

## Finding Value in the Triple Bottom Line

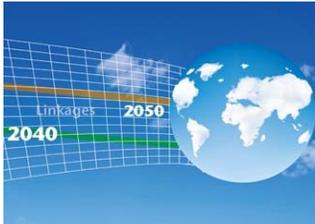
*Profit and Cost Savings with Societal Benefits*

Andrew Mangan, Executive Director  
 United States Business Council for Sustainable Development

Portland, Oregon  
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United States Business Council  
 For Sustainable Development



# WBCSD Global Network

The US BCSD is one of 60 country business councils working on implementing sustainable development at the local, operational level.



Society benefits when businesses think about sustainability, innovation, and community interaction.

US Businesses need clear line of sight to revenue, product growth, cost savings and reduced risks.



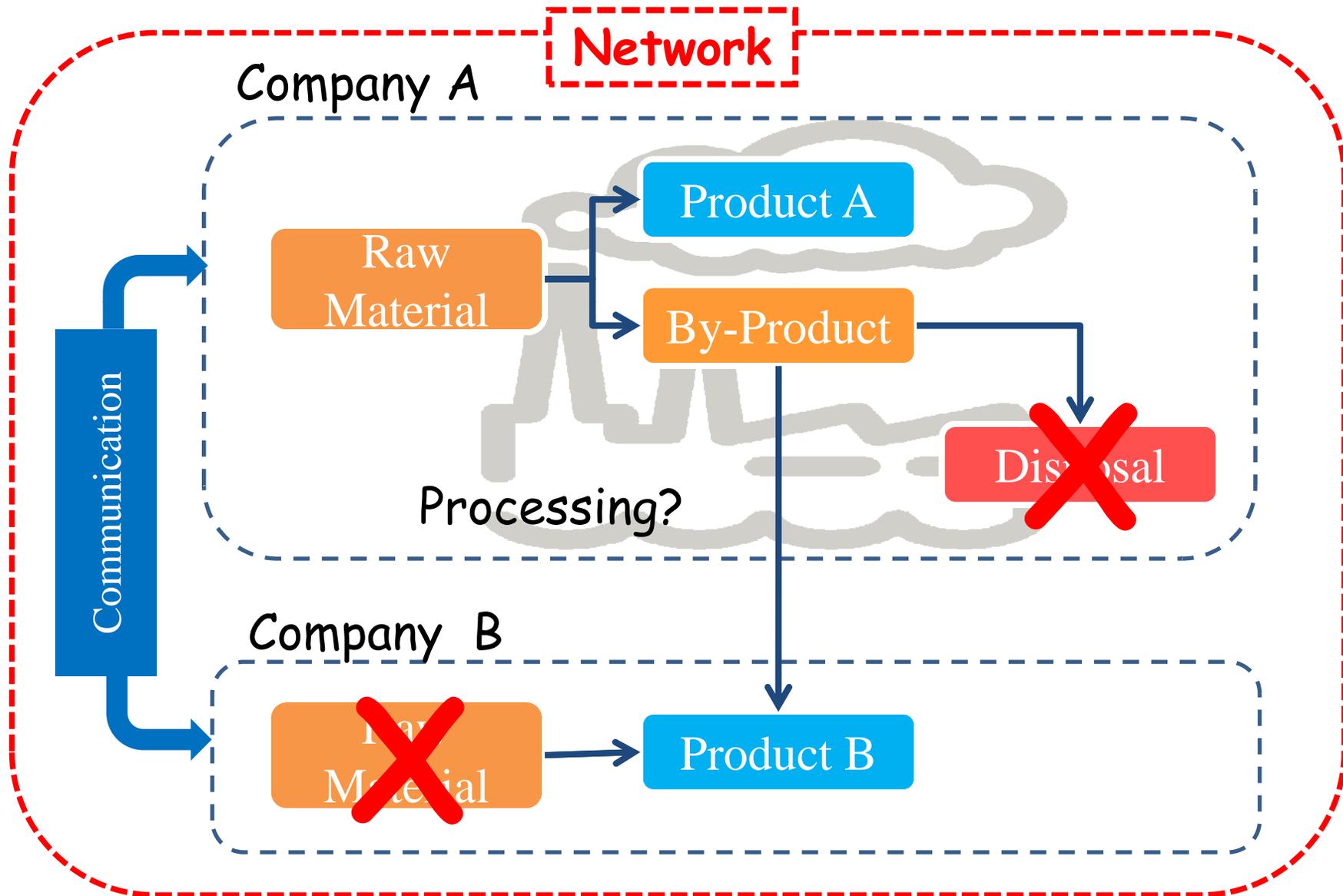


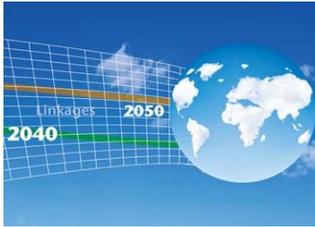
# Expanding BPS through Licensing

***By-Product Synergy*** is the matching of under-valued waste, transportation, energy and other streams from one facility with potential users at another facility to create new revenues or savings, environmental and societal benefits.



# By-Product Synergy Process





# US BCSD By-Product Synergy Projects

## ● Active/Complete

- Kansas City
- Chicago
- Seattle
- Gulf Coast
- Mobile
- Houston
- Ohio

## ● In Development

- Boston
- Central Michigan
- Central Texas
- Mid-Atlantic
- East Bay
- Milwaukee
- US Military TBD



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Resources Available   Resources Needed 

