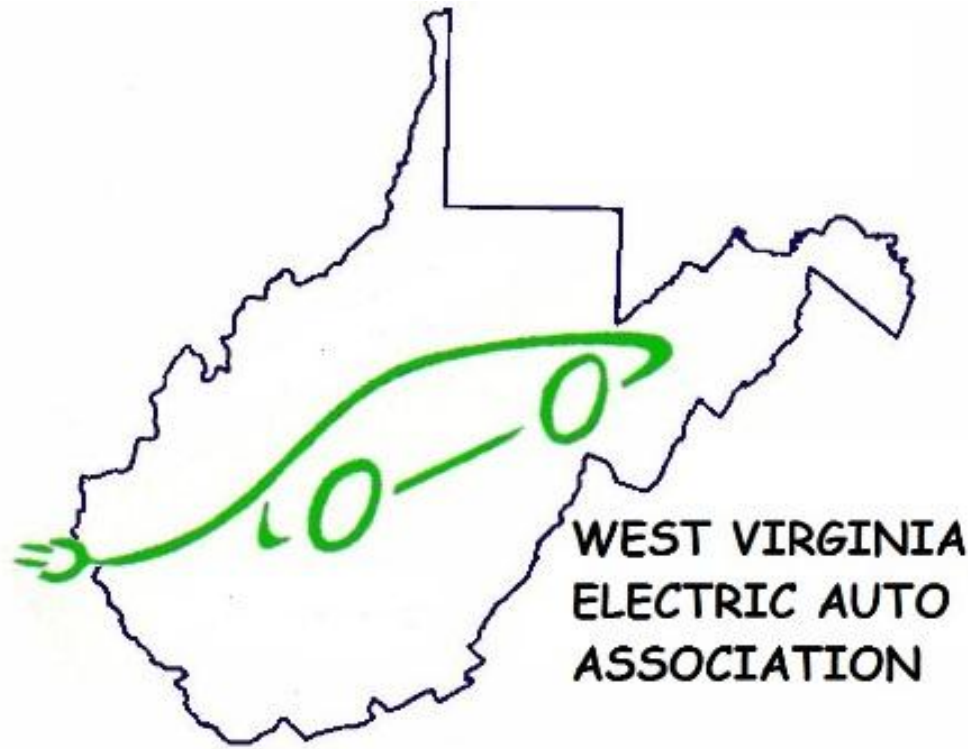


Electric Autos and West Virginia Energy

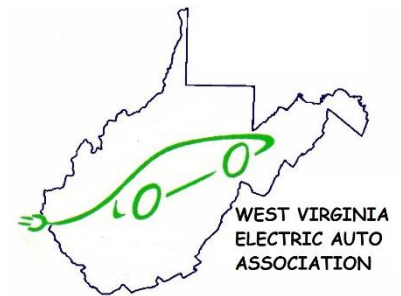


Electric Autos are not a New Concept



1909 Baker Electric

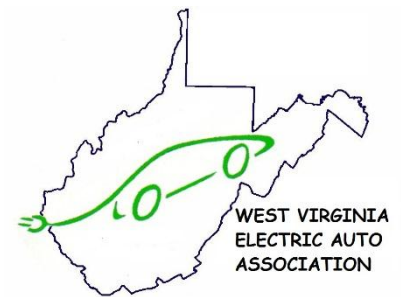
That's over ONE HUNDRED Years Ago



WEST VIRGINIA
ELECTRIC AUTO
ASSOCIATION

So, Why is Electric Making a Comeback?

- Advances in Electrical Drive Systems and Batteries
- Electric is very Convenient – especially for Urban Commuters
- Very Affordable on a Day-to-Day Basis
- Almost No Drive-Train Maintenance
- REALLY, REALLY FUN to DRIVE!



Why should We care about electric cars?

