

Green Collar Jobs for a Sustainable Energy Future for all Philadelphians

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Energy Coordinating Agency





ECA Staff

ECA was established in 1984 in response to rising energy costs, and utility terminations. In 2008 ECA has 100 full time green collar employees.

Mission: ECA helps people conserve energy and works toward a sustainable and equitable energy future for all Philadelphians

ECA's Services

- **Energy Conservation in homes: 2,800 hhs**
- **Energy Conservation Education: 5,200**
- **Heating system repair/replace: 3,600**
- **Bill payment assistance: 40,644**
- **Energy Policy and Advocacy at City and State levels**

ECA leverages \$4 for every \$1 in funding



Smart Energy Solutions

- Home Performance with ENERGY STAR
- ENERGY STAR Homes
- LEED for Homes



Energy Prices: High and Rising

- **Peak Oil** (and Gas)
- **Oil** = \$90 - \$150 per barrel
- **Fuel Oil** = \$4 a gallon
- **Coal** has tripled in price
- **Electricity** Rate Caps coming off in 2010, Rate increasing at least 25%
- **Water** rate increase of 30%

- Energy prices projected to increase 6% to 10% each year, every year on average

World Oil Peak

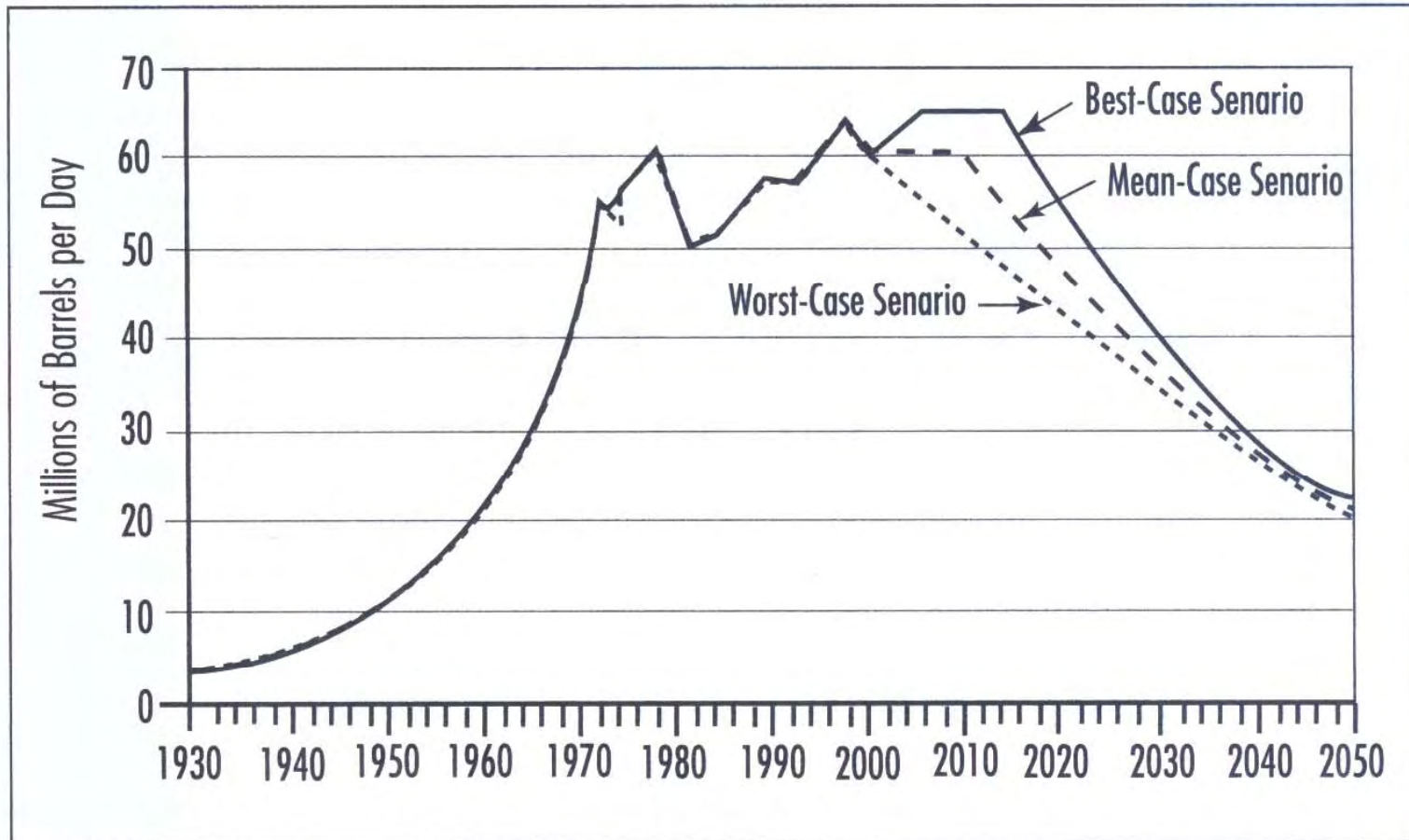
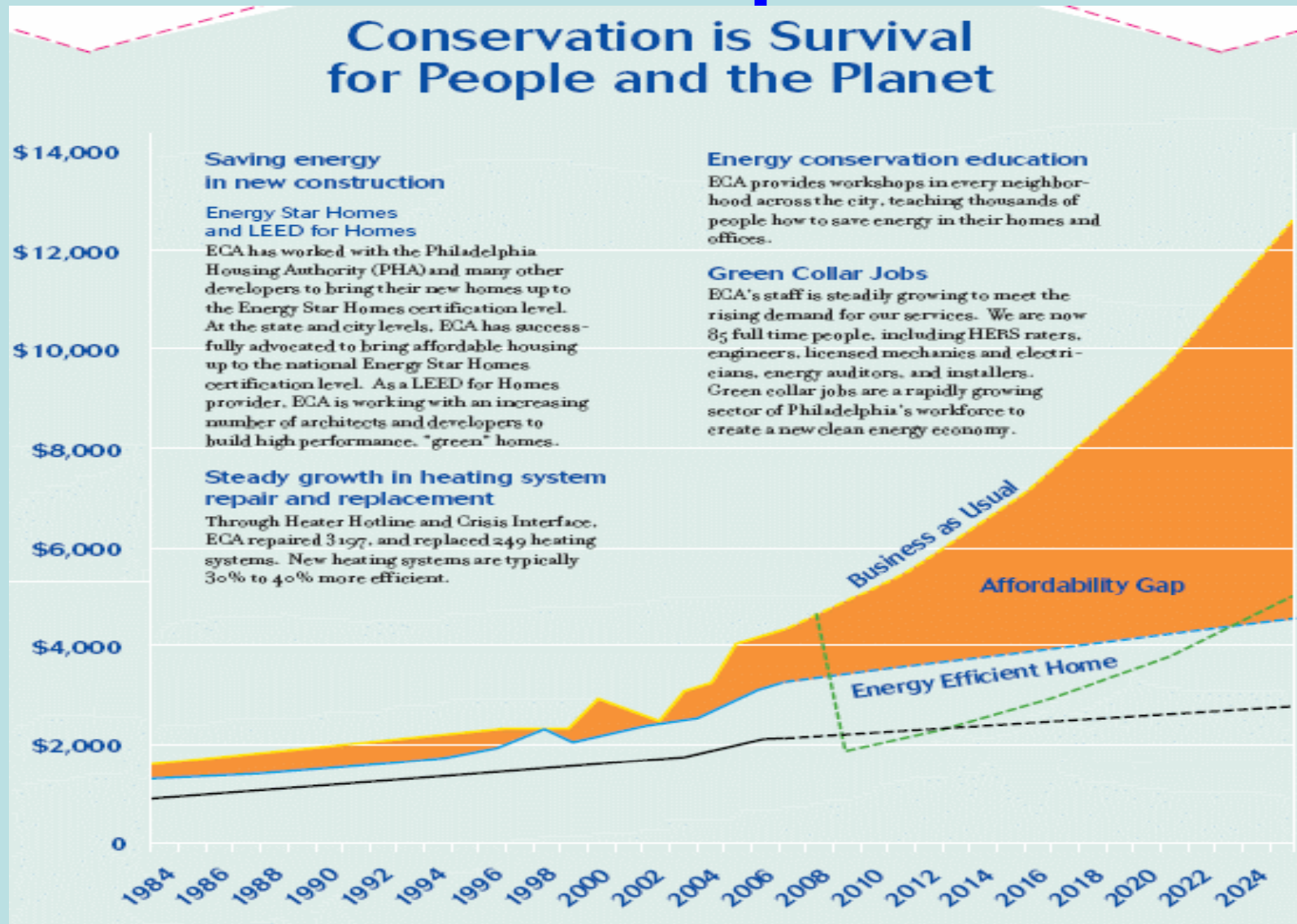


