environmental & energy

DATA BOOK

Q4 2011

A Collection of Practical Environmental, Sustainability & Energy Data

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welcome

Environmental Leader's quarterly **"Environmental & Energy Data Book"** supplies busy executives and research teams with a collection of charts presenting environmental, sustainability and energy-related data. Our goal is to make the job of gathering essential information and metrics a bit easier for corporate decision-makers.

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PROMOTION

KEEPING THE BLUE SKIES GREEN

UPS'S AIRLINE FLEET REPRESENTED 53 PERCENT OF ITS TOTAL CO_2 EMISSIONS IN 2009. HERE'S WHAT THE COMPANY IS DOING TO CUT DOWN ON EMISSIONS, IMPROVE FUEL EFFICIENCY, AND MINIMIZE NOISE.

CO_2 EMISSIONS

HERE'S HOW THEY REDUCE CO_2

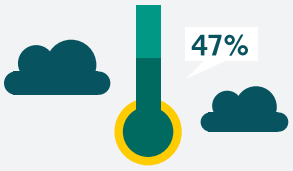
UPS® HAS ATTAINED A 9% REDUCTION IN AIRCRAFT CO_2 EMISSIONS PER AVAILABLE TON MILE SINCE 2005.

CO_2 LBS. PER AVAILABLE TON MILE— UPS AIRLINES GLOBAL OPERATIONS

	Nautical Miles	Statute Miles
2020	1.24	1.08
2009	1.40	1.22
2007	1.52	1.33
2005	1.54	1.34
1990	2.13	1.85

● Actual data ● Goal

UPS IS ALREADY AT 47% OF MEETING THEIR 2020 GOAL OF CO_2 POUNDS PER AVAILABLE TON MILE.



FUEL EFFICIENCY

HERE'S HOW THEY USE LESS JET FUEL

UPS HAS ALREADY BEAT THEIR 2011 GOAL FOR FUEL EFFICIENCY.

AVIATION GALLONS BURNED PER 100 AVAILABLE TON MILES

1990	2005	2009	2012
10.12	7.32	6.63	6.57

● Actual data ● Goal

LESS FUEL CONSUMED = LOWER AMOUNT OF GLOBAL CO_2 EMISSIONS.

UPS'S 2011 FUEL-EFFICIENCY GOAL REPRESENTS A 32% IMPROVEMENT FROM 1990.

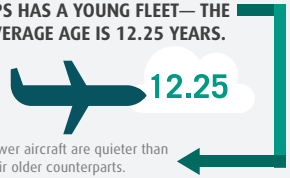
32%

NOISE

HERE'S HOW THEY MAKE LESS NOISE

UPS'S AIRLINE FLEET LEADS ITS INDUSTRY IN NOISE REDUCTION.

UPS HAS A YOUNG FLEET— THE AVERAGE AGE IS 12.25 YEARS.



Newer aircraft are quieter than their older counterparts.

THE ENTIRE UPS FLEET OF 210 AIRCRAFT MET NOISE REQUIREMENTS EARLY.

UPS REDUCED ITS AIRCRAFTS' NOISE PROFILE BY 30% AND LOWERED GROUND NOISE BY 5 DECIBELS.

SOURCE 2009 UPS Corporate Sustainability Report
ups.com/sustainability

FAST COMPANY

UPS

WE ♡ LOGISTICS™
thenewlogistics.com

Every supply chain has a carbon footprint.

UPS is the BEST CHOICE to HELP COMPANIES LARGE and SMALL MEASURE, MANAGE and MITIGATE THEIR IMPACT on the CLIMATE.

For more complete details, go to the Full Sustainability Report.

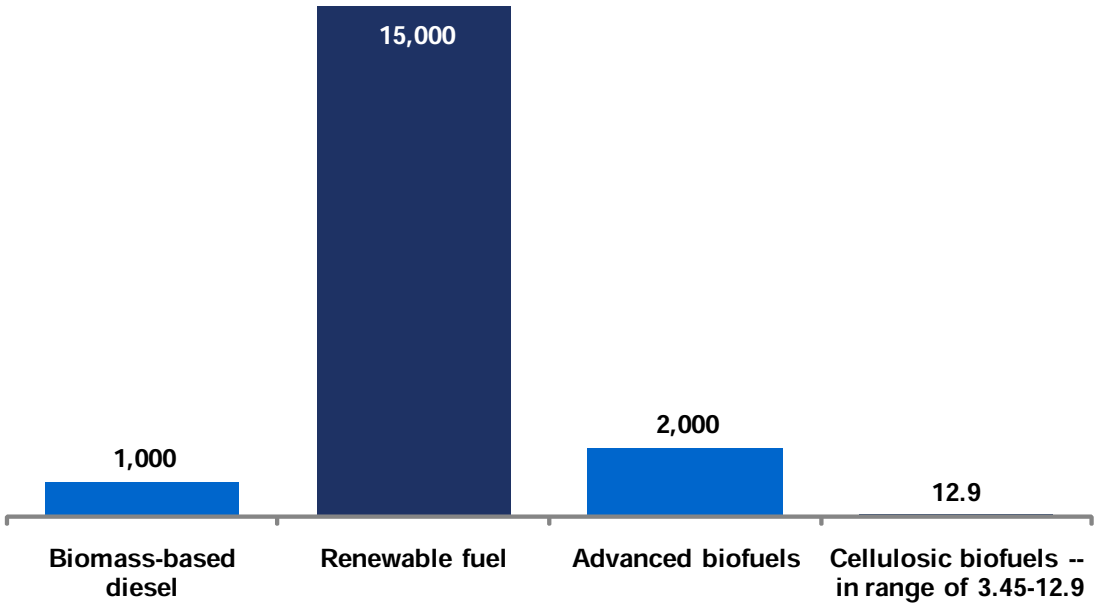
transportation & supply chain

Renewable Fuel Standards, Proposed Volume for 2012

(millions of gallons)

The EPA proposed its 2012 percentage Renewable Fuel Standards (RFS2) for fuel categories. Under the proposal, the total volume of renewable fuels would be 15.2 billion gallons, or 9.21 percent of the nation's on-road fuel supply.

The EPA is also looking to increase the 2013 volume requirement of 1.28 billion gallons for biomass-based diesel, above the 2007-specified one billion gallon minimum volume requirement.



Source: EPA, June 2011

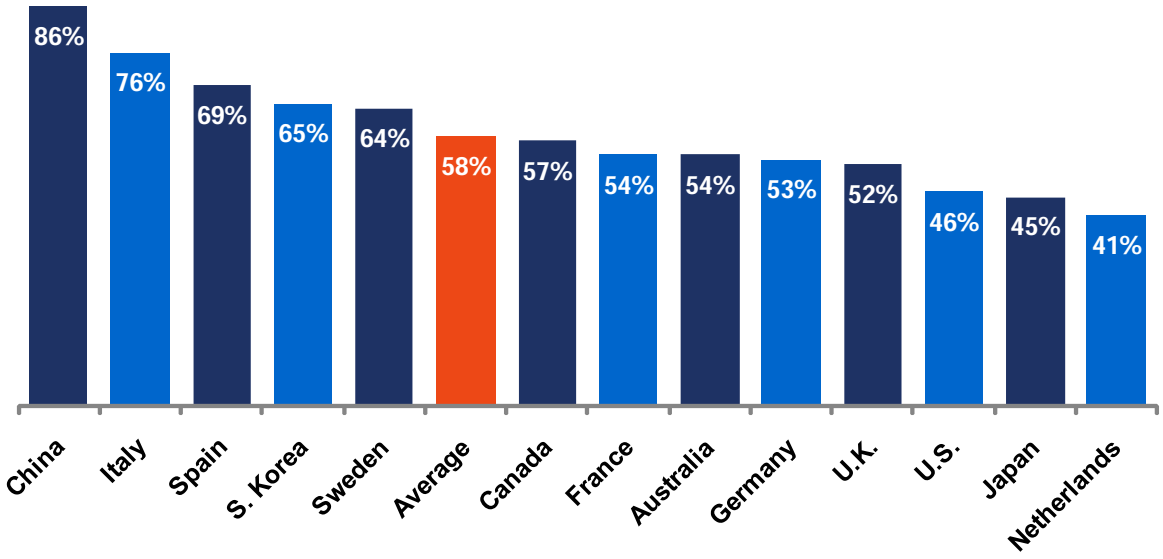
Who Favors EV Replacement of Conventional Cars?

(% of respondents who are "very much in favor")

Accenture designed a global survey to probe consumer attitudes toward PEVs, and found a range of support.

By country, a breakdown of positive support data – those who answered that they are "very much in favor of EVs replacing conventional vehicles" – shows the strength of opinion in some markets. For example, 86 percent in China support EVs, while in the U.S., it is less than half, at 46 percent.

* The term electric vehicle (EV) is defined as plug-in EVs (PEVs), including full EVs and plug-in hybrid EVs (PHEVs).



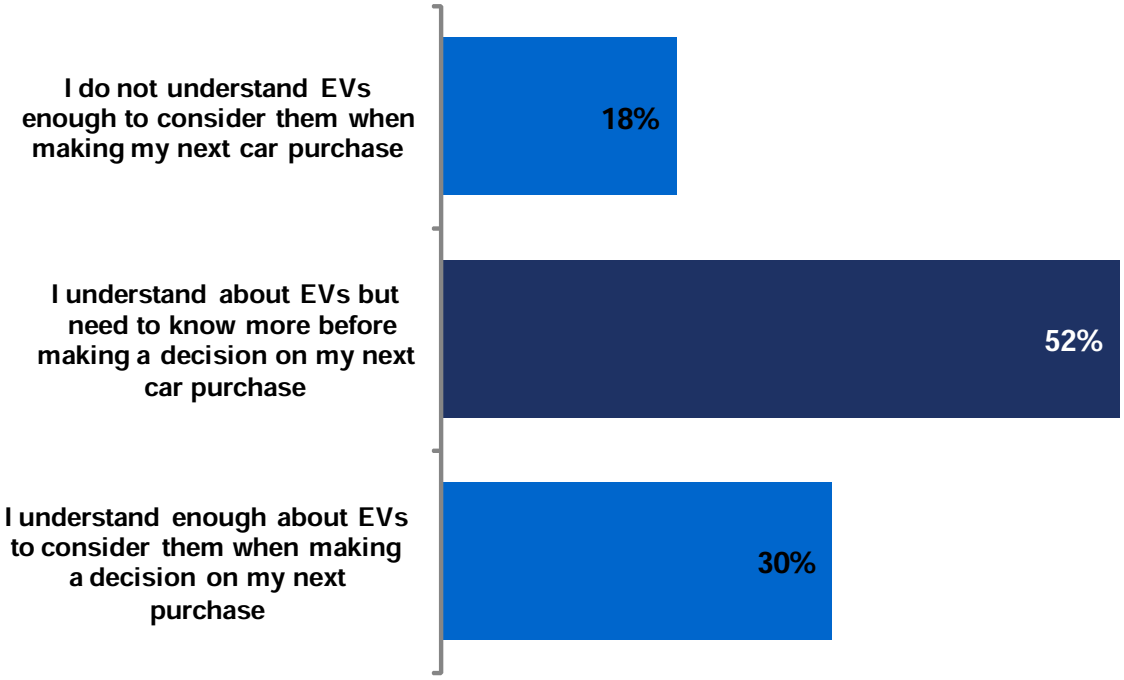
Source: Accenture, May 2011

Global Consumer Understanding of Electric Vehicles

(% of respondents, n=7,003)

More than two-thirds, a total of 70 percent, of respondents either need to know more about PEVs before they can consider them when making a decision on their next car purchase, or do not understand PEVs enough to do so.

But, surprisingly, 30 percent of consumers claim they know enough about PEVs to make a decision with their next car purchase.

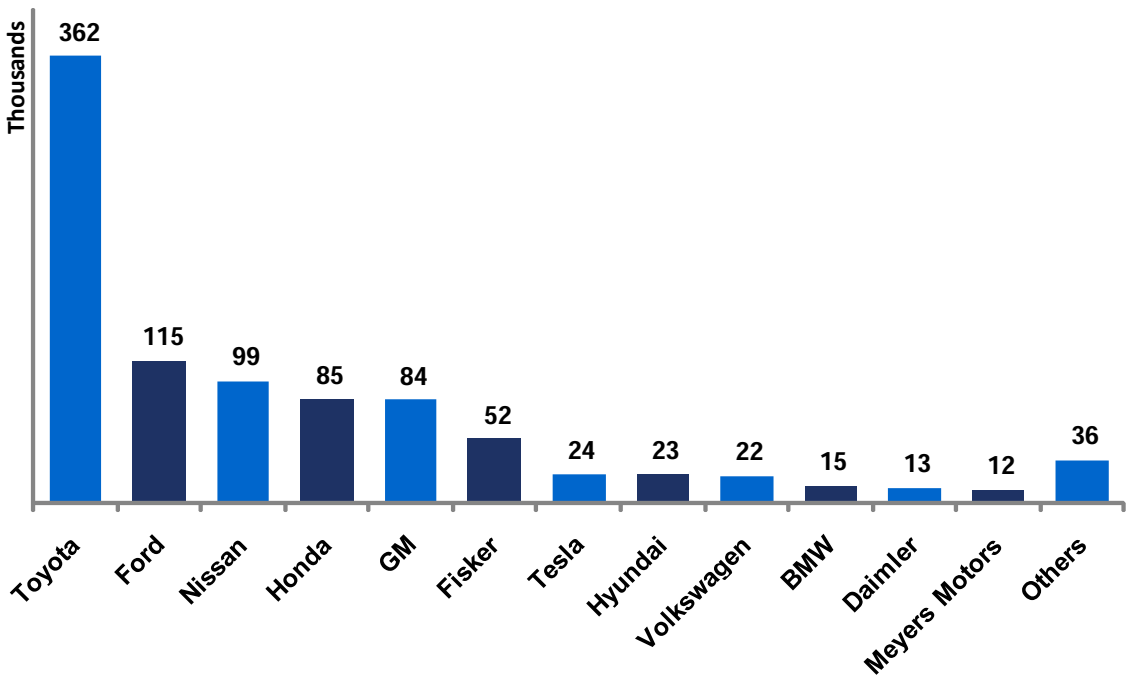


Source: Accenture, May 2011

Electric Vehicle Sales Forecast by Company for 2015

(thousands of units)

By 2015, there should be more than 100 EV models available, but many of these will sell only in modest volumes. The forecast anticipates that sales of these models – including hybrids, plug-ins, pure electrics and fuel-cell EVs – will grow from about 2.5 percent of the total market in 2011 to 6.3 percent in 2015 with total sales of over 900,000 units. The regular hybrids, led by Toyota, Ford, Nissan and Honda, will remain most prevalent in both number of vehicle offerings and volume (approximately 55 percent of projected volume); with plug-in hybrids and full electrics each representing about 20 percent of projected volume.



