

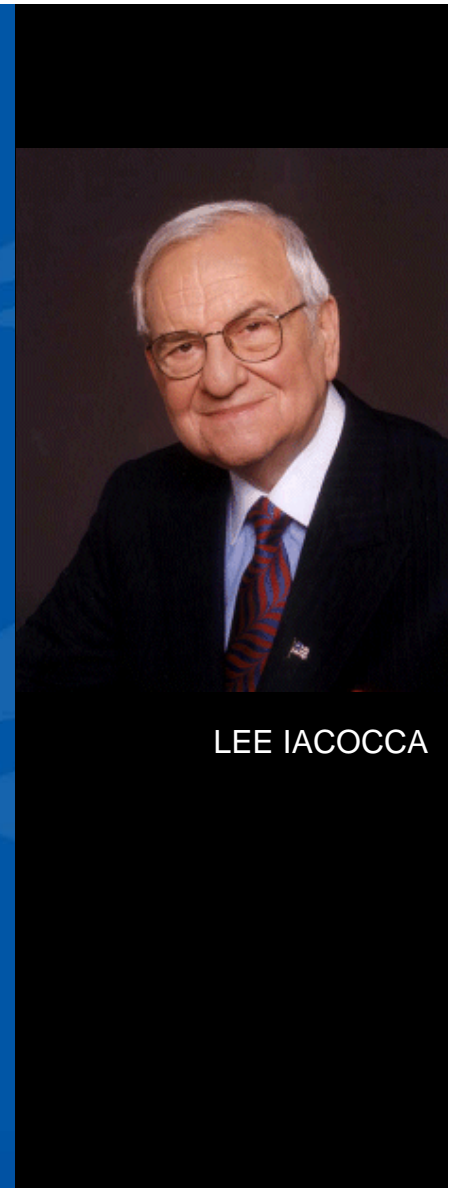
**THE ROAD AHEAD LOOKS BRIGHTER
...AND LIGHTER**

Buddy Stemple - Novelis
on behalf of
The Aluminum Association's
Auto & Light Truck Group



*“One way to increase fuel economy is to make cars lighter. Now, I know that people get all hot and bothered about lighter cars. They think they’re less safe. Is that true? **No.***

For the most part, safety is a product of design, not weight. Instead of building heavier cars, let’s put the focus on building lighter, more fuel-efficient cars. Even the largest vehicles, like SUVs and minivans, can be built lighter.”



LEE IACOCCA





CHEVROLET SEQUEL



RANGE ROVER



JAGUAR

ALUMINUM: THE PERFORMANCE ADVANTAGE



Aluminum's Value Proposition is Increasing as Automobiles are Evolving

Ethanol Moves Ahead

Clean Diesels Advance

Fuel Cells Look Promising

MASS REDUCTION CRITICAL TO THE FUTURE



Cost for a Material Substitution Classified as a:

- Simple part-by-part substitution
- Manufacturing and product system cost
- Life-cycle cost



Investing in the Future

- After transitional investments, aluminum cost premium is about \$630
- Add in secondary weight and cost savings in other systems (i.e. engine, brakes, transmission, battery, gas tank, etc.) and aluminum's cost premium is only about \$103 per vehicle