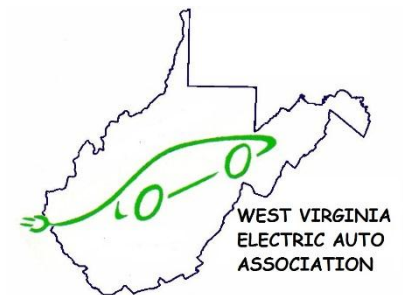
- Positive for US & W.Va. Economics
 - Reduce Imported Oil – Eliminate 500 gals gas per EV/yr
 - Limited effect on the Electrical Grid – Charged at night
 - Powered by COAL

Electric cars use power from the electrical grid

In W.Va. they are Powered by COAL!

An EV in W.Va. consumes 8 to 11 pounds of coal per day

100,000 EVs in W.Va. would consume 150K – 200K tons/year of coal



West Virginia Electric Auto Association Analysis

Engineering assumptions:

Coal heating value – 13,000 BTU/lb (S. WV Steam)

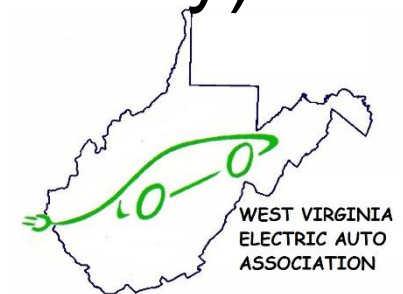
Power plant heating value – 0.67 lb coal / kwh

Electric car mileage – 3 miles / kwh

US car average miles driven – 37 miles/day

Coal Market Share – 70.2% - (from Midwest ISO)

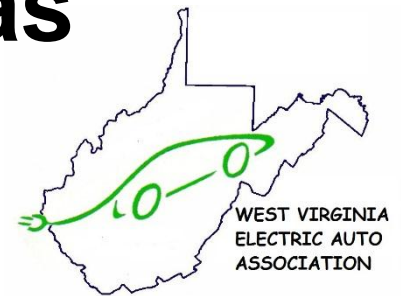
Coal Market Share – 95% - (West Virginia only)



Say What? **100K EVs in our Region?**

- There are **420,000** plug-in cars **NOW** in USA
- 25 models across 15 brands – Today
- More than 50 new models in pipeline
 - From GM, Ford, Nissan, BMW, Audi, VW, Mitsubishi, Volvo, Apple and others

**One Million EVs will consume
1.5MM – 2MM tons/year of Coal
and save 500MM gals of gas**



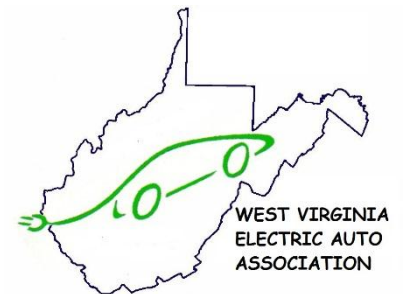
IN SUMMARY

EVs are Here & More are On the Way

- Advances in Electrical Drive Systems and Batteries
- Electric is very Convenient – especially for Job Commuting
- Very Affordable on a Day-to-Day Basis
- Much Reduced Vehicle Maintenance
- REALLY, REALLY FUN to DRIVE!

West Virginia stands to benefit:

- Increased Coal Usage
- Reduced Oil Imports
- Grid Friendly Electrical Consumption
- Market Boosts Available for Tourism and Retail Sales



IN CLOSING

**The West Virginia Electric Auto Association
is a ready resource for Information and
Policy Development**

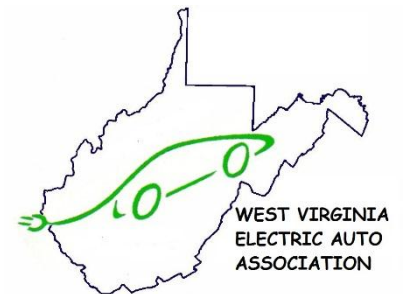
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Electric Autos and West Virginia Energy