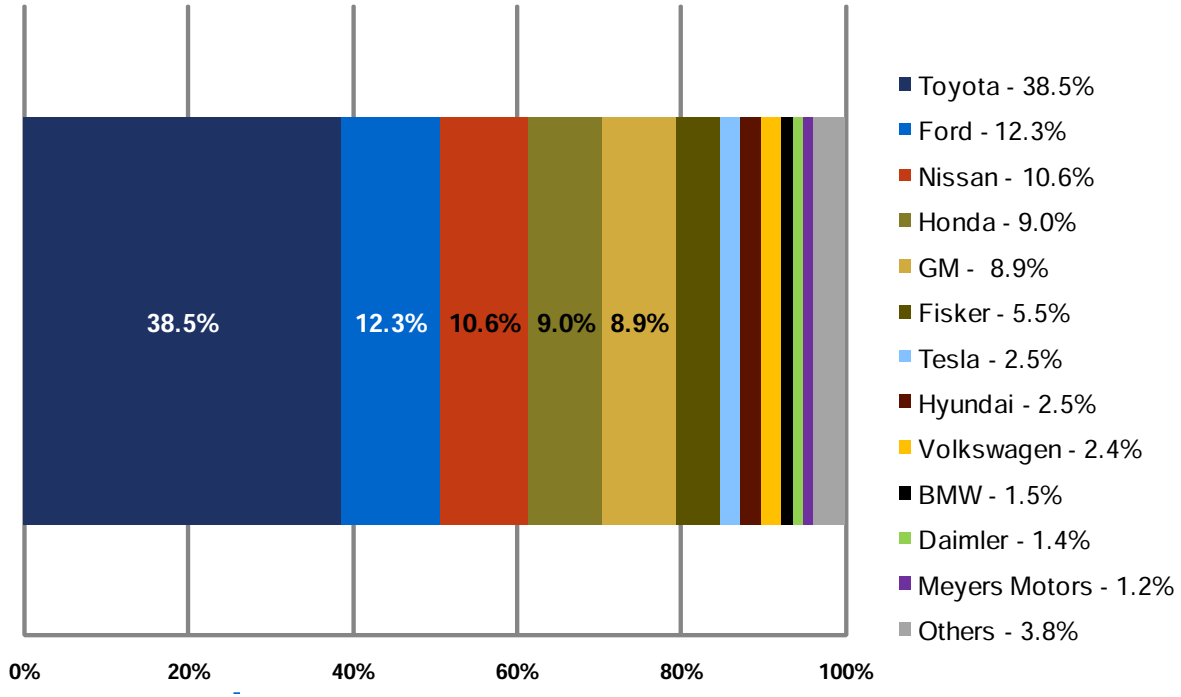
Source: Ceres/Citi Investment, March 2011

Electric Vehicle Sales, Market Share by Company for 2015

(% share)

Beyond the mainstream automakers, a variety of start-ups are active in the marketplace; however, it is a handful of the more established manufacturers that are expected to lead. Toyota is expected to be behind nearly 4 in 10 EVs sold, with 38.5 percent share while Ford is forecast to command 12.3 percent of the market.

The rest of the top 5 leaders are each expected to sell about 1 of every ten EVs. Other manufacturers are looking at sales of just a few of every hundred cars.



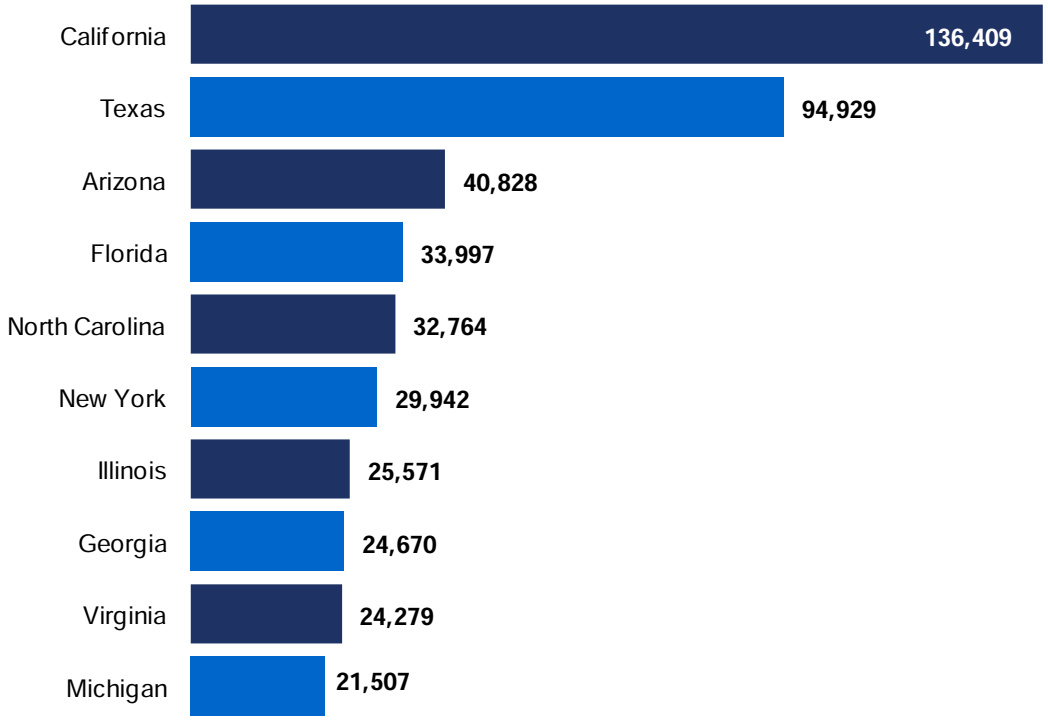
Source: Ceres/Citi Investment, March 2011

Alternative Fuel Vehicles, State Ranking by Fleet Size, 2009

(no. of vehicles)

EIA esti ates that the total inventor of alternative fuel vehicles (AFVs) in fleets in 200 was a out 2 , 1 , u a out ercent fro 200 . es ite this growth, the availa ilit of otential AFVs does not e uate to actual use of AFVs ecause of uneven access to transportation fuels, specifically for ethanol.

oughl half of the vehicles with eas access to alternative trans ortation fuels are part of fleets owned by Federal, State and local govern ents fuel roviders transit agencies or other rivate entities.



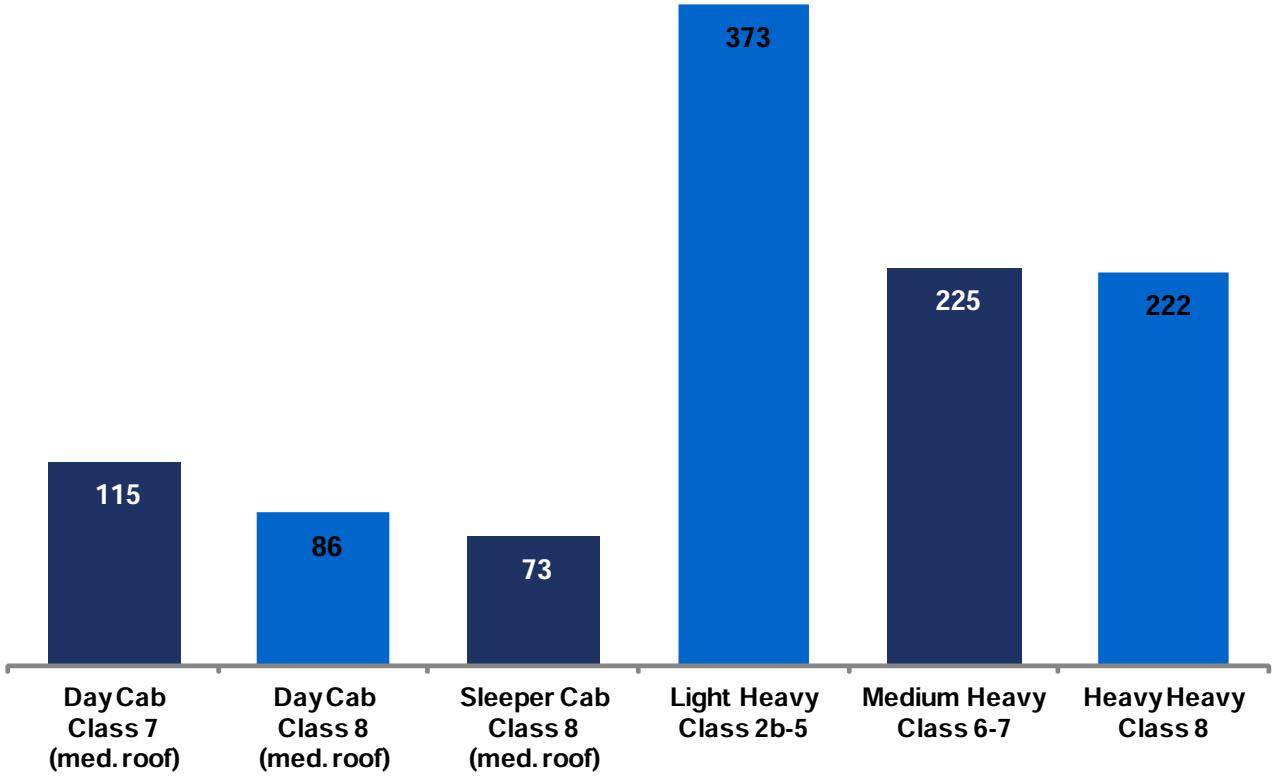
Source: EIA, August 2011

Heavy Duty Truck Emissions Standards

(g CO2 /1,000 ton-mile)

The Heavy Duty National Program of emissions standards, launched in August 2011, generally covers vehicles with gross weight at or above 8,500 pounds, as well as the engines that power them.

The standards are estimated to save approximately $50 billion in fuel costs over the life of the program, and reduce oil consumption by a projected 530 million barrels. GHG emissions are expected to be reduced by approximately 270 million metric tons.



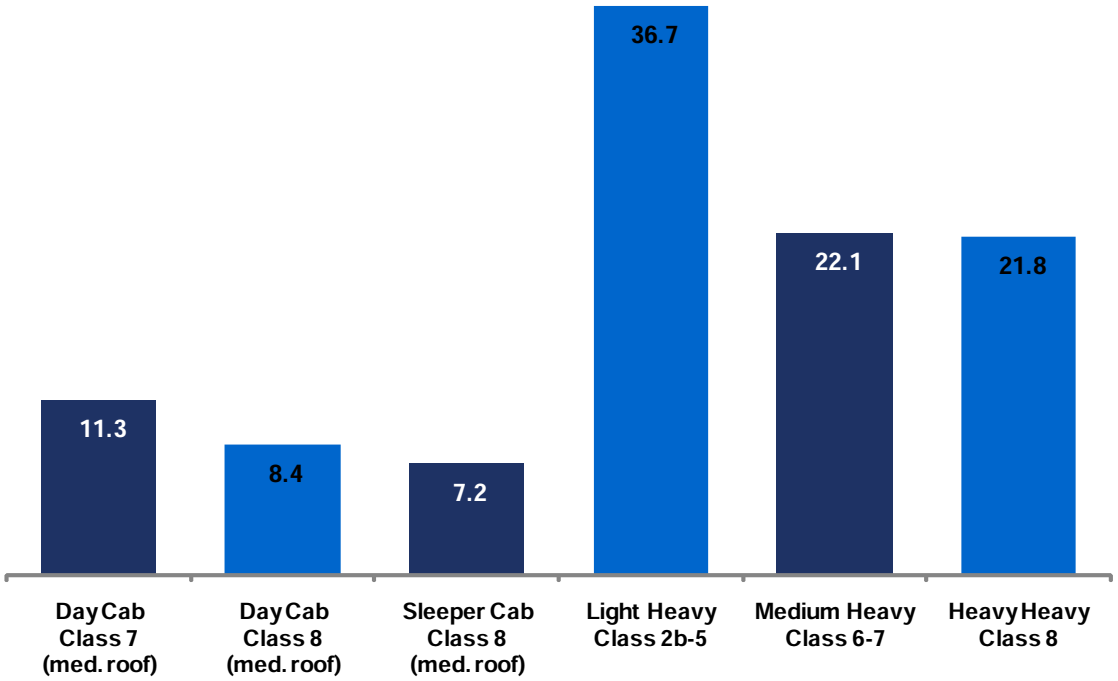
Source: EPA / NHTSA, August 2011

Heavy Duty Truck Fuel Consumption Standards

(gal/1,000 ton-mile)

T e Hea ut National Program o emissions stan ar s uses t o t es o metrics: a loa - e en ent gram er mile (an gallon er 100-mile) stan ar s or ic u s an ans an gram er ton-mile (an gallon er 1,000 ton-mile) stan ar s or ocational e icles an com ination tractors

T ese metrics account or t e act t at t e or to mo e ea ier loa s urns more uel, an emits more 2, t an oes mo ing lig ter loa s



Source: EPA / NHTSA, August 2011

Hybrid Truck Sales to Reach 100,000 per Year

4.7 Million total units by 2017 in the global truck market

$0.22 Current cost per mile for battery electric trucks

100,000 Number of hybrid electric, plug-in hybrid, battery electric, and plug-in electric medium and heavy-duty trucks forecast to be sold annually by 2017

$0.60 Cost per mile for hybrid trucks

3.6 Million kilowatt hours generated by lithium ion batteries in the medium and heavy-duty truck markets by 2017

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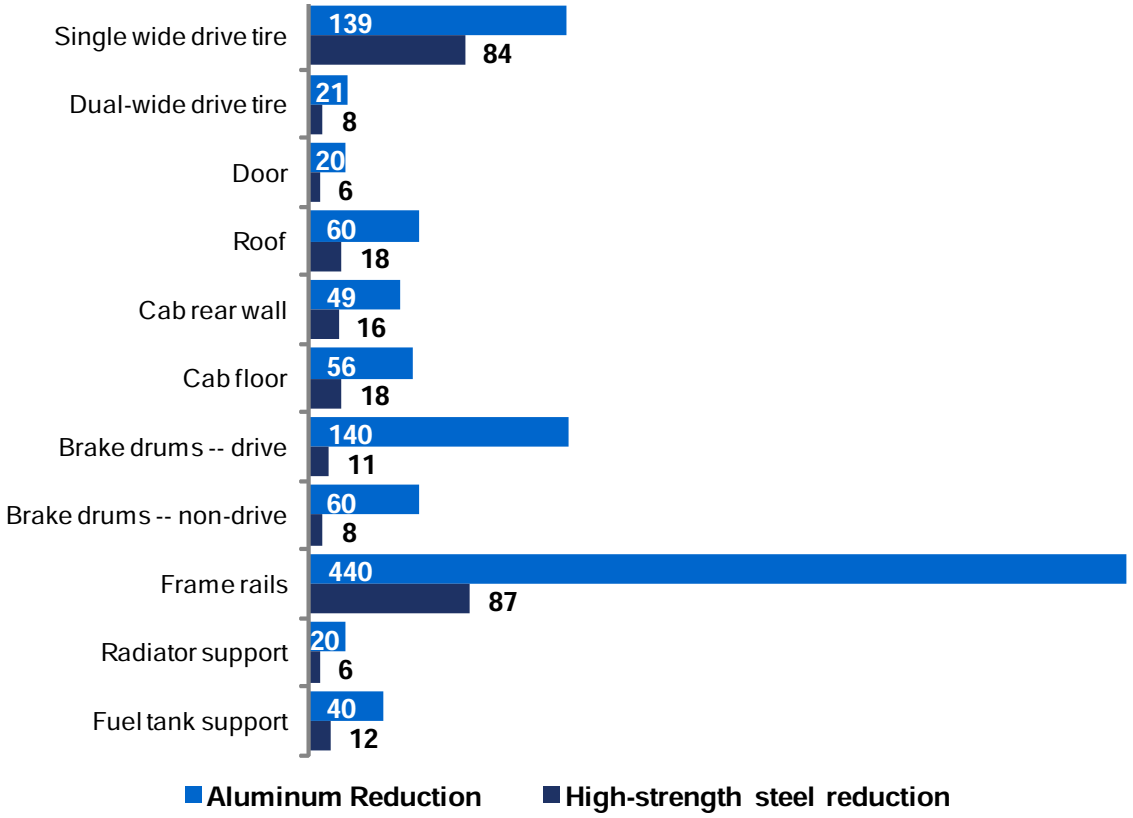
Source: Pike Research, September 2011