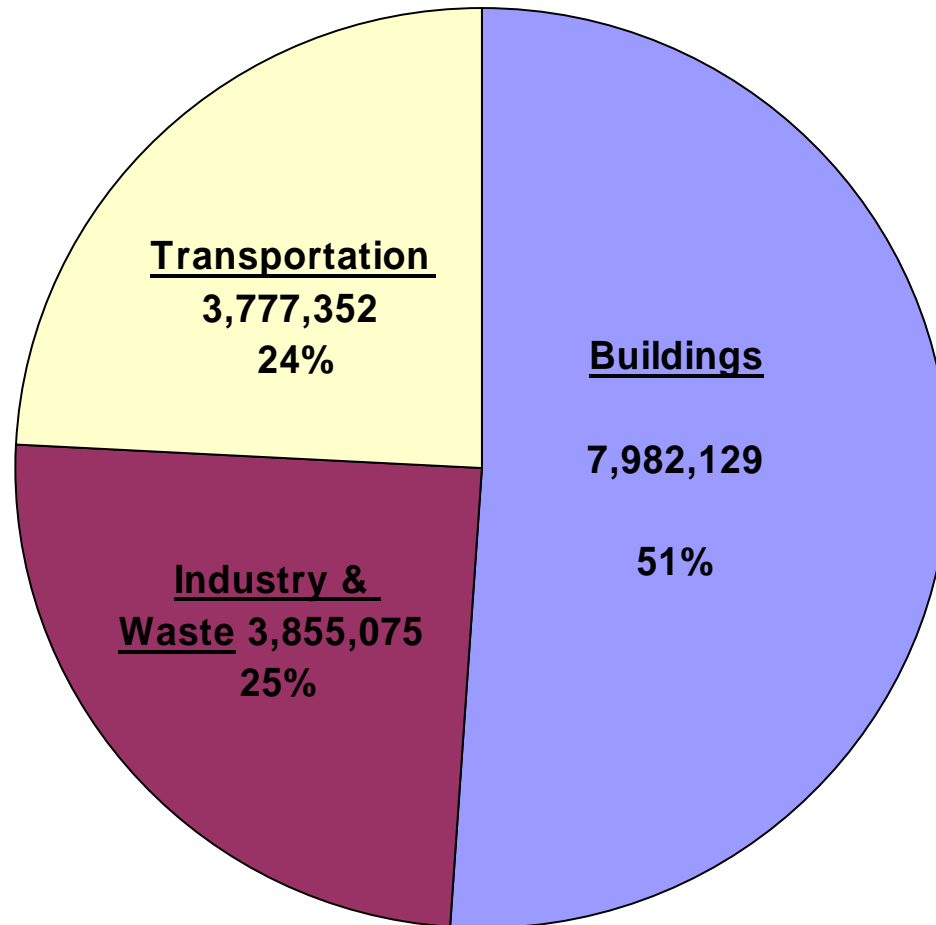
Figure 7. World oil production 1930–2050: best-, worst-, and mean-case scenarios, in millions of barrels per day (Source: C. J. Campbell)

