



IBM Almaden Institute

Scalable Energy Storage

Beyond Lithium-Ion

August 26-27, 2009

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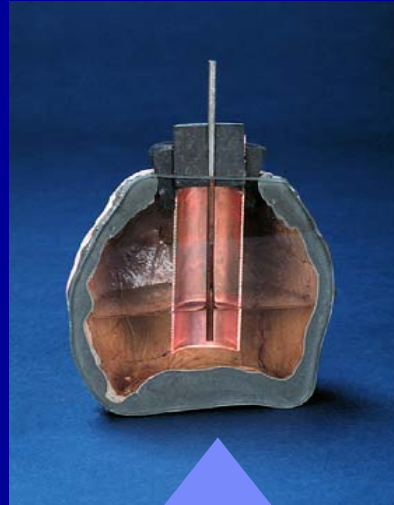


Generation – Transmission - Storage

Generation



Storage



Transmission



Electrical
Energy
Supply

Scalable Energy Storage: 3-way Game Changer

- Break the ~ 20% ceiling on intermittent renewable energy



+



>> 20%!

- Neighborhood Energy



+ 2 GW/day til 2050 ?

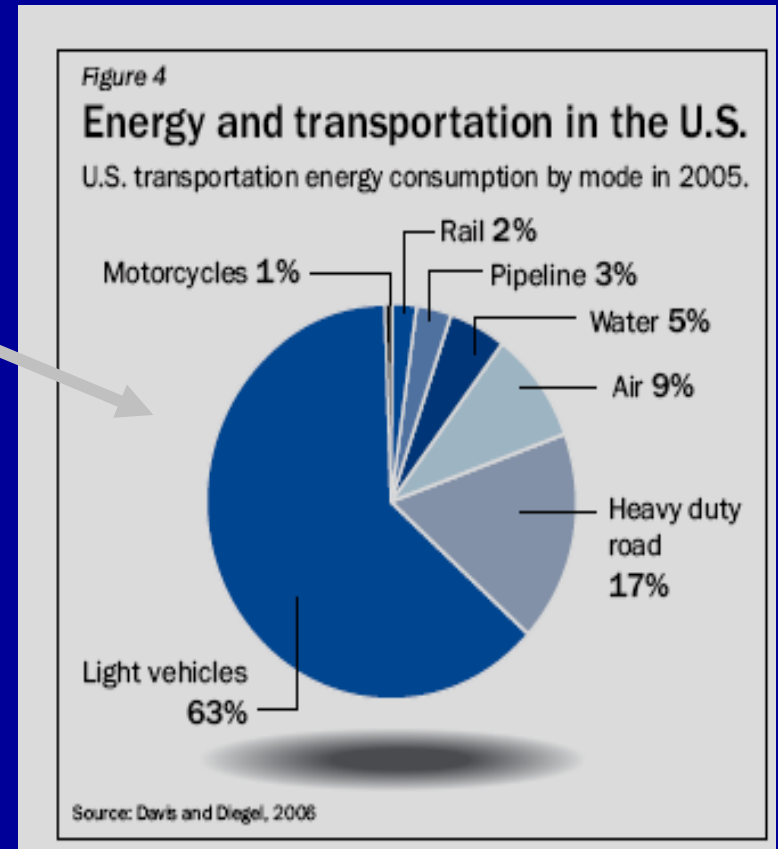
- Greatly reduce oil-dependency



Where does all that oil go?

- US uses ~ 20 Million barrels of oil / day
 - 14 Million bbls per day are imported (= 70%)
 - 14 Million bbls per day for transportation

■ **81%** of US oil imports could be eliminated if all cars & trucks were fully electric



Daily US oil consumption as an 'Oil Lake'

