

Distributed Energy Resources



Michael Scalf
December 15, 2017

Our Mission

Energy



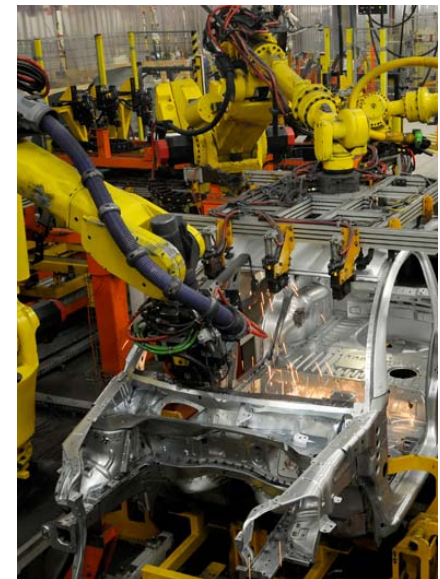
Provide affordable electric power throughout the Tennessee Valley Region

Environment



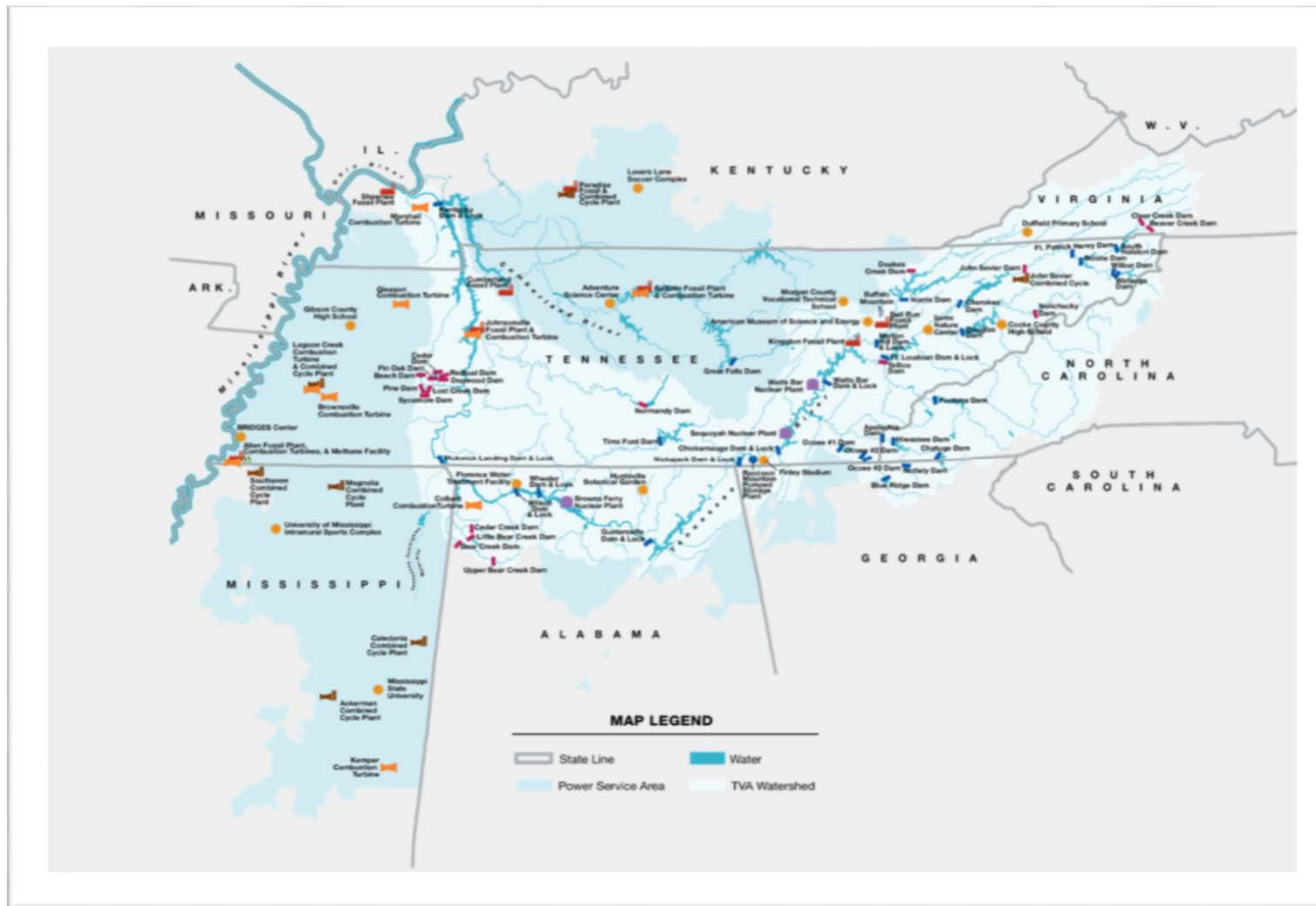
Act as a steward of the Valley's natural resources

Economic Development



Serve as a catalyst for sustainable economic development

TVA's Service Territory



Serving the People of the Valley

Energy Efficiency

381.4 GWh FY16 ERS ACHIEVEMENT

The Valley has exceeded its load management targets nine years in a row.

