



Consumer Energy Alliance Houston October 26, 2010

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- University of Houston Building an Energy University
 - Advancing Energy Research & Development
 - Advancing Energy Education and Outreach
 - Advancing Technology Transfer
 - Spin-off Businesses
 - Energy Research Park



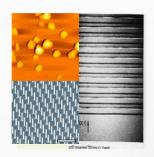






Alternative and Renewable Energy Research

Solar Cell R&D



Nanostructured Solar Cells



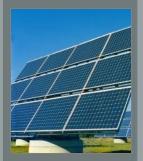
Wind Energy R&D



Blade Testing









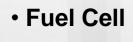
New Horizons in Traditional Energy

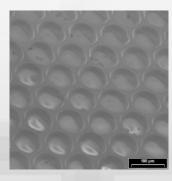
Subsurface Exploration



3D Seismic Imaging

Clean Fuels and Power Generation





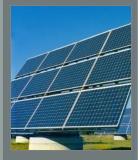
Thin Film Fuel Cell



Clean Diesel





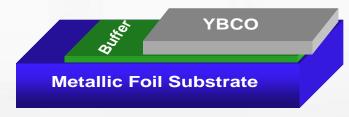




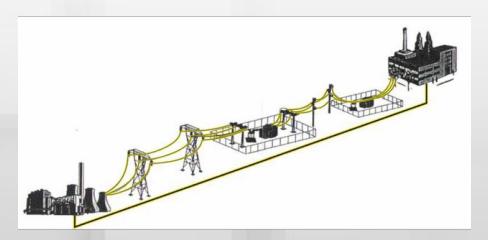
Energy Integration – Smart Grid

High Temperature Superconducting Transmission Cable





2nd Generation HTS Wire











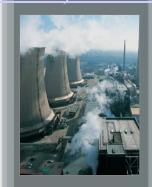
Energy Conservation and Sustainability

















Energy Management and Policy





PUBLIC HISTORY



UH Energy Research Park



- House a manufacturing incubator
- House funded energy research projects
- House energy education programs



- **Economic Development**
 - Mixed use space
 - Light manufacturing and assembly

UH Energy

- Small and start-up businesses
- Pool of educated but entrepreneurial labor





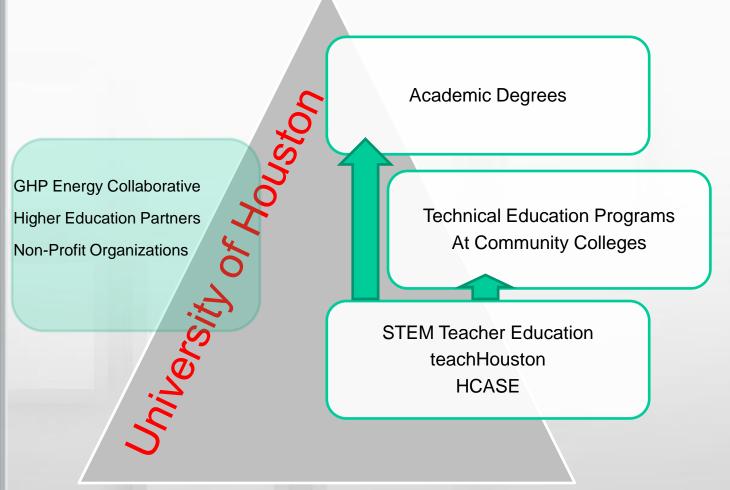






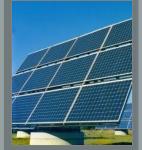


Leading Energy Workforce Solutions











Redefining Energy Education: Framework for Curriculum Innovation

Innovation

Undergraduate and Graduate Degrees

- Creativity/Innovation
 - Leadership
- Entrepreneurship
 - Data Mining
- Project Management



Collaboration with Industry to Build Best-in-Class Curriculum

Energy Tracks

- Environmental Impact & Policy
 - •Renewable Energy
 - Energy Technology





Interdisciplinary Energy Tracks Leading to High Impact Majors



Energy Courses Open to All Students



GHP Energy Collaborative Workforce Committee

 Network of over 125 leaders from business, education and nonprofit groups

MISSION: Engage industry, education, economic development and community partners to work together to meet current and future energy workforce needs

VISION: Become the recognized global leader in energy talent development

- Initial focus on programs that support STEM education in K-12
 - Science and Engineering Fair of Houston
 - Houston: Energy City of the Future
 - EnergyVenture Camps
 - GeoForce
 - IPAA Academies