Average Energy Prices in Philadelphia

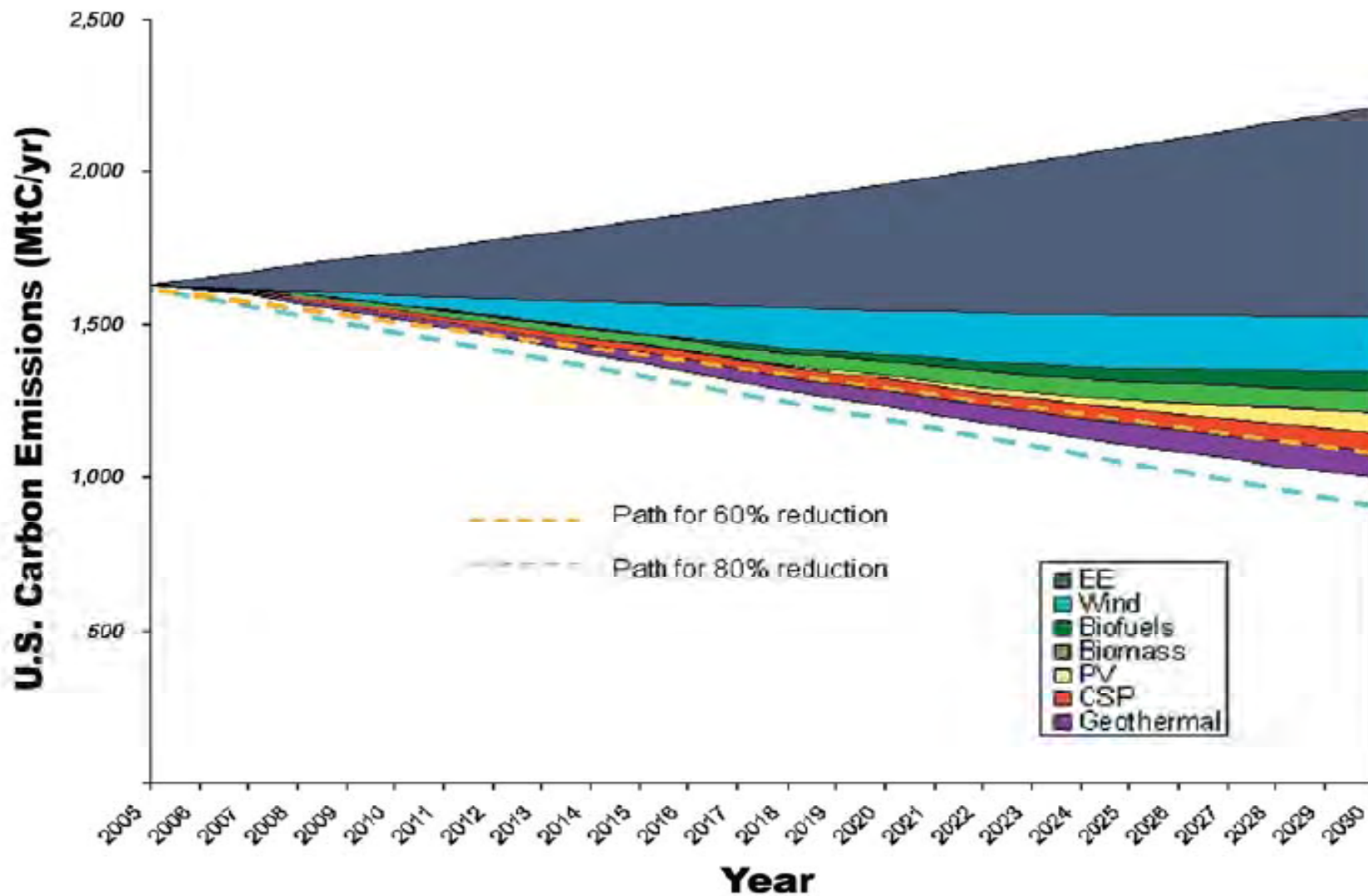


Green House Gas (GHG) Emissions in Philadelphia in 2006

(measured in tons of CO2 equivalent)



Potential Carbon Reductions in 2030 from EE and all renewables to achieve reductions of 80% by 2050





Philly Needs Green Collar Jobs

Energy conservation is the **cleanest** and **cheapest** form of energy; it also produces more **local jobs** and local economic benefit than any other source.

GREEN COLLAR JOBS

- Energy Auditors
- Educators
- Water conservation
- Air Sealers
- Insulators
- Carpenters
- Heating System Mechanics
- White Roofers
- Energy Raters
- Engineers
- Building Scientists



Energy Auditors



Air Sealers

- Reduce drafts
- Reduce infiltration/exfiltration
- Reduce heating and cooling costs
- Reduce moisture problems
- **Important!**
 - AIR SEAL BEFORE YOU INSULATE!



	ENERGY STAR HOME SEALING
<small>EPA recommends sealing the "envelope" that surrounds your living space: - the ceiling - outer walls - windows - floors</small>	<small>To save on your heating and cooling bill and increase the comfort of your home: • Add insulation • Seal air leaks • Choose ENERGY STAR qualified windows when replacing windows.</small>
<small>ENERGY STAR is a program of the U.S. Environmental Protection Agency and the U.S. Department of Energy.</small>	www.energystar.gov

Window Installers



Heating System Mechanics



Cool Roofers



Cool Roofers



Cool Roofs Cool the Planet

White, reflective roofs lower air conditioning load by 22%, increase longevity of roof, reduce urban heat island impact, slow global warming, and may save lives.



Insulators



Insulators and Air Sealers



Carpenters



Energy Star Homes comes to Public Housing in Philly



First LEED Certified Home in Pa., moving toward Zero Energy



Solar Energy



Market Transformation

- **ENERGY STAR Homes**
- **Home Performance with ENERGY STAR**
- **Energy Education**
- **Training**
- **AEPS, Act 129, Solar Incentives**



Training is the Missing Link

- Before



After Renovation

Green Jobs Training Center



Training to National Standards

NABCEP



LEED[™]
FOR HOMES



**CERTIFIED
PROFESSIONAL**

Training is Key



PA to expand Training Capacity

- 7-10 Training Centers Statewide
- Standardized Curriculum statewide
- Certification of Trainers
- Certification of Weatherization Workers and Subcontractors
- Alignment of WAP with BPI
- Integration of WAP and Utility funded programs

Conservation is Survival



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