\$790 million

CAPITAL AVOIDANCE AT \$700 PER
KILOWATT OF INSTALLED COSTS

2.0¢ per kWh

AVERAGE LIFETIME COSTS FOR TVA'S
ENERGY EFFICIENCY PROGRAMS

1,128 MW

AVOIDED CAPACITY ADDITION

>3,120 GWh

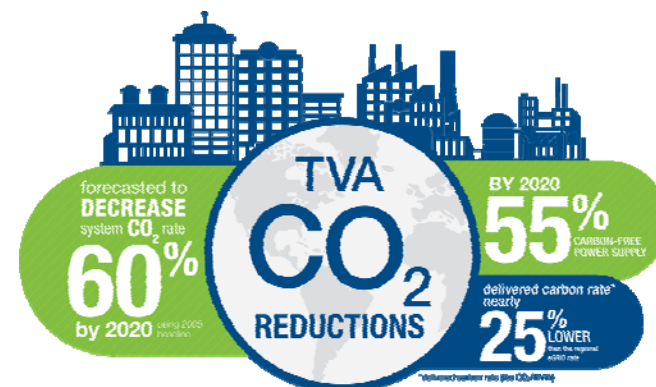
ENERGY NEEDS AVOIDED

Savings of EnergyRight Solutions programs from 2008 to 2016.