Potential of "Big Rig" Weight Reduction, By Truck Part

(lbs)

e luminum sso iation s luminum ransport roup report ig lig ted te nologies to redu e weig t on big rigs n average Class tru k uses more t an pounds of aluminum making up about four per ent of total tra tor weig t

reports t at t e D reviewed prospe tive lig tweig ting alternative materials and found t at aluminum as a potential to redu e mass b to per ent s well t e report noted opportunities to redu e mass b per ent t roug t e use of ig -strengt steel



Source: Aluminum Transportation Group/DOE, August 2011

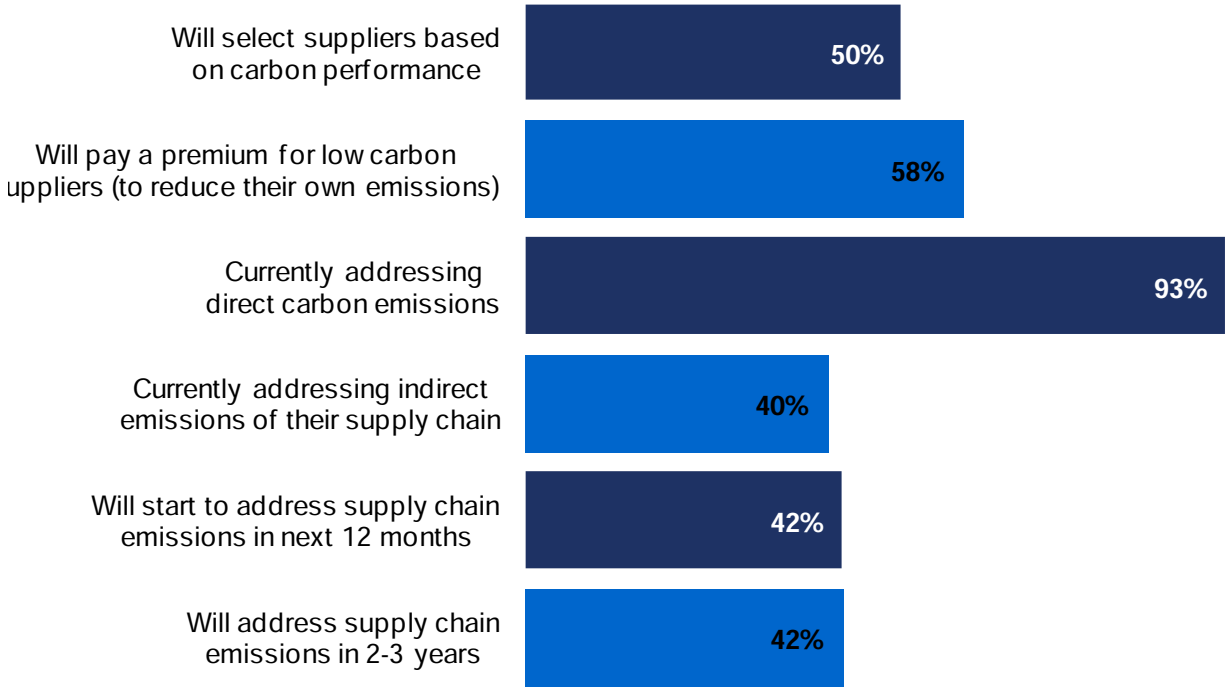
Multinationals Address Supply-Chain Carbon Emissions

(% of respondents)

he emissions generated by suppliers and customers in the de elopment and use of products and services are a significant contributor to company carbon footprints

n a sur ey of global business leaders Carbon rust found that 3 percent of multinationals are currently addressing their own (direct) carbon emissions

percent are already addressing the (indirect) carbon emissions of their supply chain 2 percent of companies that are not addressing supply chain emissions will do so within the next 12 months

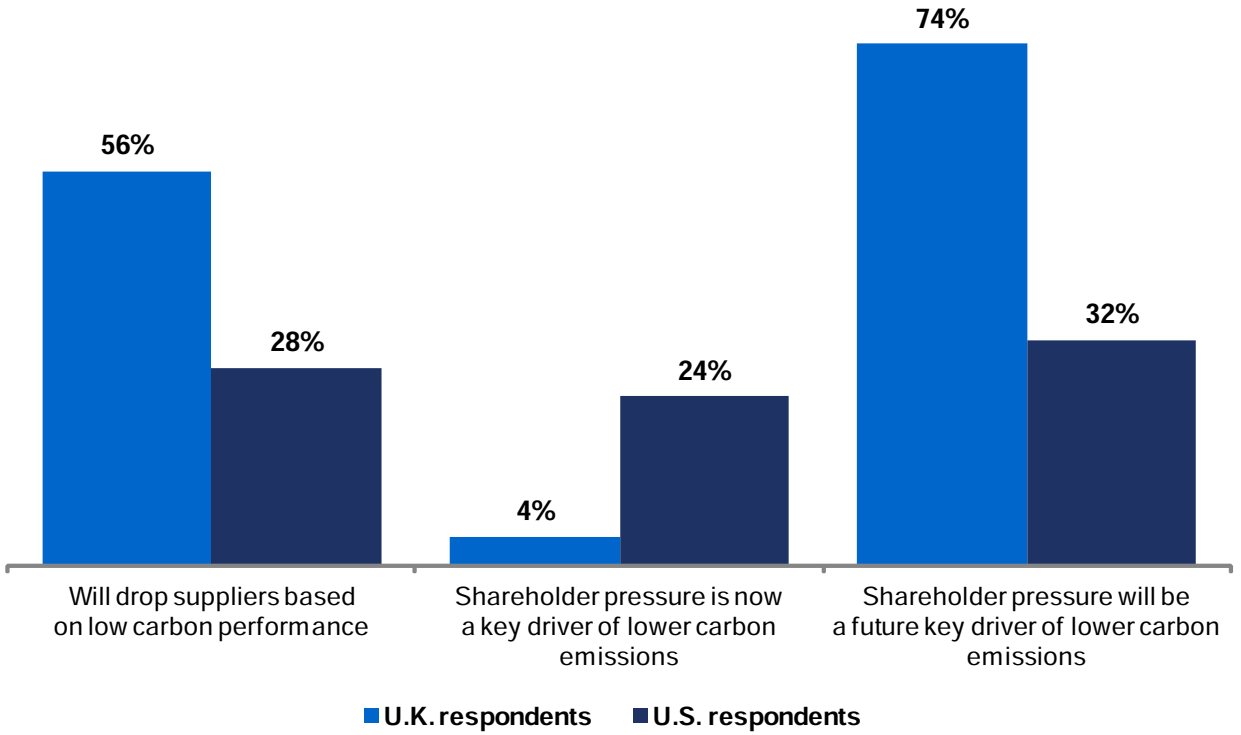


Source: Carbon Trust Advisory, September 2011

U.S., U.K. Approach to Supply Chain Emissions

(% of respondents)

There are stark differences in the attitudes of U.K. and U.S. decision makers towards carbon in the supply chain. In the U.K., companies are twice as likely to drop suppliers based on low carbon performance, but just a sixth as likely to say that shareholder pressure is a key driver of emissions cuts. That trend is set to reverse, however, as U.K. companies are more than twice as likely to say that shareholder pressure will be a key driver in the future.



Source: Carbon Trust Advisory, September 2011

emissions & climate

2010: Biggest Jump in CO2 Emissions Since 1988

213 - - - - - Million metric tons increase from 2009 to 2010: the largest absolute increase in energy-related carbon dioxide emissions in the United States since 1988.

3.9 - - - - - Percentage year over year, also the largest increase since 1988.

0.9+2.1+0.7+0.1 - - - The four factors: Population + Output per Capita + Energy Intensity + Carbon Intensity combined to yield an emissions increase of 3.9 percent (totals include rounding).

And? - - - It is difficult to draw conclusions from one year of data. Just as 2009 was an atypical year (when emissions fell by over 7 percent) in terms of magnitude of an emissions decline, 2010 likely does not signal a new trend in emissions growth, according to EIA.

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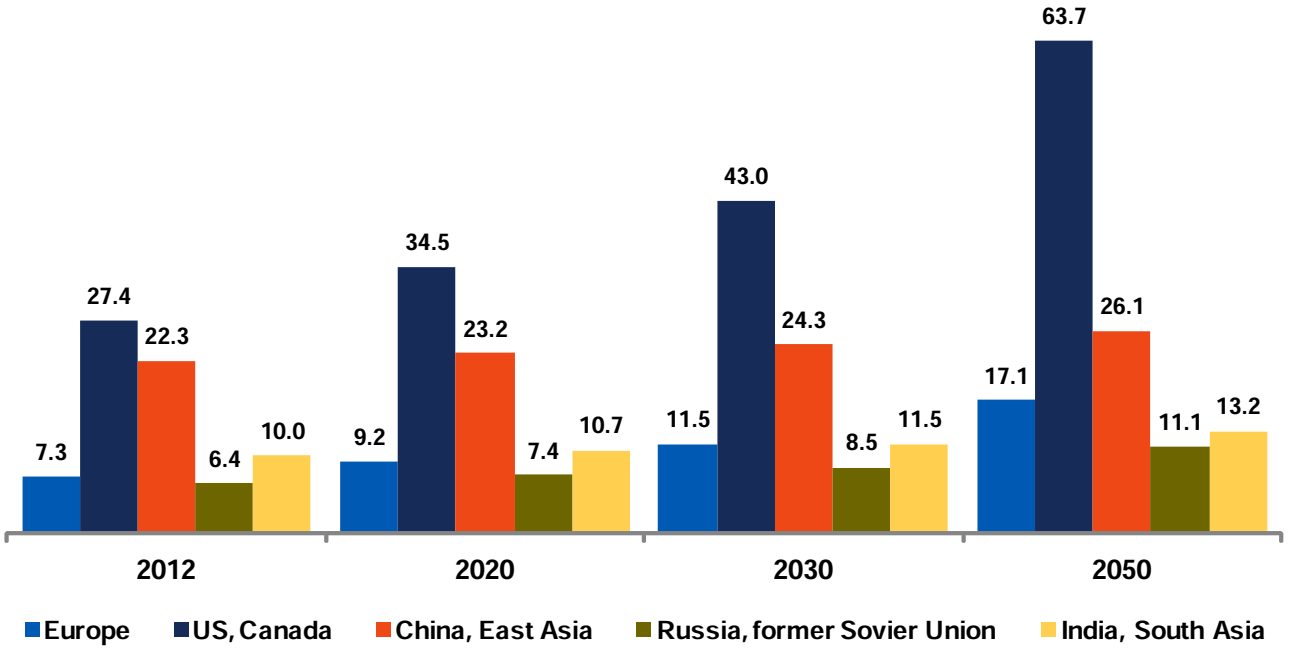
Source: EIA, August 2011

Cost of Climate Change, "Stern Action" Scenario, 2012-2050

(US$ billions)

The Stern Action scenario, named for the influential 2007 review by U.K. government advisor Nicholas Stern, advocates aggressive policy response and private-sector innovation, including the swift agreement on a global framework, coordinated international efforts, and a high degree of economic transformation.

Because the uncertainites are lower than for other scenarios, investors can make predictions with greater confidence, Mercer says, and this is, therefore, a lower risk model.



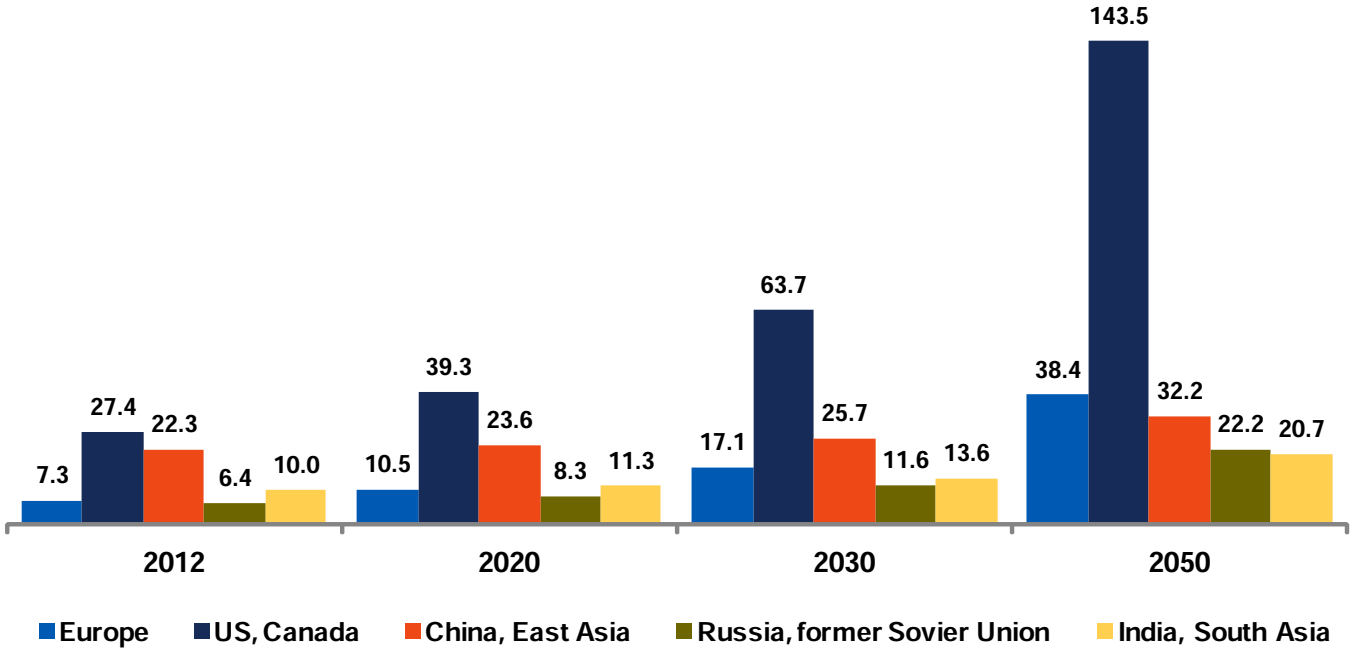
Source: Mercer, June 2011

Climate Change "Climate Breakdown" Scenario, 2012-2050

(US$ billions)

The Climate Breakdown scenario assumes the status quo in terms of policy, business and consumer behavior, i.e., continued reliance on fossil fuel, continued high carbon emission, and little economic transformation.