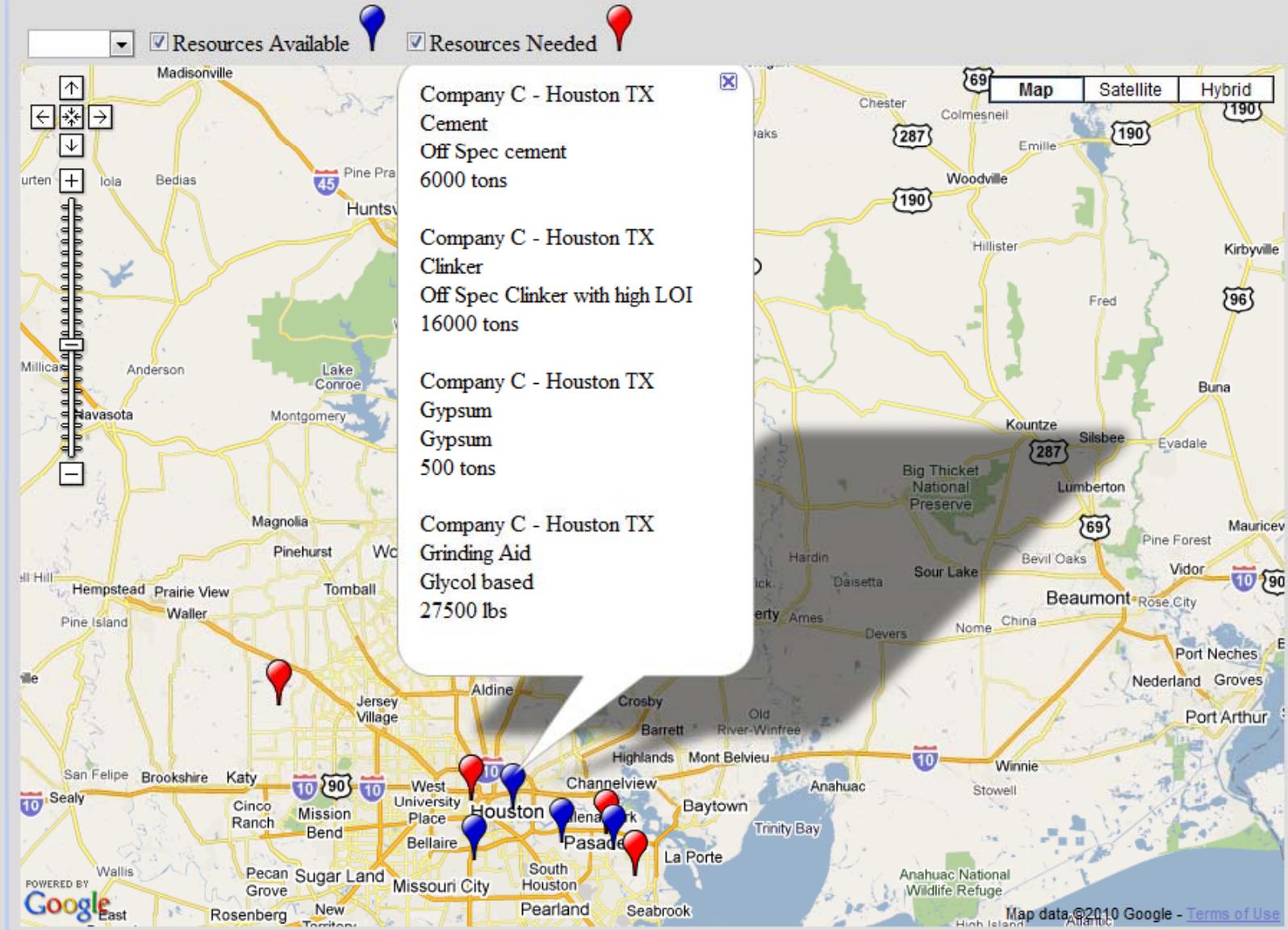
Map Satellite Hybrid

Company C - Houston TX  
Cement  
Off Spec cement  
6000 tons

Company C - Houston TX  
Clinker  
Off Spec Clinker with high LOI  
16000 tons

Company C - Houston TX  
Gypsum  
Gypsum  
500 tons

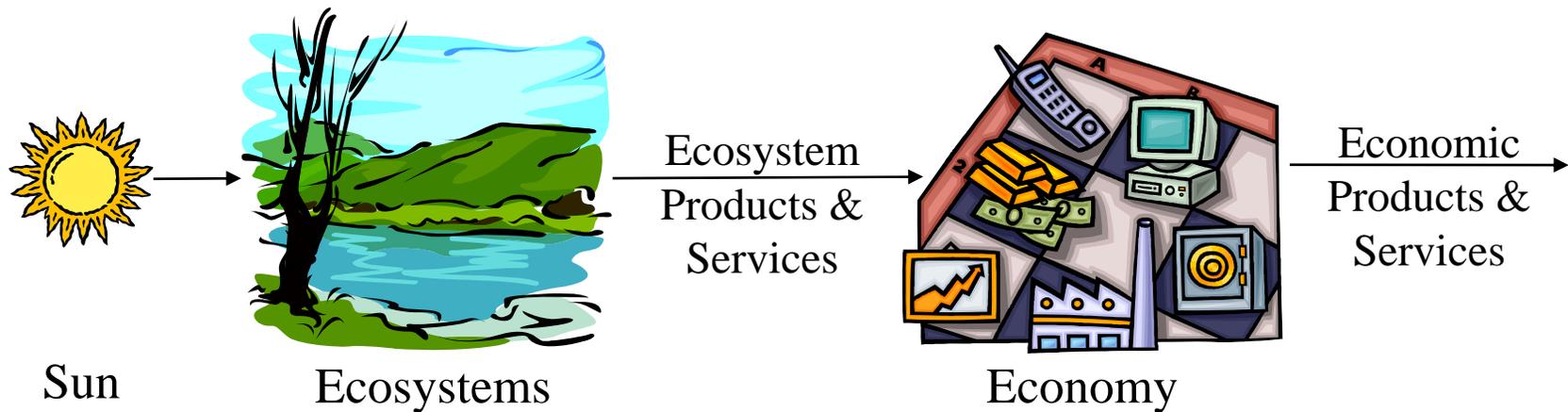
Company C - Houston TX  
Grinding Aid  
Glycol based  
27500 lbs





# Ecological Life Cycle Assessment

Eco-LCA is a framework to account for the role of ecosystems in supporting human activities



Considers ecosystem services in physical units  
Provides many footprints – Carbon, Water, Nitrogen