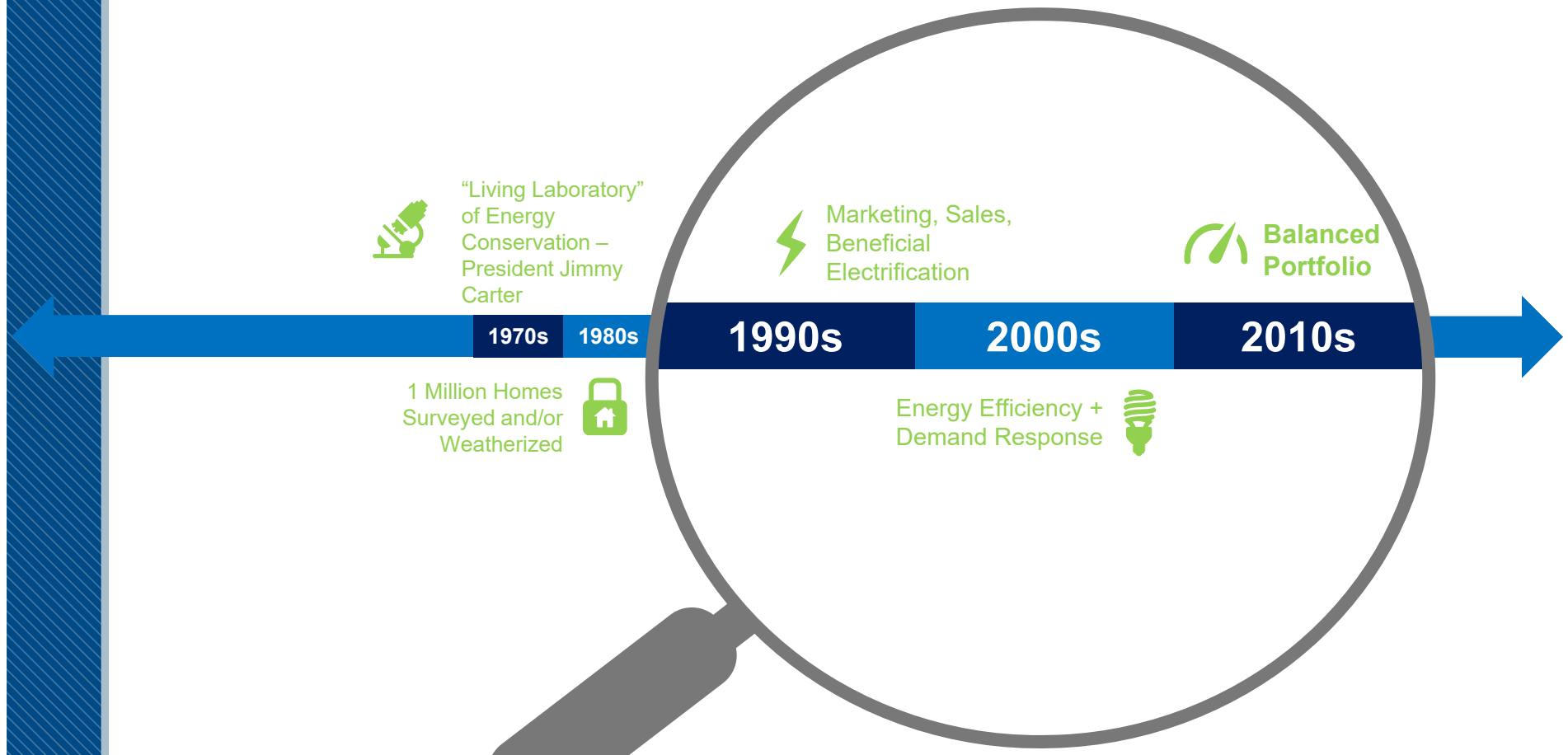
Low Rates

Top Quartile Industrial Rates

Cleaner Generation



A History of Customer Engagement

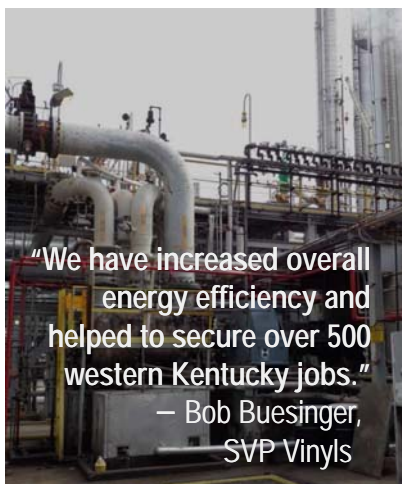


Industry programs at work



Industrial Marketing and Services Success Story

WESTLAKE CHEMICAL EQUIPMENT UPGRADE



"We have increased overall energy efficiency and helped to secure over 500 western Kentucky jobs."

— Bob Buesinger,
SVP Vinyls

73 million kWh

EXPECTED ANNUAL ENERGY SAVINGS



EnergyRight Solutions for Business + Industry Success Story

ELECTRIC FORKLIFT PROGRAM HEXPOL COMPOUNDING



88 metric tons = 18.5 passenger vehicles
off the road

ANNUAL CO₂ REDUCTION



EnergyRight Solutions for Business + Industry Success Story

PROVIDING CREATIVE SOLUTIONS TO UNIQUE FARMING PROBLEMS AT E.M. HEARD & SONS FARM



"Not only do the heating pads save piglets, we also save a tremendous amount on our energy cost."

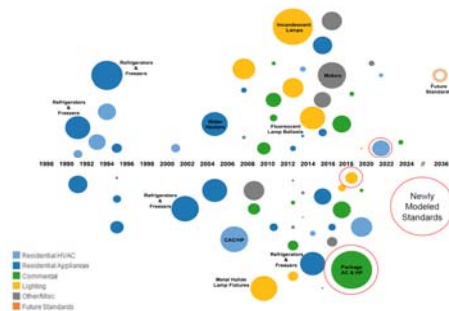
— Eric Heard,
Farm Co-Owner

225,000 kWh

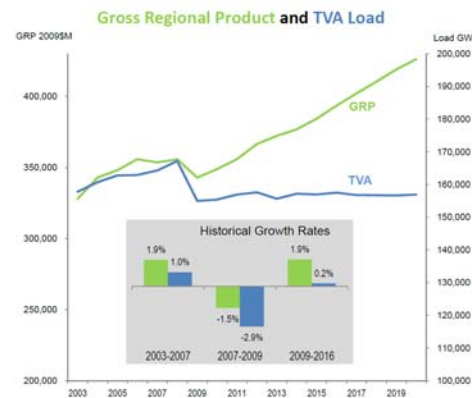
ANNUAL ENERGY SAVINGS

Consumer behaviors and preferences are changing

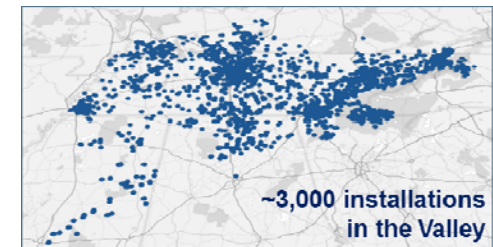
Energy efficiency
penetration continues



Load is declining despite
economic recovery



Renewables are becoming
more attractive



New installed capacity from renewable sources surpassed natural gas, nuclear power, coal, and oil combined in 2016

Companies are committing to renewables



- Committed to 100% renewable electricity
- 87 companies to date



Stated Renewable Energy Goals

- Publicly stated renewable energy goals, but not RE100 commitment



- Committed to accelerating procurement of wind and utility-scale solar energy
- 160+ members