The scenario brings potentially very high risks for investors over the long term, particularly for regions, assets and sectors that are most sensitive to the physical impacts of climate change.



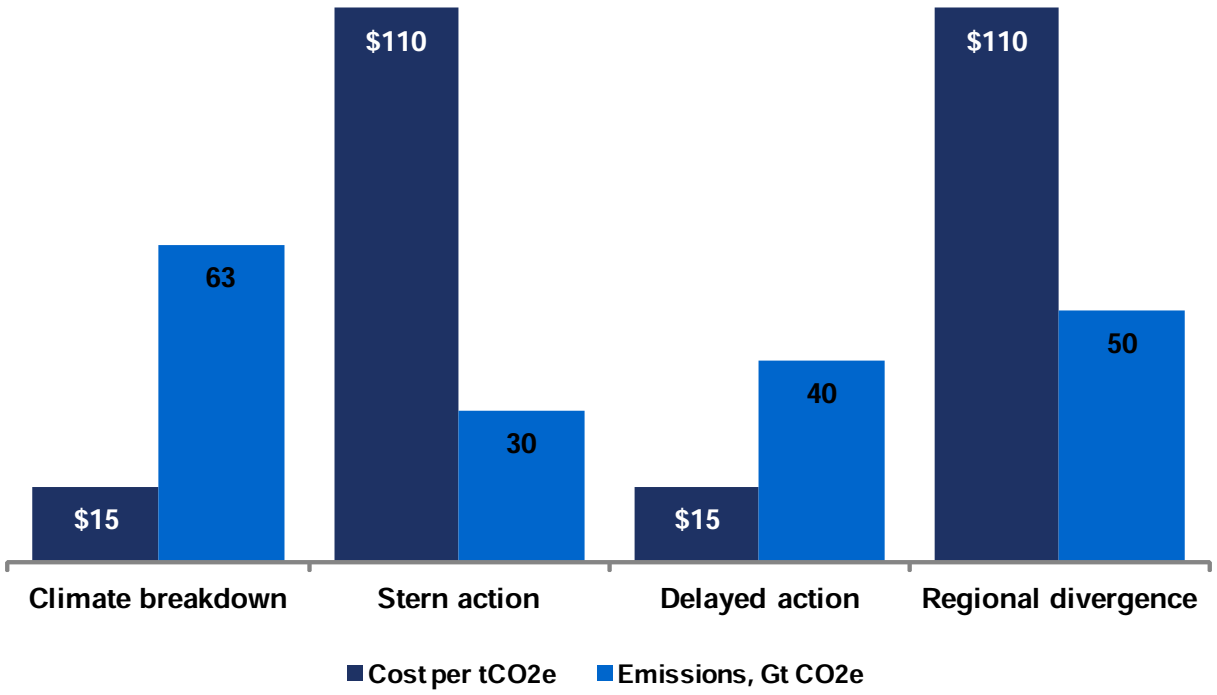
Source: Mercer, June 2011

Cost of Carbon and Emission Levels in 2030

(US$, cost per tCO2e / estimated emissions Gt CO2e)

According to analysis from Mercer, carbon prices are expected to increase rapidly after 2030. Prices accelerate because of limited technology options and substitution possibilities within the energy sector later, and because cheaper options are exhausted early on.

The report looks at four scenario to project carbon prices in 2030: climate breakdown, Stern Action, delayed action and regional divergence.



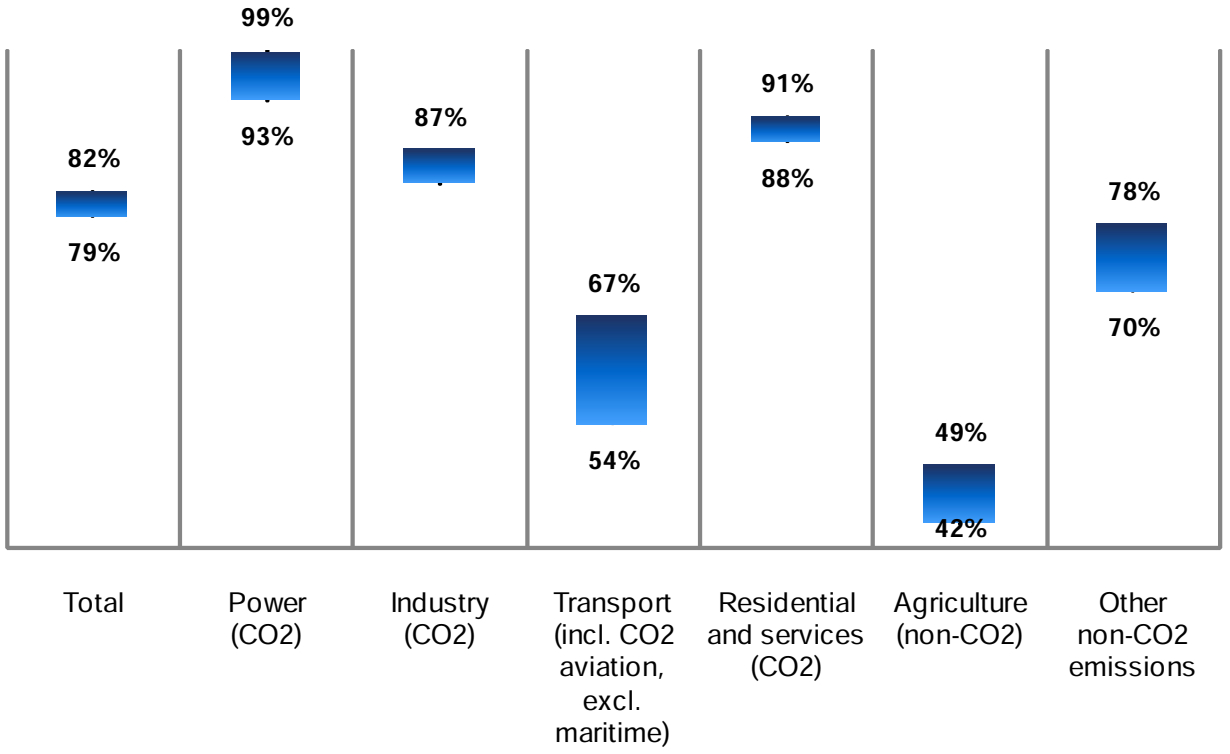
Source: Mercer, June 2011

EU Emission Reduction Targets by 2050

(% of emissions reductions, from 1990 baseline)

Electricity will play a central role in the low carbon economy, according to the European Commission. Its analysis shows that the EU can almost totally eliminate CO2 emissions by 2050, and offers the prospect of partially replacing fossil fuels in transport and heating.

The share of low carbon technologies in the electricity mix is estimated to increase from around 45 percent today to around 60 percent in 2020, to 75-80 percent in 2030, and to nearly 100 percent in 2050.



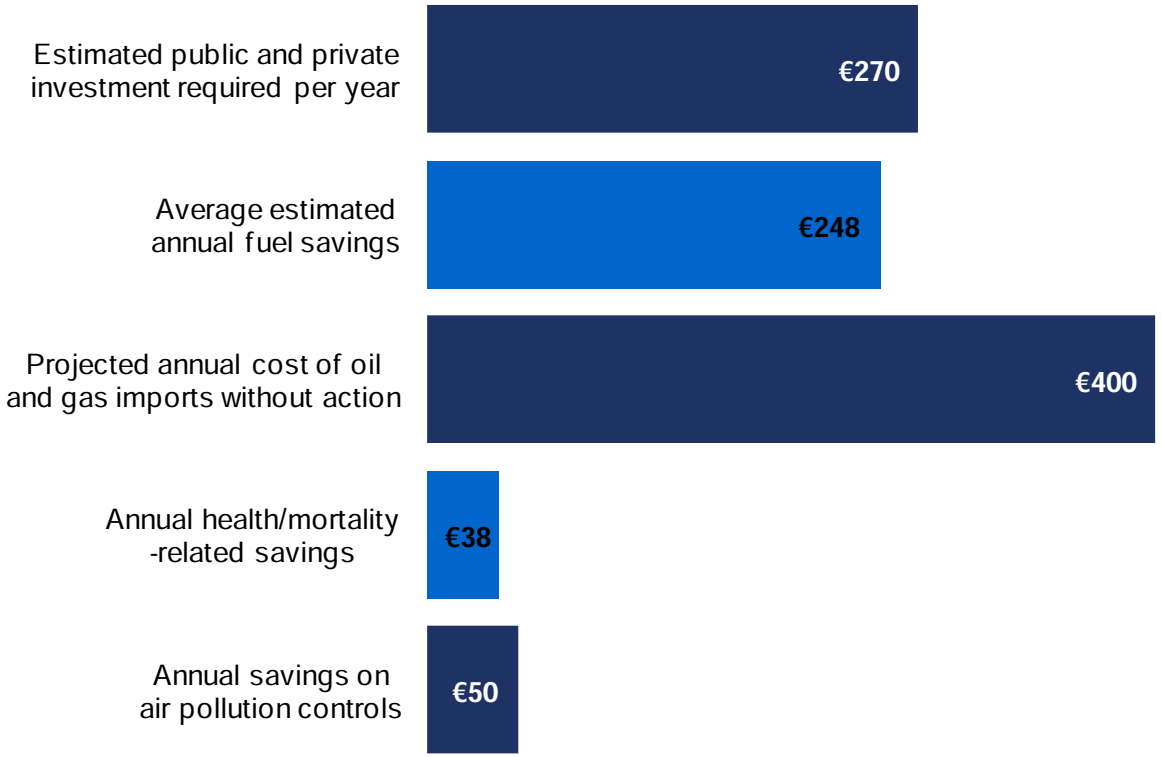
Source: European Commission, August 2011

Benefits of EU 2050 Emission Reduction Targets

(billions of euro)

Looking at the 40-year period of the study (see previous page), the European Commission estimated that driving factors of the reduction achievement – energy efficiency and the switch to domestically produced low carbon energy sources – will reduce the EU's average fuel costs by between €175 billion and €320 billion per year.

GHG reductions and air quality measures would bring roughly 65 percent lower levels of air pollution in 2030 compared to 2005. In 2030, annual costs of controlling traditional air pollutants could be more than €10 billion lower, and in 2050 close to €50 billion could be saved every year.



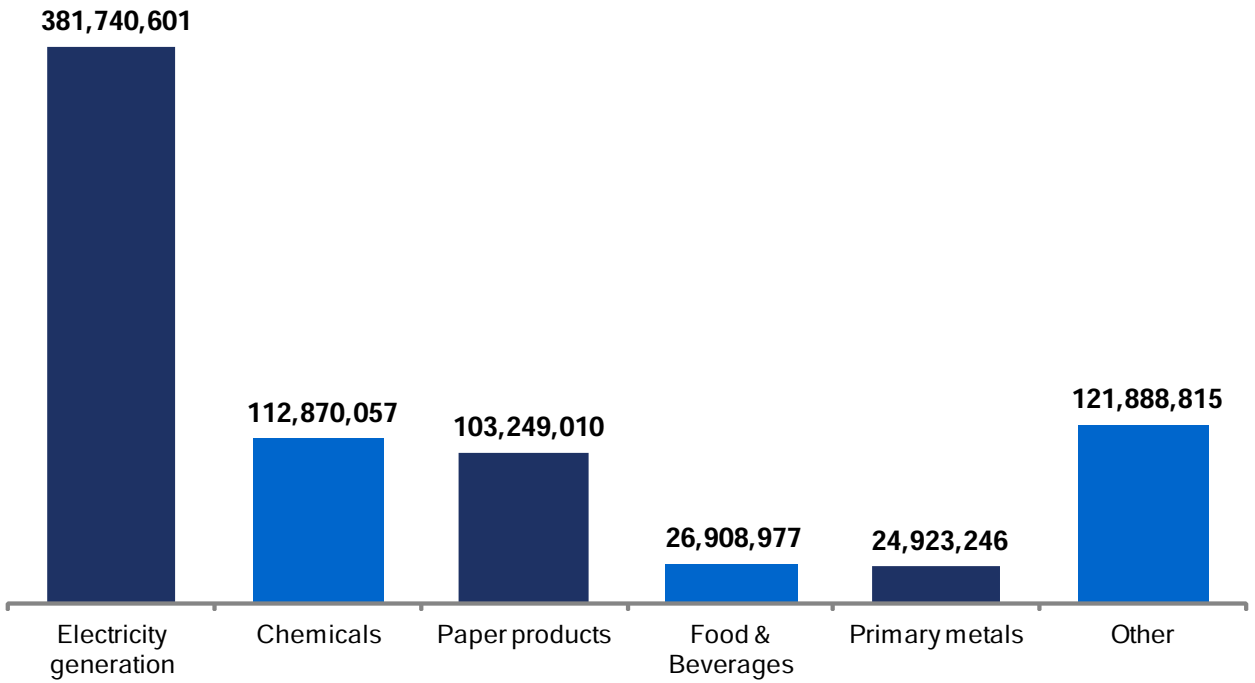
Source: European Commission, August 2011

U.S. Toxic Air Pollution by Sector, Totals Emitted in 2009

(lbs.)

The electric sector is the largest source of industrial (stack) emissions of toxic air pollution in the United States. In 2009, coal-and oil-fired power plants accounted for nearly 50 percent of all reported toxic pollution from industrial sources.

The next largest sector, chemical processing and manufacturing, emitted less than one-third of the electric sector's total. Power plants are the leading source of industrial toxic air pollution in 28 states and the District of Columbia.



