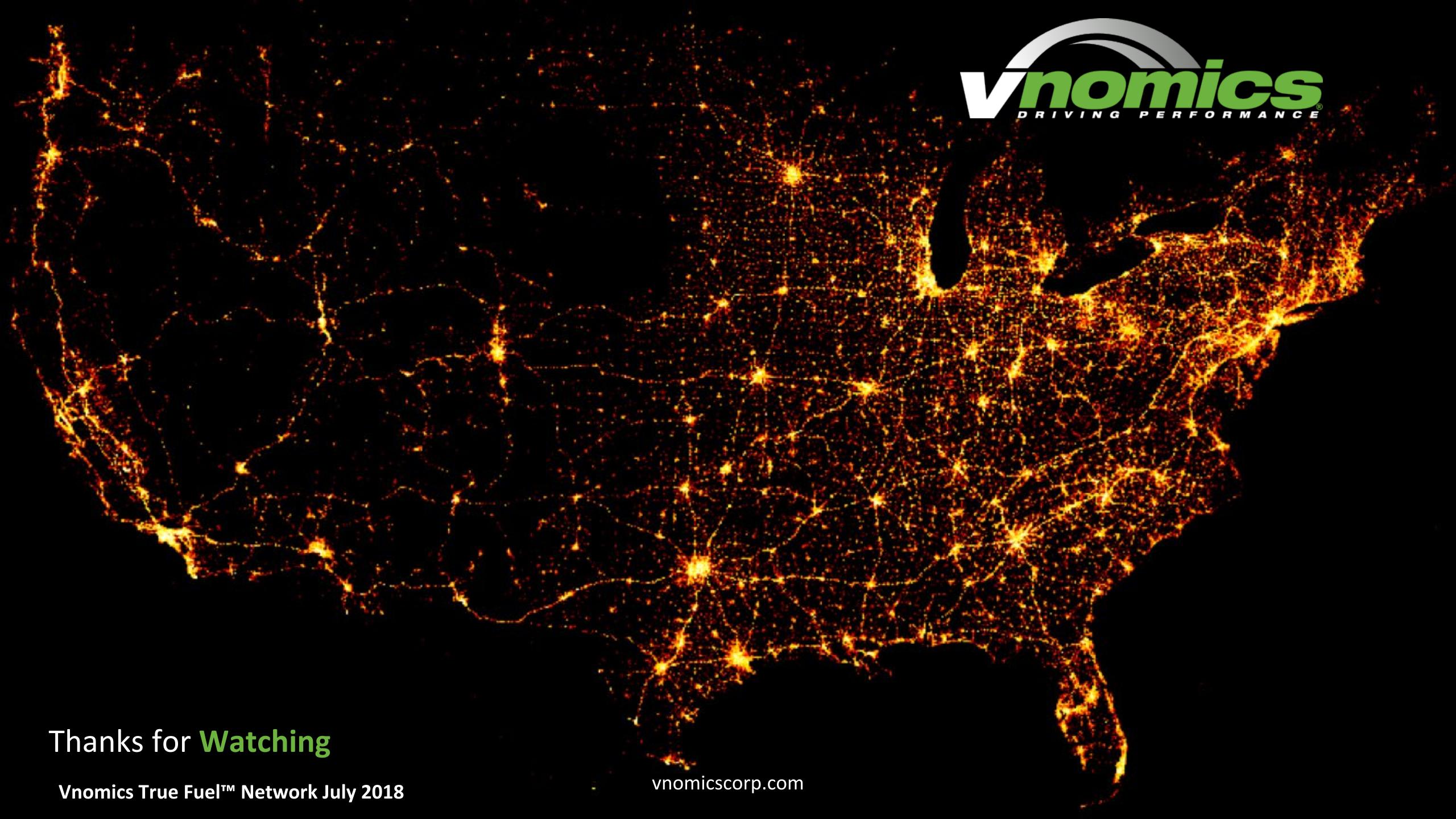
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## **BACKUP SLIDES**