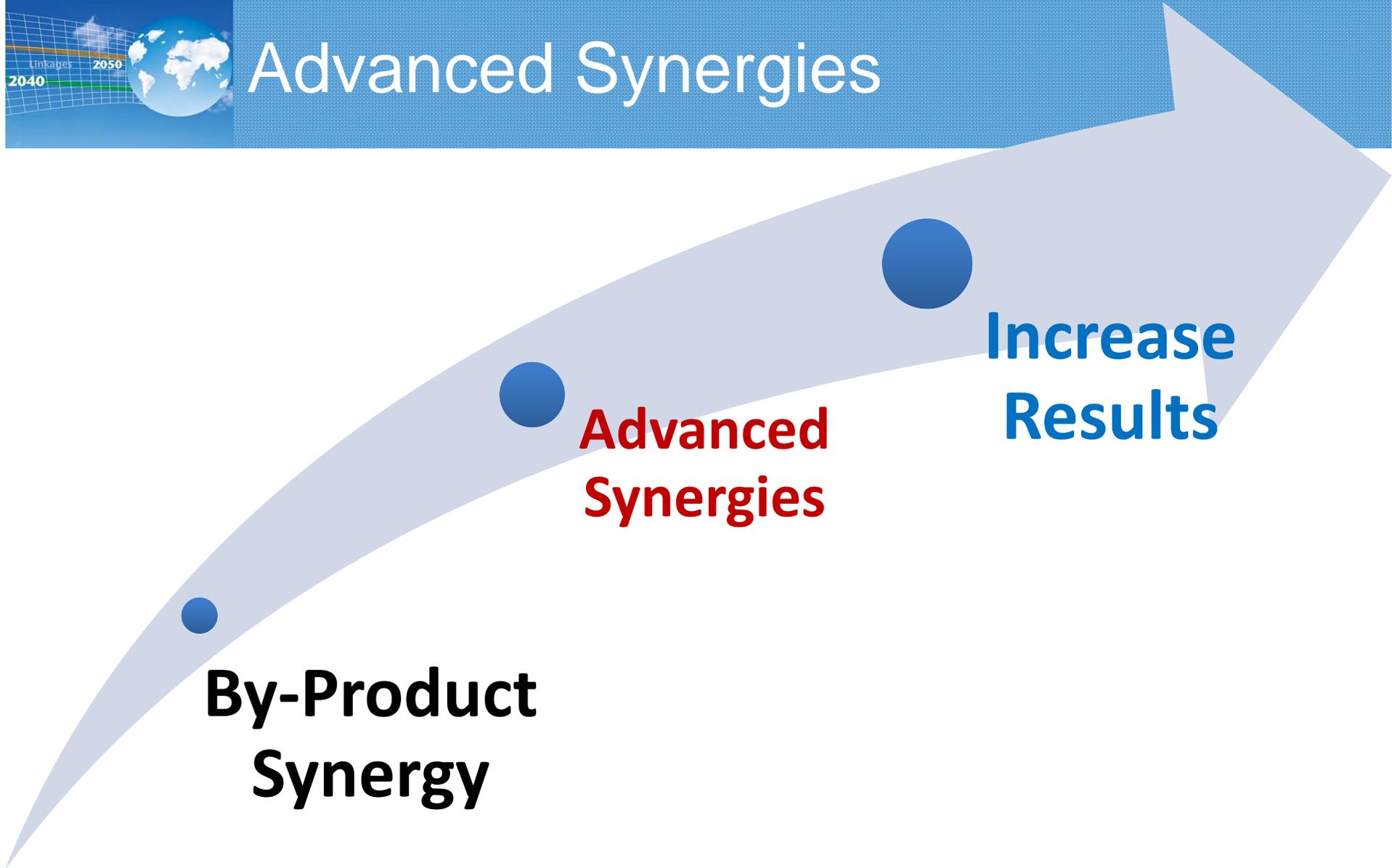
# Based on Year-One Results Estimated Resource Savings

- \$4.2 million in waste disposal costs and virgin material savings
- 250 million gallons of water
- 6 million barrels of oil-equivalent energy
- 3,000 acres of land
- 13,000 metric tons of carbon dioxide equivalent
- 29,000 metric tons of non-renewable resources





# Advanced Synergies

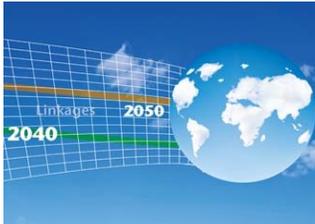


**By-Product  
Synergy**

**Advanced  
Synergies**

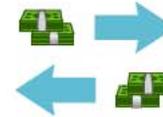
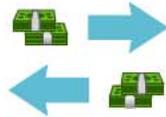
**Increase  
Results**