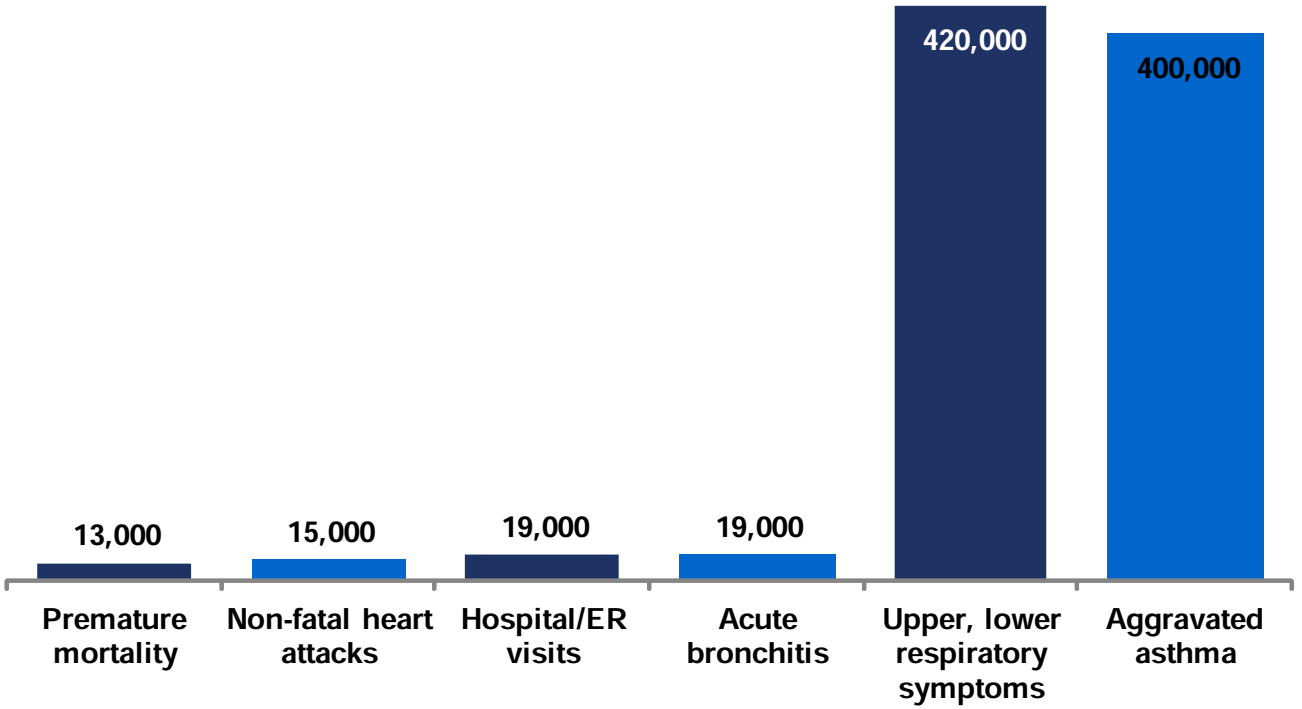
Source: Natural Resources Defense Council, July 2011

Adverse Health Effects Avoided by Air Pollution Rule

(estimated no. of cases annually)

In July 2011, the EPA finalized the Cross-State Air Pollution Rule (CSAPR), a regulations requiring 27 states to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states.

As part of ther assessment, the EPA found that the CSAPR will help avoid tens of thousands of premature deaths and illnesses, which it said will achieve hundreds of billions of dollars in public health benefits.



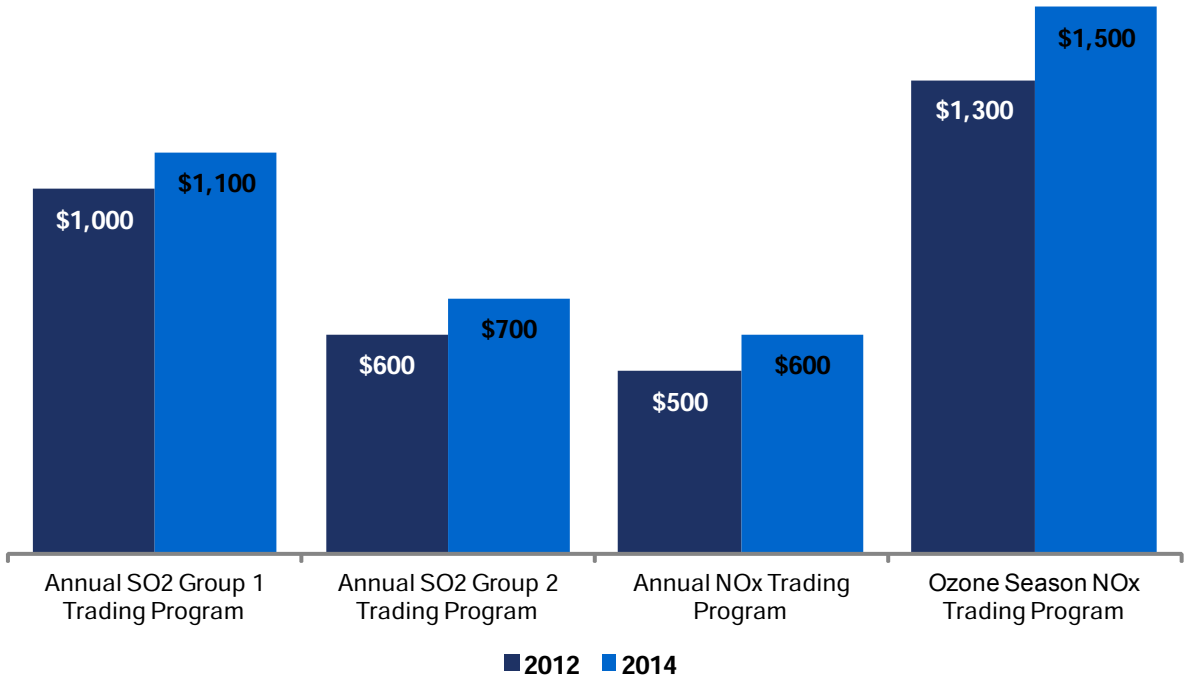
Source: EPA, July 2011

CSAPR Emissions Allowance Prices

(US$/ton, 2007 dollars)

The Cross-State Air Pollution Rule (CSAPR) allows air quality-assured allowance trading among power plants.

The allowance market infrastructure sets price-per-ton values from 2012 to 2014, for SO2 and NOx, ranging from $500 per ton to $1,500 per ton.



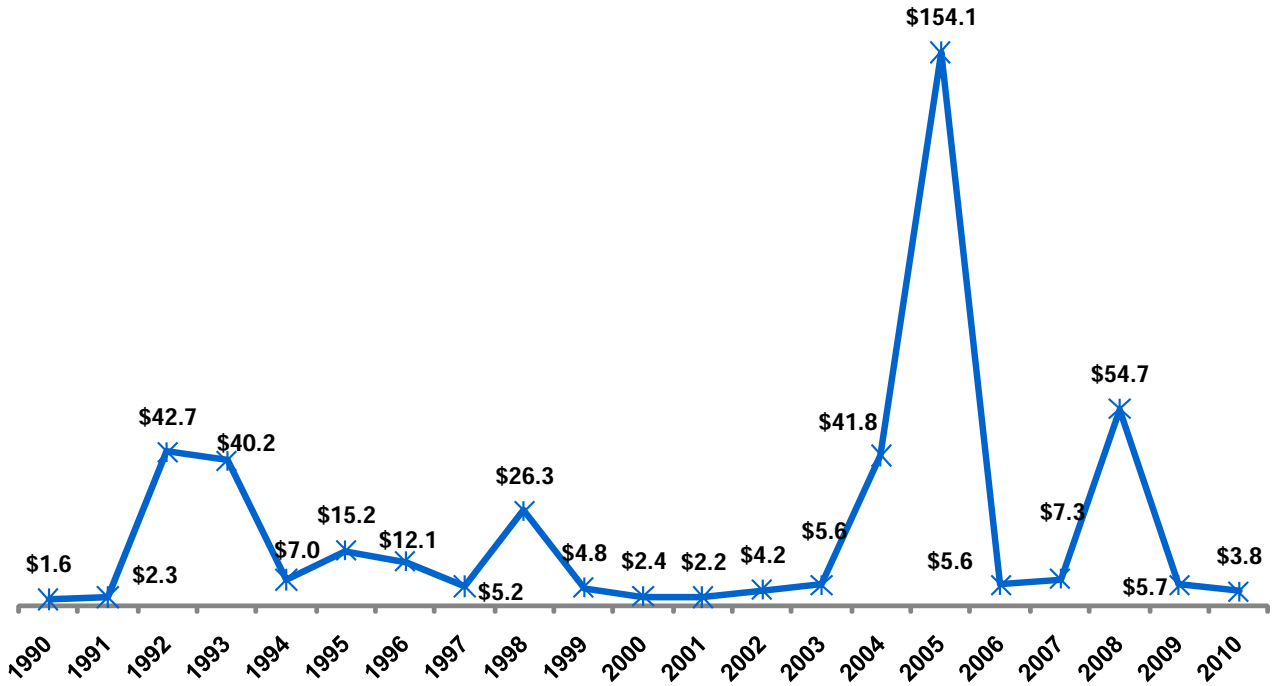
Source: EPA, July 2011

Cost of Billion-Dollar U.S. Weather Disasters, 1990-2011

(US$ billions, in 2007 dollars)

e U S sus ained ea er rela ed disas ers o er e 0 20 0 eriod in ic o erall da a es cos s reac ed or e ceeded $ billion e total normalized losses – i.e., insured and uninsured loss or e e en s e ceed $ billion, accordin o NOAA da a

e es o ea er disas ers a a e caused ese da a es include se ere unders or s, in er s or s, hurricanes, wildfires, flooding, and drou



Source: NOAA, June 2011

energy, capacity & resources

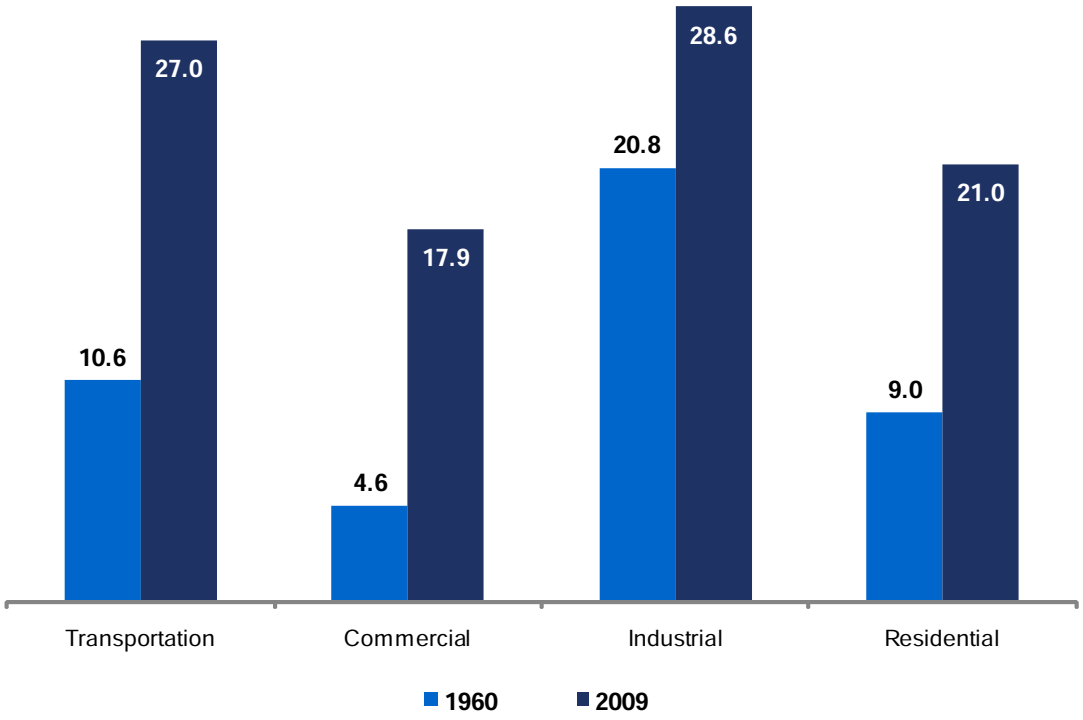
U.S. Energy Consumption by Sector, 2009

(trillion Btu)

U.S. energ consumption as more t an doubled since 1 0, according to EIA data.

Energ consumption or t e industrial sector totaled 2 . trillion tu in 200 , o e er, t is sector showed the least increase in the five decades, e panding b percent rom 20. trillion tu in 1 0. comparision, energ consumption in t e commercial sector increased b 2 0 percent.

Residential increased b more t an 130 percent in five decades, while the transportation sector e panded consumption b 1 percent.



Source: EIA SEDS, August 2011

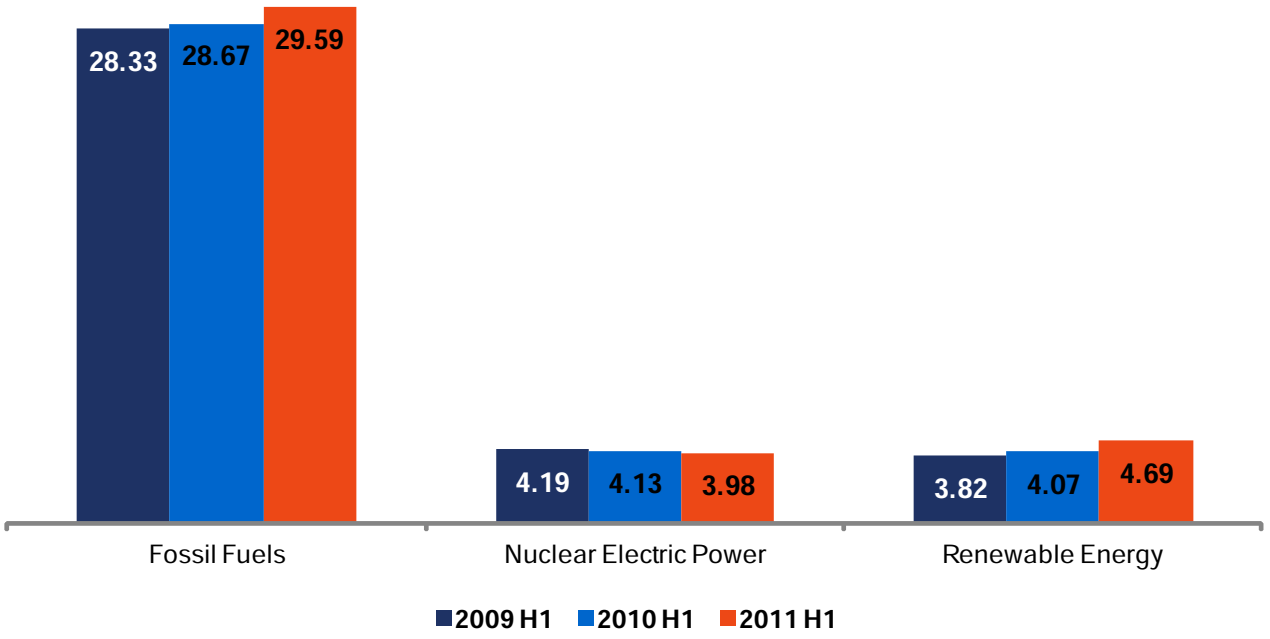
U.S. Renewable Energy Production Up 23% in Two Years