Senator Charles E. Schumer, Chairman

JOINT ECONOMIC COMMITTEE

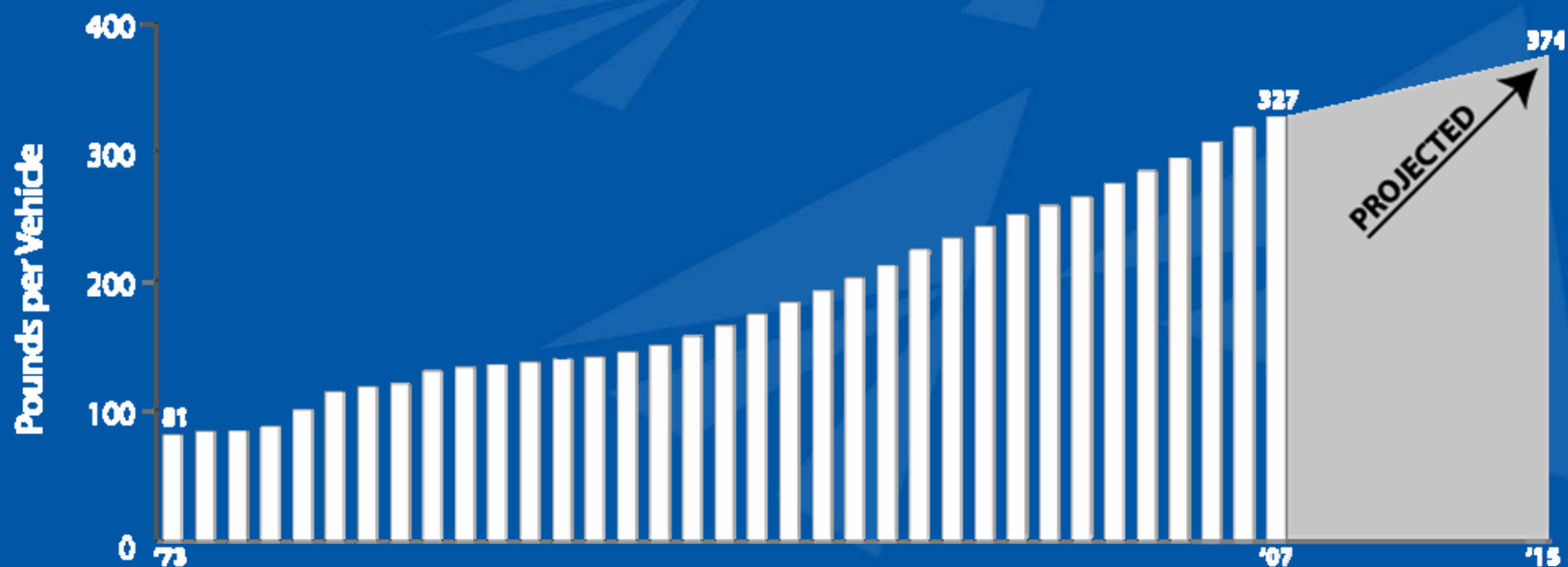
MONEY IN THE BANK – NOT IN THE TANK

“ . . . Families with teenagers can save about \$4,330 over five years by upgrading to vehicles with a 35 mpg fuel efficiency. . . ”

COST v. VALUE



North American Light Vehicle Aluminum Content: Three Decades of Steady Growth



ALUMINUM CONTENT INCREASING



- An 8% fuel savings can be realized for every 10% reduction in weight
- Fuel savings result in reduced tailpipe emissions

TAHOE
HYBRID
2 MODE



ALUMINUM SAVES FUEL & CUTS EMISSIONS

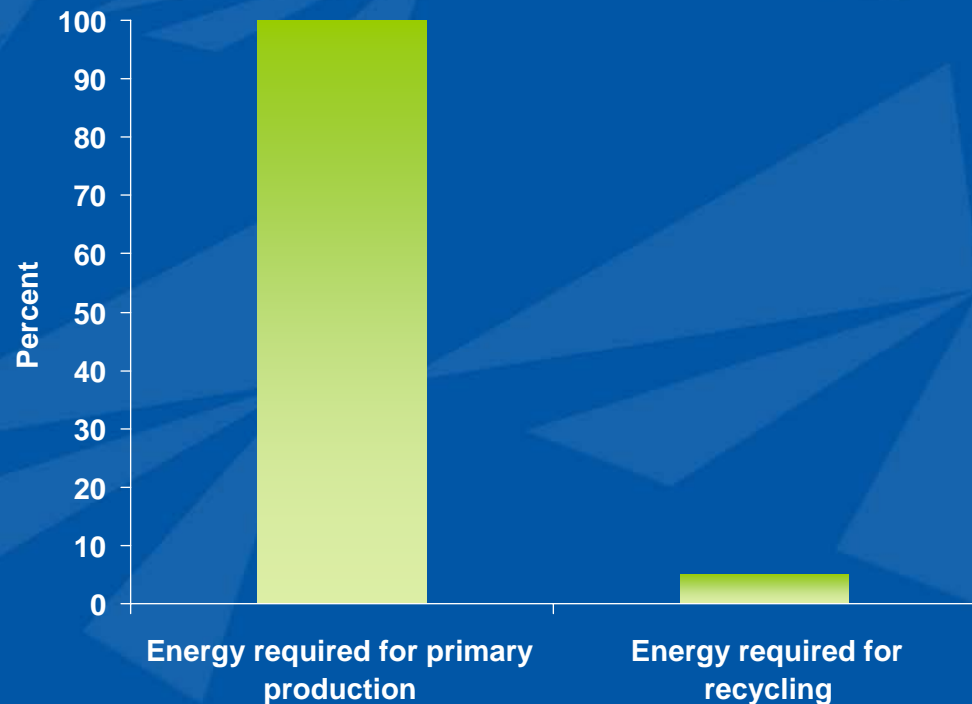


Nearly 90% Of Automotive Aluminum Is Recycled



Recycling Aluminum:

- Saves 95% of CO₂ emissions
- Uses only 5% of the energy



RECYCLING ALUMINUM CONSERVES ENERGY



THE STRENGTH OF ALUMINIUM



“But what’s quality without safety? Our target in developing the new XJ was to produce one of world’s safest cars. And the advanced body structure [Aluminum Intensive] is the foundation of its excellent safety performance.”

- D. Scholes, Jaguar Chief Program Engineer

INCREASE SIZE...DECREASE WEIGHT



A Lighter, Slightly Larger Vehicle Is Safer For All Concerned

NHTSA crafted a new formula for its Corporate Average Fuel Economy regulations for light trucks based on vehicle size, recognizing that size is a better determinant of vehicle safety.



VEHICLE SIZE IS KEY TO SAFETY



Lightweight Solutions to Increase



Mild Steel and Iron
-478lbs

Aluminum and other
lightweight materials



Source: Ducker Worldwide



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www.autoaluminum.org