# Commercial and Industrial Property Assessed Clean Energy Financing

## HOW IT WORKS



BARCLAYS  
CAPITAL

Companies identify cost effective retrofits and request funding from City or County

City or County creates special tax district allowing property owners to receive financing for Energy Efficiency and Renewable Energy

Barclays funds all projects through city or county special tax district with 100% private capital

## PACE BENEFITS

- Jobs creation -- 5 million jobs nationally
- Economic Stimulus -- \$500 billion through the construction trades, with strong local multiplier
- Infrastructure development -- large scale upgrade to the nation's power grid - privately financed
- GHG reduction -- large carbon footprint reduction done profitably



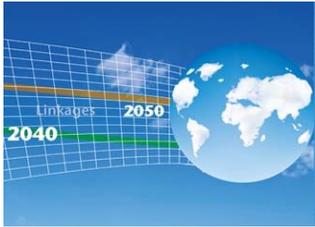
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# Projects

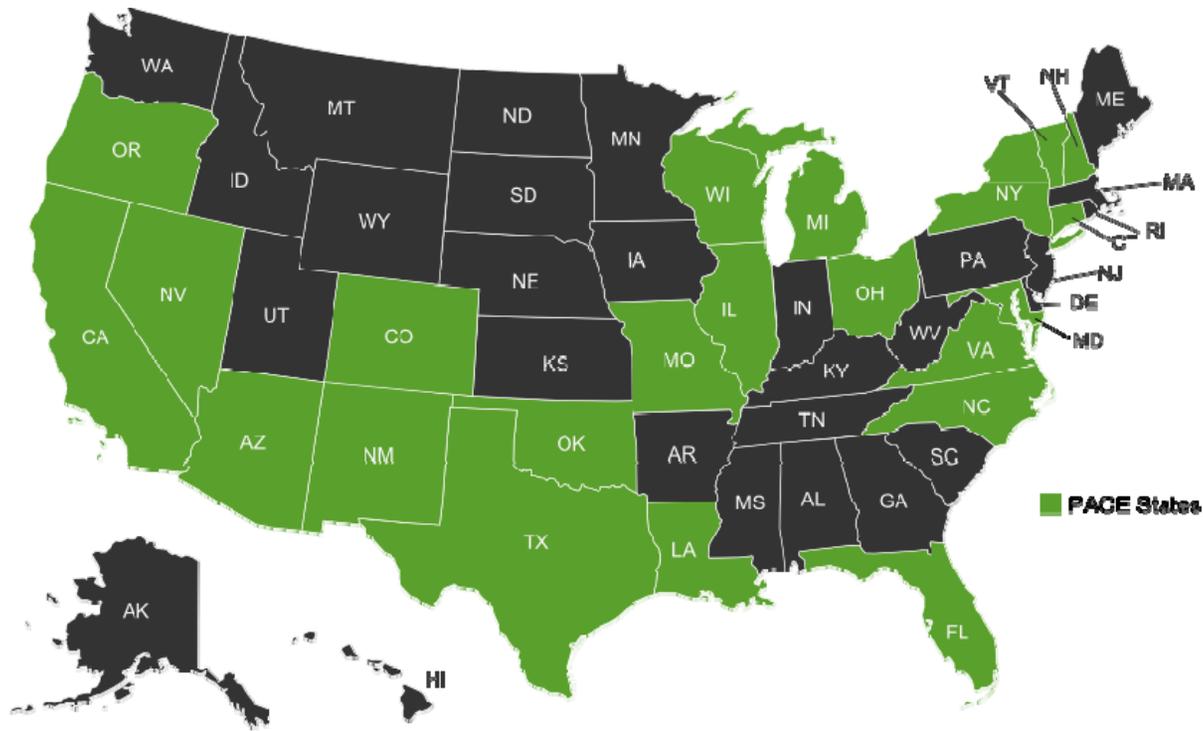
- Air compressors
- Pumps
- Drives and Motors
- Water recirculation project
- Lighting
- Power factor correction
- Alternative energy induction
- Heat recapturing (HVAC, water, etc.)





# Nationwide Legislation

- Since 2008 22 States have Passed PACE Legislation
- Typical Goals: Jobs and Economic Stimulus
- Energy Independence and GHG Reduction





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United States Business Council  
For Sustainable Development



World Business Council for  
Sustainable Development