(quadrillion Btu)

oo ing at al year totals in roduction o renewable energy in t e S , E data s ows an increase o 22 ercent ro 1 200 to 1 2011

otal energy roduction increased by ercent

By co arison, S roduction o ossil uels or t e eriod 1 200 to 1 2011 increased only ercent, u ro 2 uadrillion Btu to 2 uadrillion Btu Nuclear electric ower roduction declined



Source: EIA, September 2011

U.S. Energy Consumption Increases 3.4% in 2009-2011

(quadrillion Btu)

n t e w ole in t e ast two years energy consu tion as increase by ercent ro ua rillion tu in to ua rillion tu in

Fossil uel energy o w ic in ua rillion tu were not ro uce re ains t e o inant su lier accounting or ercent o total consu tion

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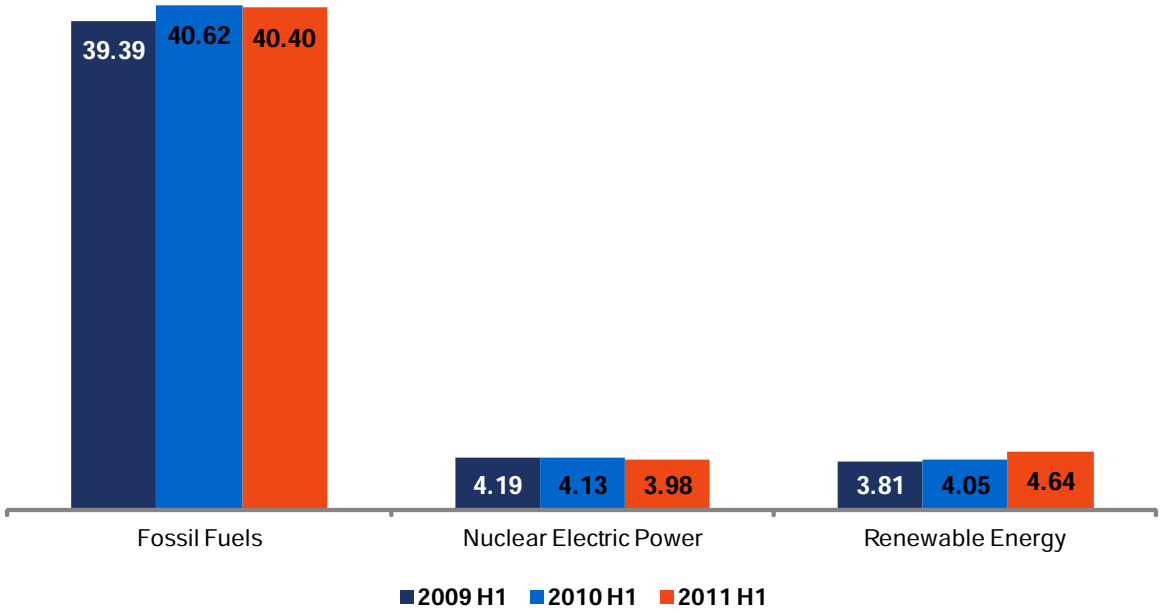


Source: EIA, September 2011

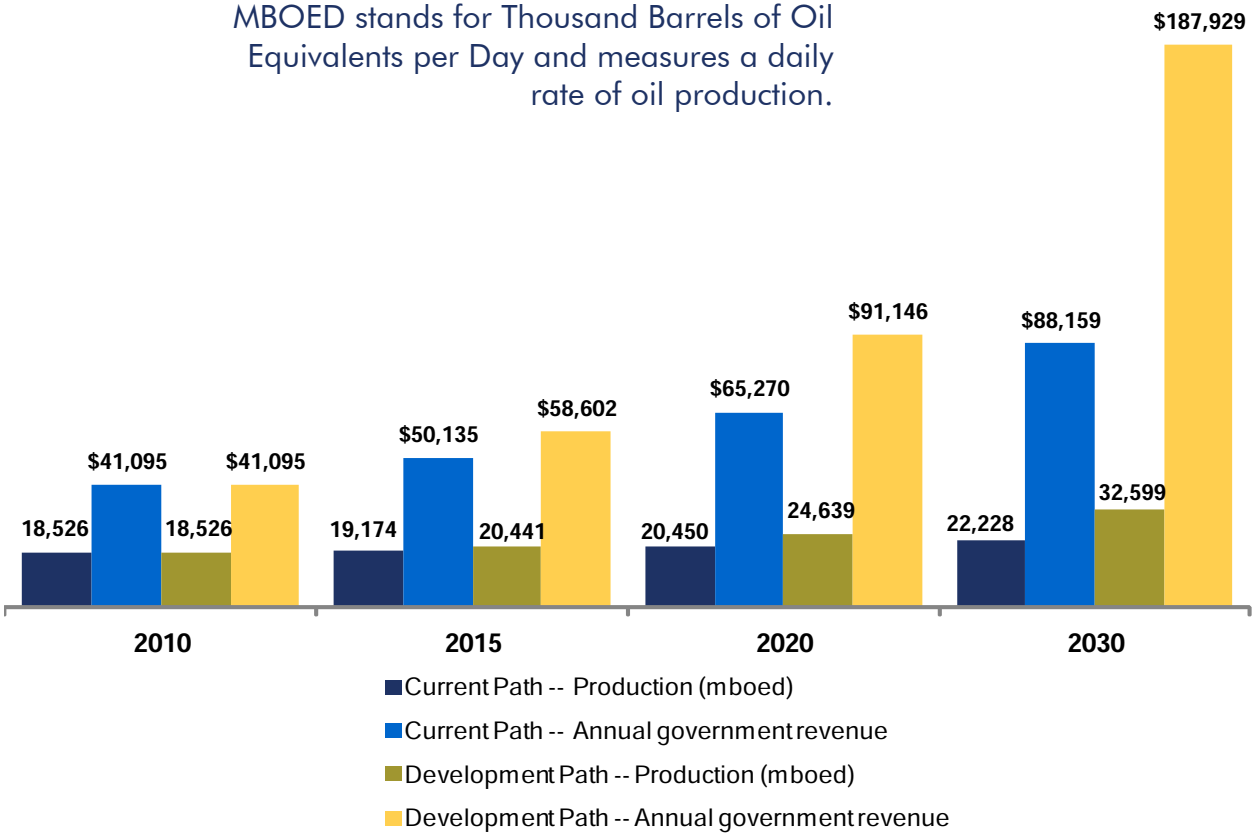
Capacity, Revenue from Increased Oil, Natural Gas Output

(MBOED / US$ millions)

Before looking more closely at the capacity potential of renewable resources (slides 36-45), there is research to consider from The American Petroleum Institute. Their analysis found that with U.S. policies encouraging the development of new and existing resources could result in, by 2030, increases domestic oil and natural gas production by over 10 million barrels of oil equivalent per day, and raise more than $800 billion of cumulative additional government revenue.

According to the API, continuing the current path of policies will likely have a detrimental effect on production, jobs, and government revenues.

MBOED stands for Thousand Barrels of Oil Equivalents per Day and measures a daily rate of oil production.



Source: American Petroleum Institute, September 2011

Renewables Add 2,853 MW of Capacity in H1 2011

(MW)

From January to June 2011, 162 e ectr c ower ge erators were a e states, or a tota o 11,2 egawatts (M) o ew ca ac t .

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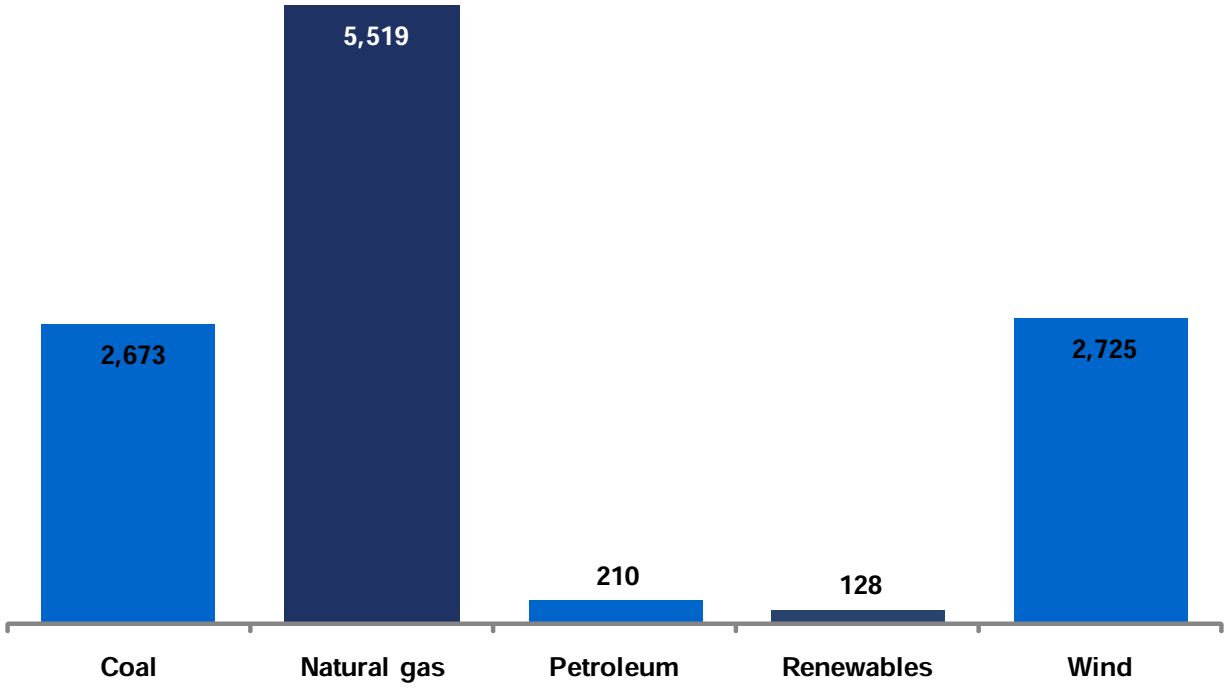
e ge out coa at 2, 2 M o a to a ge erat g ca ac t w e ot er re ewa es a e a e 12 M o ew ca ac t .



Source: EIA, August 2011

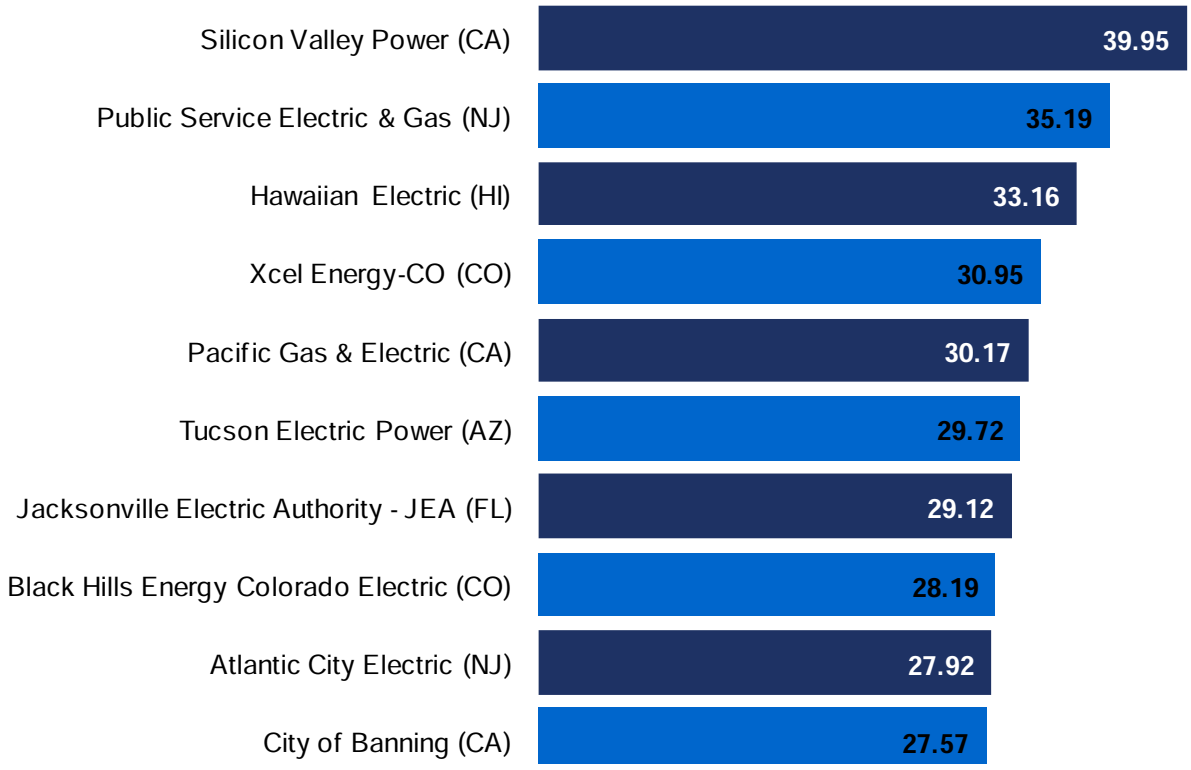
Top 10 Utilities by Annual Solar Watts-per-Customer

(ranked by annual watts-per-customer (w/c))

SEPA s annual rankings include new solar pro ects installed in 2010, accounting for large and small solar pro ects owned by customers, solar companies, or the utilities that are integrated into the utility s grid

Overall, the median watts-per-customer for the Top 10 utilities increased by 0 percent, from 20 to nearly 0 watts-per-customer between 200 and 2010

Silicon Valley Power (CA) ranked first nationally with nearly 0 watts-per-customer, followed by PSE&G (NJ) with 35.2 watts-per-customer



