## RECYCLABLE 8 ALUMINUM CANS ONLY

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## Aluminum Production



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## Schematic cross-section



Hall-Heroult process


## Waste and Energy

- Two tons of "red dirt" produced for each ton of aluminum
- 17.5 tons of $\mathrm{CO}_{2}$ produced for each ton of aluminum
- 280 lbs of PFCs produced per ton of aluminum
- 67.5 GigaJoules of energy used per ton of aluminum

"gathering aluminum scrap"

- $\sim 100 \%$ recovery
- Low melting point requires less energy


## Recycling

"melt aluminum scrap"



- No caustic agents
- No direct byproducts


## Energy Equivalents

Primary Recycled
Polluted soil
Lots of $\mathrm{CO}_{2}$ and PFCs
High Energy Consumption

No Hazard Waste
Low $\mathrm{CO}_{2}$ and PFCs
Low Energy Consumption

Trashing one can wastes enough energy to:

- Power a large flatscreen TV or computer for 3 hours
- Light a lightbulb for 20 hours
- Fully recharge a phone 50 times
- Make 15 slices of toast
- You can run for 2.5 miles



## Energy Equivalents

- Trashing 1,000,000 cans is wasting as much energy as:
- 40 Barrels of oil
- Driving a car 50,000 miles
- 130 Tons of TNT



## Thank you



