ACCELERATING INFRASTRUCTURE INVESTMENT FORECAST FOR LEGISLATIVE LEADERS

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Inflation Reduction Act
Inflation Reduction Act:
What does it do for EVs and our infrastructure?

Signed into law on August 16, 2022:

- Provides up to $7,500 in tax credits for new electric vehicles and $4,000 for used electric vehicles.
  - Material sourcing requirements
  - Income caps
  - MSRP caps
- EV Charging Equipment Tax Credits
  - Individual/Residential tax credit of 30% or up to $1,000
  - Commercial tax credit of 6% up to $100,000
  - Extended through 2032
- Funding for states, municipalities, Indian tribes, or non-profit school transportation associations to replace class 6 or 7 heavy-duty vehicles with EVs.
  - Used for up to 100% of the costs for the vehicles, charging infrastructure, training, planning and technical activities to prepare for and support electrification.
Inflation Reduction Act:
What does it do for EVs and our infrastructure?

- Tax credits for the purchase of commercial EVs
  - Caps for certain vehicles above certain gross vehicle weight ratings
- Funding also available for:
  - Zero-emission technology at ports
  - State training programs for installation of home energy and electrification improvements
  - Grants to states, local, and tribal governments to support accelerated siting of interstate electricity transmission lines.
  - Grants for disadvantaged communities for development of water supply projects.
  - Competitive GHG grants for state, local, and tribal governments and other entities to support low-income and disadvantaged communities in benefiting from zero-emission tech.
  - Technical assistance to states, local, and tribal governments related to GHG reduction and domestic electricity generation.
California Air Resources Board Decision
California Air Resources Board (CARB)

What is the California Air Resources Board?
- California state agency tasked with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change.

What does CARB do?
- Identify, measure and monitor pollutants that pose the greatest health risks
- Research the causes and effects of air pollution problems, and the costs and benefits of pollution controls
- Set the state’s air quality standards through the Low-Emission Vehicle (LEV) and Zero-Emission Vehicle (ZEV) programs

Zero-Emissions Vehicle Program
- Series of rules proposed and adopted by CARB to reduce and eventually eliminate emissions from vehicles
  - Began with LEV program, which developed criteria for emissions reduction
  - Evolved to ZEV program, setting the stage to transition to all-electric vehicles
The new ZEV mandate (Advanced Clean Cars II):

- Requires by 2035 all new passenger cars, trucks and SUVs sold in California must be zero-emissions.
- Places further stringent requirements on combustion vehicles.
- Requires by 2045 all new medium- and heavy-duty sales be zero-emissions.
Existing ZEV standards are followed by 17 states

- Some states are automatically subject to the new CARB rules (e.g., Virginia)
- Other states must adopt new CARB rules (e.g., Maine)
- Massachusetts and Washington have committed to adopting these new rules
Impacts in the states

- Many states would need to affirmatively adopt new rules to follow new ZEV rules.
- Even without following ZEV rules, ACC II will dramatically increase the number of ZEV (and LEV) cars on the road in states that do follow and, because of market impact, in bordering states.
- Many states will likely see significant decrease in fuel consumption (and fuel tax), especially among communities with a significant share of traffic from states following ZEV.
- Automotive industry trends are significantly impacted by California. Even if ACC II is not adopted in other states, the new rules will have nationwide impact, leading to further increased sales of EVs across the country, and furthering decline of fuel tax.
The private sector
Private sector is taking the lead

G.M. will spend $7 billion on Michigan plants to further its electric-vehicle aims.
The automaker will build a battery plant and an assembly factory to produce electric pickup trucks, creating thousands of jobs.

Toyota will spend $1.3 billion on a N.C. electric car battery plant.
The plant, which will employ 1,750 people, will be located outside Greensboro.

UPDATE: Rivian confirms EV factory, thousands of jobs for Georgia

PHOTOS: Nissan Canton Plant to be center for its electric vehicle production in the U.S.

Stellantis, Samsung to invest $2.5B, create 1,400 jobs at Indiana EV battery plant

Hyundai electric vehicle factory to be built near Savannah

To accelerate its shift into electric cars, Toyota is going big on EVs, with plans to spend $35 billion and roll out 30 models by end of decade.
Where does this leave the states?
There's a problem:
Gas taxes do not appear to be a sustainable transportation revenue source.
CAFE standards are improving fuel efficiency of conventional vehicles
America’s fleet of passenger vehicles is turning electric
Achieving ZEV and efficiency goals will lead to declining fuel consumption

Billions of gallons of gasoline consumed annually
Revenue lost to fuel efficiency will grow

State + Federal Gasoline Tax Receipts (Billions)
View from the states: Ohio

Ohio State Gasoline Tax Receipts (Billions)

- $250M
- $635M
- $1,005M

2015 2020 2025 2030 2035 2040 2045 2050
Ways to manage lost revenues

1. Do nothing
2. Frequently raise the gas tax
3. Frequently raise other vehicle fees for registration, licensing etc.
4. Road Usage Charging
What can states do next?

- Create a Long-term Transportation Funding Commission
- Hold hearings on how executive branch agencies are accessing federal grant money
- Direct your state to join a RUC research coalition.
- Establish a RUC pilot program or enact a voluntary RUC program
- Begin transition planning.
- Apply for federal grant funding through the Bipartisan Infrastructure Law.
Our world is changing…

And the way we fund transportation should, too.