Source: Solar Electric Power Association (SEPA), June 2011

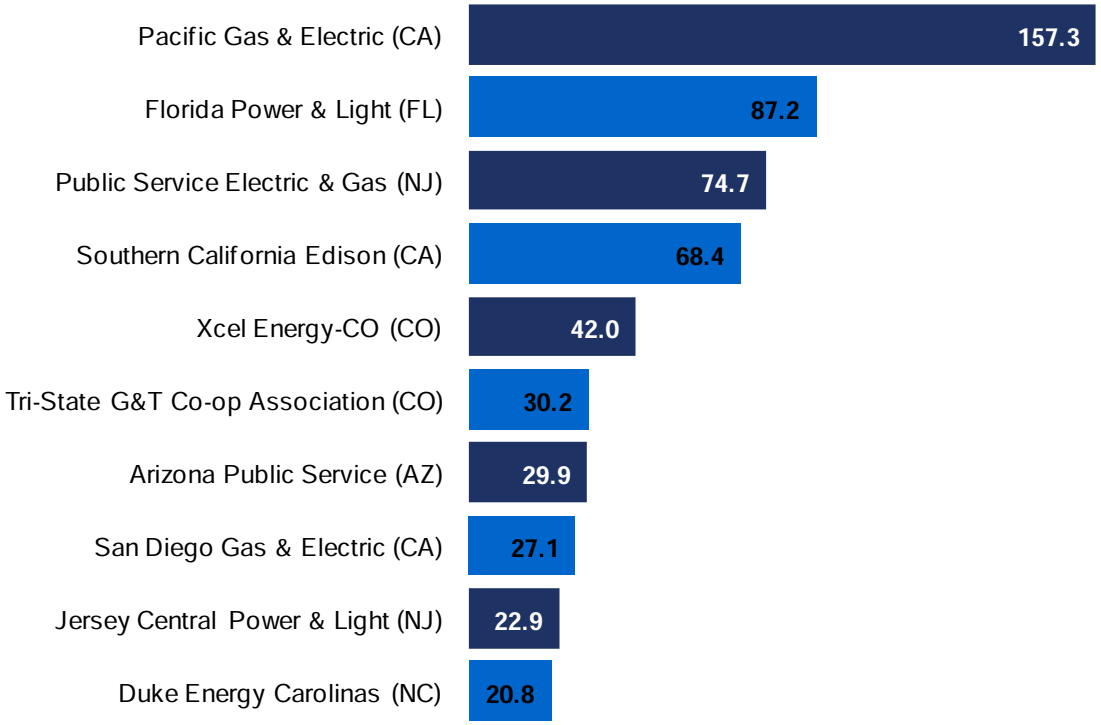
environmental LEADER ELPRO

Top 10 Utilities by Annual Solar Megawatts

(ranked by MW of newly installed solar power)

SEPA s ranking by MW of newly installed solar power put Pacific Gas and Electric (CA) in the top position, for the installation of 1 MW in 2010 PG&E s 2010 solar portfolio was about two-thirds distributed, custo er P pro ects, with ore than 10,000 pro ects totaling ore than 10 MW

Florida Power and Light (FL), the second ranked utility, installed MW, largely based on two utility-owned pro ects a 10-MW P pro ect at the ennedy Space Center and a -MW hybrid CSP power plant at a co - bined-cycle natural gas plant



Source: Solar Electric Power Association (SEPA), June 2011

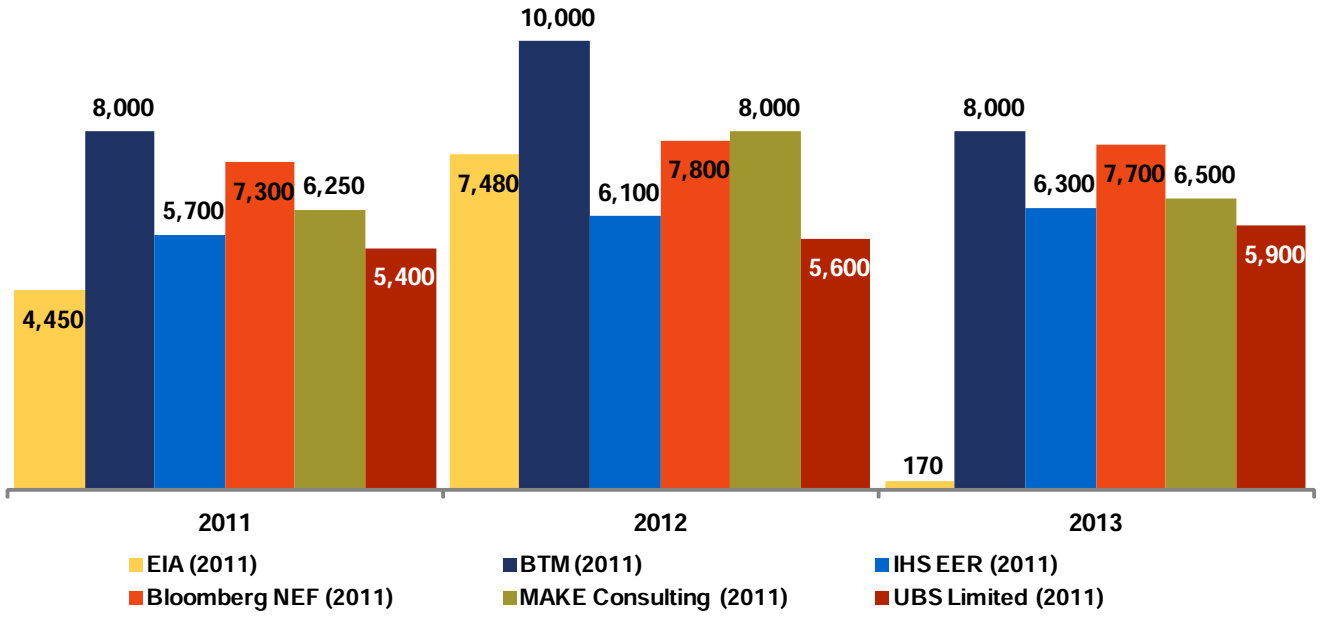
Forecasts for Annual U.S. Wind Capacity Additions

(MW)

A variety of forecasts place 2011 wind power installations in the range of 4,450-8,000 MW.

2012 predictions show growth in the range of 5,600-10,000 MW, as the cost of wind energy continues to decline and federal incentives remain in effect until the year's end.

Forecasts for 2013 span a wide range due to assumptions about an extension of federal incentives, but are weighed down by current policy uncertainty as well as the expected limited need for new electric capacity additions.



Source: U.S. DOE, June 2011

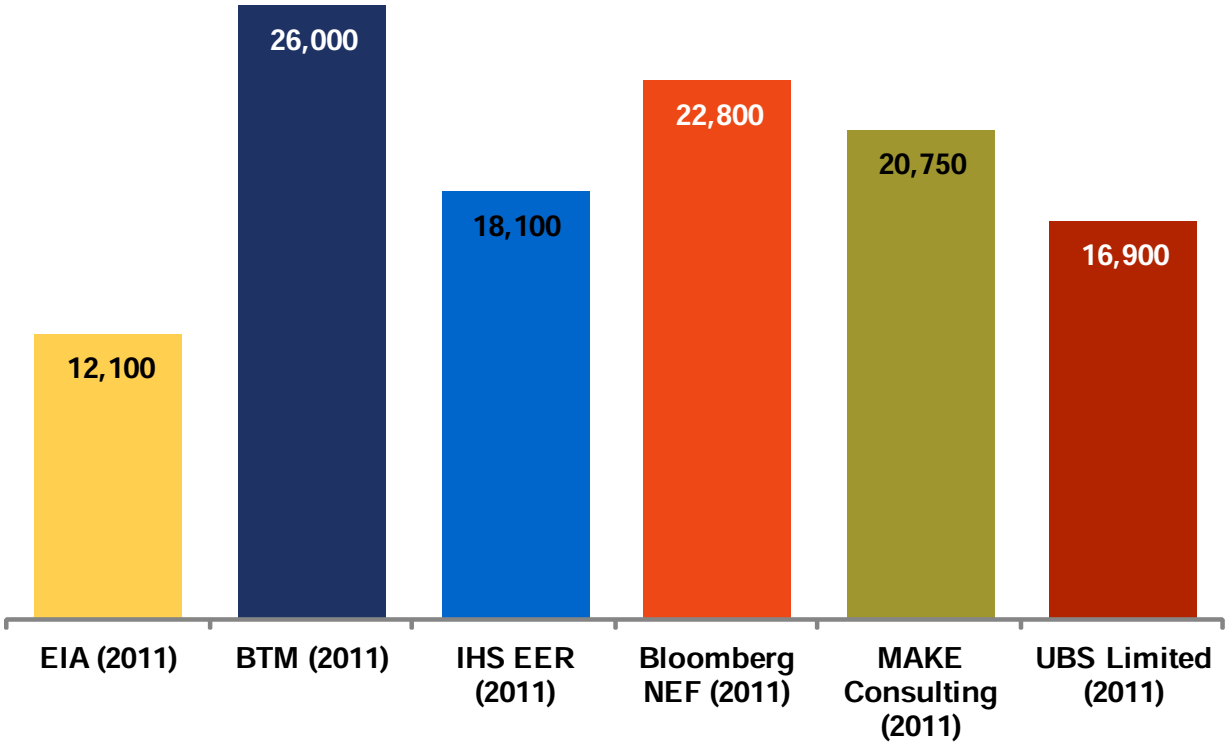
environmental LEADER ELPRO

Cumulative Forecasts for Wind Capacity Additions to 2013

(MW)

In total, from 2011 through 2013, these forecasts predict cumulative wind power additions of 12,100 to 26,000 MW; this amount of new wind power capacity would be capable of providing roughly 30-60 percent of EIA's projected growth in total U.S. electricity demand over the 2011-2014 timeframe.

In forecasting about 12,000 MW, EIA has by far the most conservative estimation of growth in wind capacity – very roughly half of what BTM and Bloomberg NEF forecast.



Source: U.S. DOE, June 2011

environmental LEADER ELPRO

U.S. Solar PV Installations, 2005 to Q1 2011

(MWdc)

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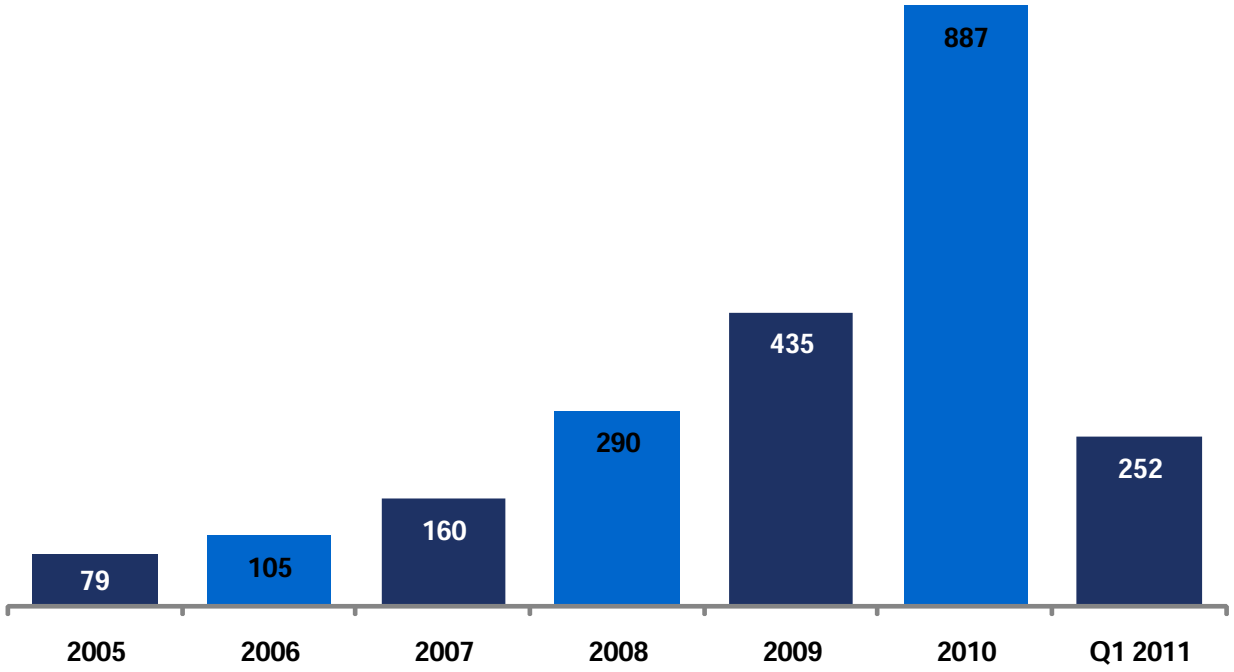

Source: Solar Energy Industries Association (SEIA), June 2011

National Weighted Average Solar System Prices

($/Wdc)

National eig ted-a erage syste
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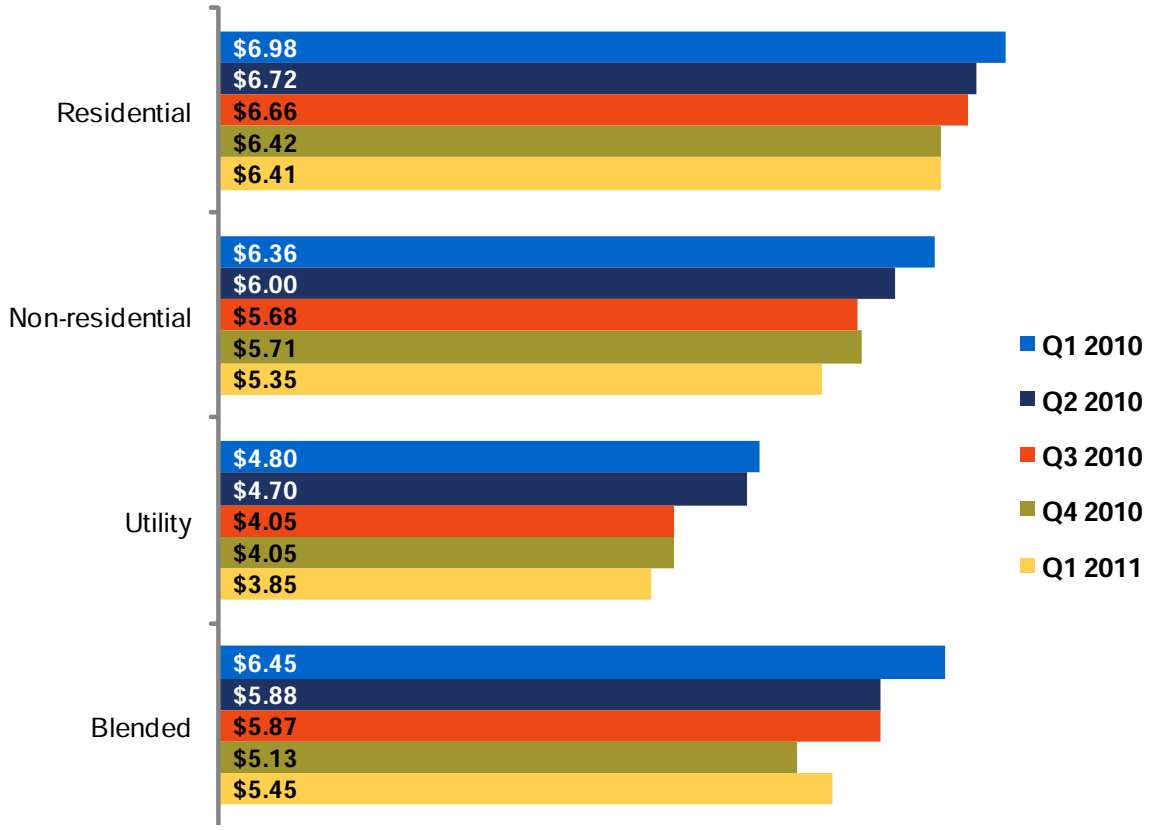