- Goal of growing corporate demand for renewables
- 58 signatures to date

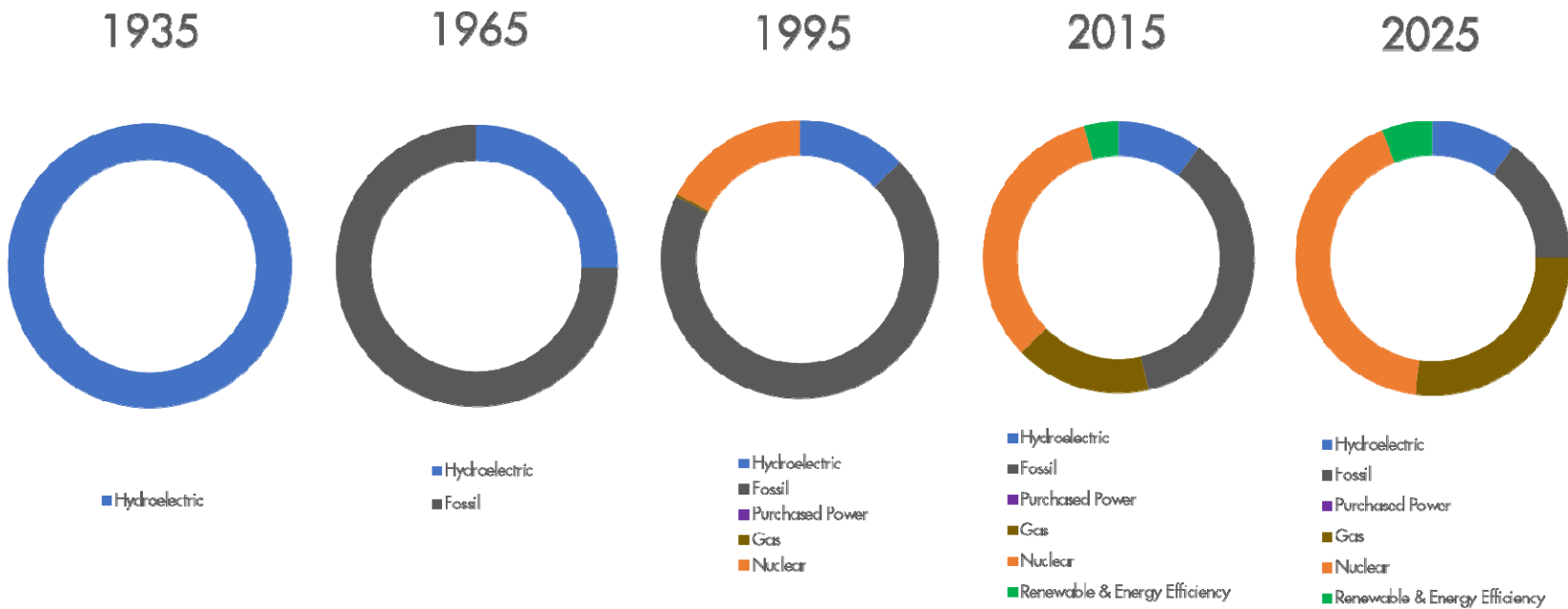


“We intend to achieve this goal, with or without you.” – RE 100 member

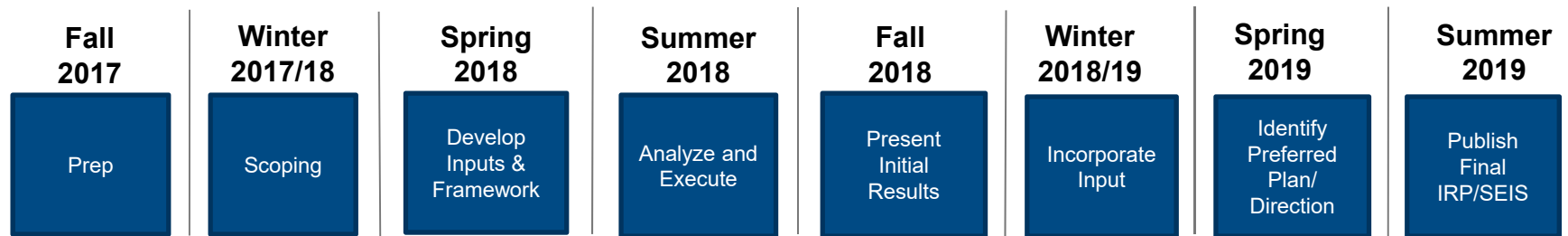
Key Themes from TVA Leaders & Local Power Company Interviews



Generation Over the Decades



Expected 2019 IRP Timeline



Distributed Energy Resources