Source: Solar Energy Industries Association (SEIA), June 2011

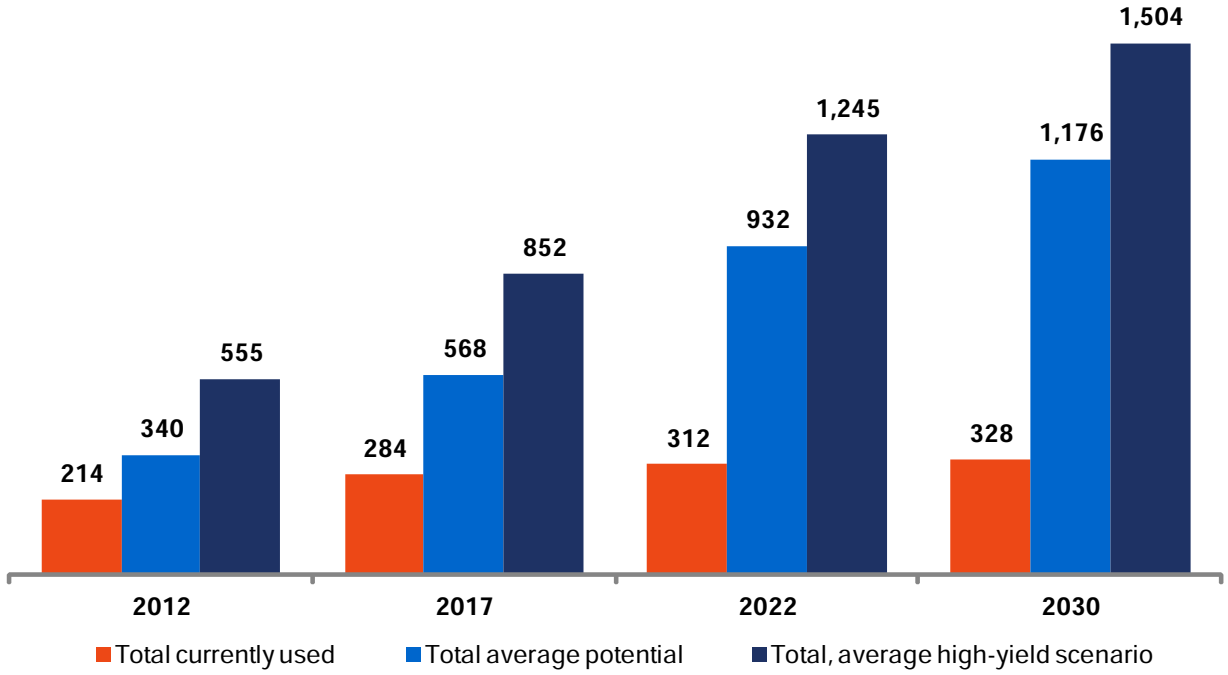
Total Biomass, Current and Projected, 2012-2030

(million dry tons)

The DOE s S illion-Ton pdate e a ines ho the country could produce one illion dry tons o sustaina le io ass annually, to displace 0 percent or ore o the nation s petroleu consu ption

The io ass as pro ected to e availa le around id-century hen large-scale biorefineries are likely to exist.

The study emphasized, as primary sources, orest- and agriculture-derived thinnings, crop residues, and perennially gro n grasses and trees sources ith the greatest potential to supply large, relia le and sustaina le uantities o io ass



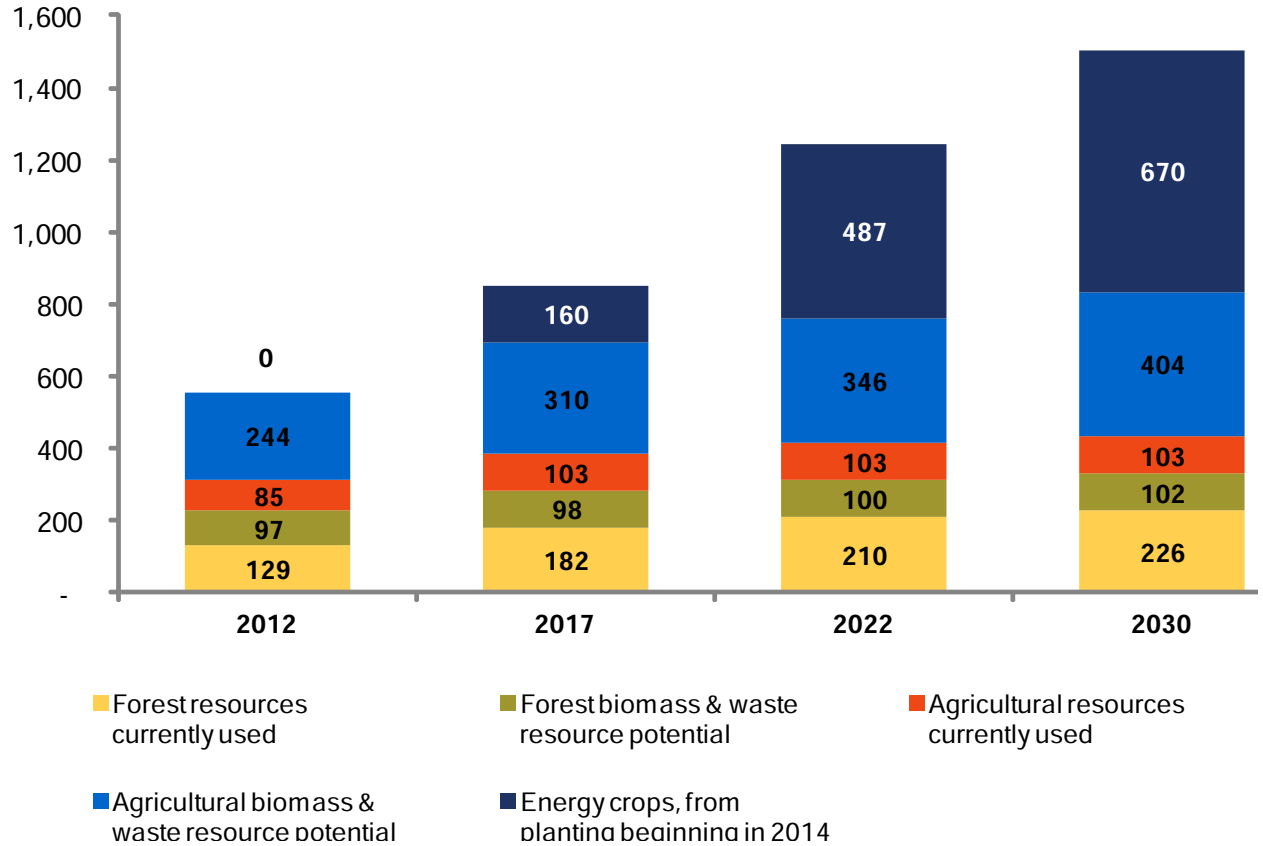
Source: S DOE, August 2011

Forest & Agriculture Biomass Source, High-Yield Scenario

(million dry tons)

nder DOE s ig -yield scenario, t e largest resource for sustainable biomass is energy crops, planted beginning in 2014, to produce 6 0 million dry tons by 20 0, or about 4 percent of t e 1 billion dry tons of t e ig -yield scenario total

Agricultural biomass and waste resource is seen to a e t e potential to contribute 404 million dry tons by 20 0 for an additional 2 percent of t e total



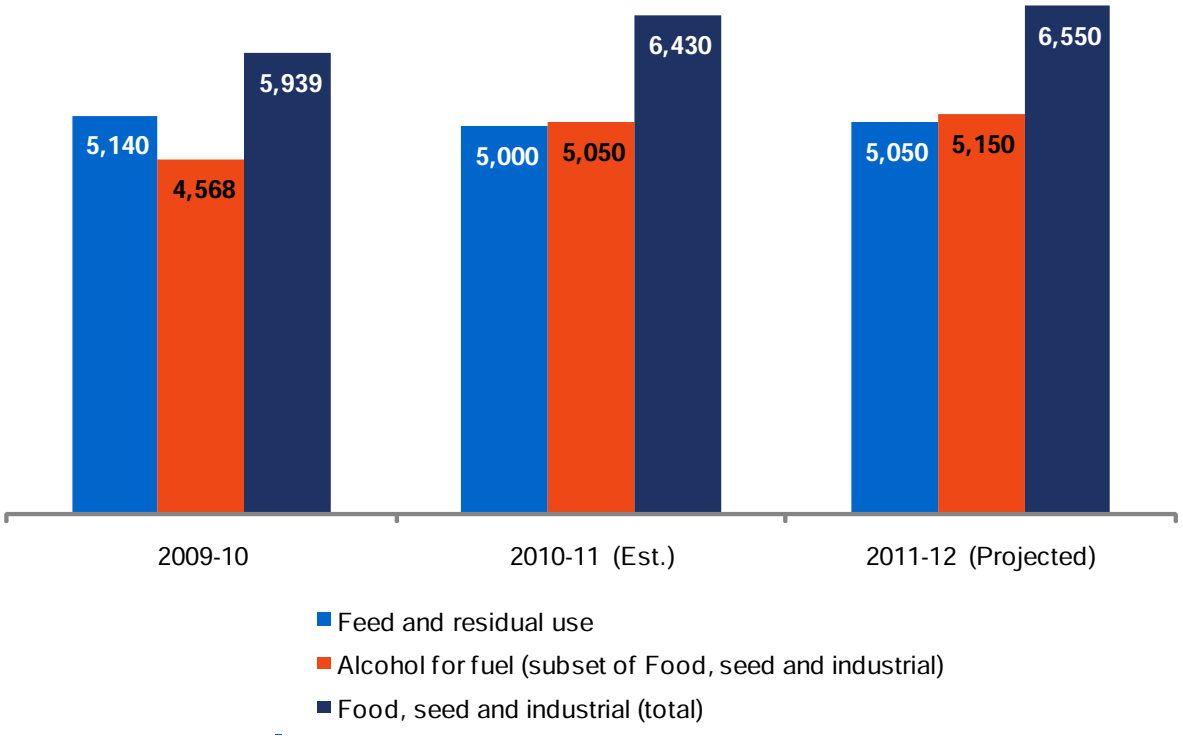
Source: U.S. DOE, August 2011

U.S. Corn Supply and Use

(million bushels)

he orld A ricultural Su ly and De and Esti ates (ASDE) fro USDA redict that billion bushels of corn ill be used for feed and related ur oses in the 2010 2011 cro year, hile .0 billion bushels ill be used for ethanol and by roducts.

Accordin to the ational hic en ouncil, this is the first time the government has predicted that ore corn ill be used for otor fuel than for ani al feed. n 2011 2012 .0 billion bushels ill be used for feed and .1 billion bushels o into the ethanol cate ory, the USDA rojected.



Source: USDA, July 2011

"Green" Earning Potential for the Electric Utility Industry

(% of respondents)

Black & Veatch's fifth annual industry survey aims to examine the changing attitudes and priorities of North American utilities.

The majority of respondents, approximately three-fifths, feel there are opportunities to make money in "green" areas. About 13 percent see significant opportunities now; 22 percent see limited opportunites now that will grow in significance, and 25 percent see opportunities, but only with regulatory support.

Source: Black & Veatch, July 2011

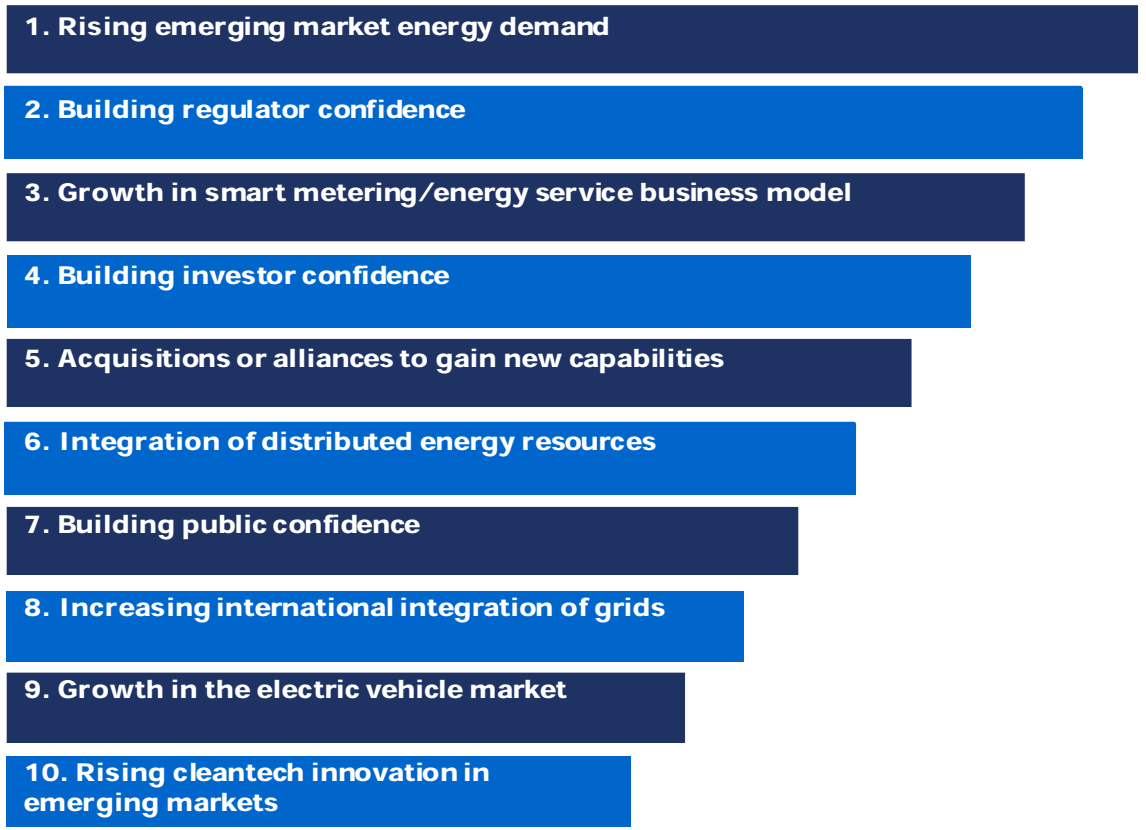
3 Green Opportunities in Top 10 for Power and Utilities

(ranking (illustrative), 1-10)

In terms of opportunities presented by sustainable energy initiatives to the power and utilities sector as a whole, the Ernst & Young ranking had three "greenies" on its list.

Identified as the third most important opportunity to the sector is "growth in smart metering/energy service business model."

"Growth in the electric vehicle market" was ranked ninth, and "Rising cleantech innovation in emerging markets" ranked tenth on the 2011 list.

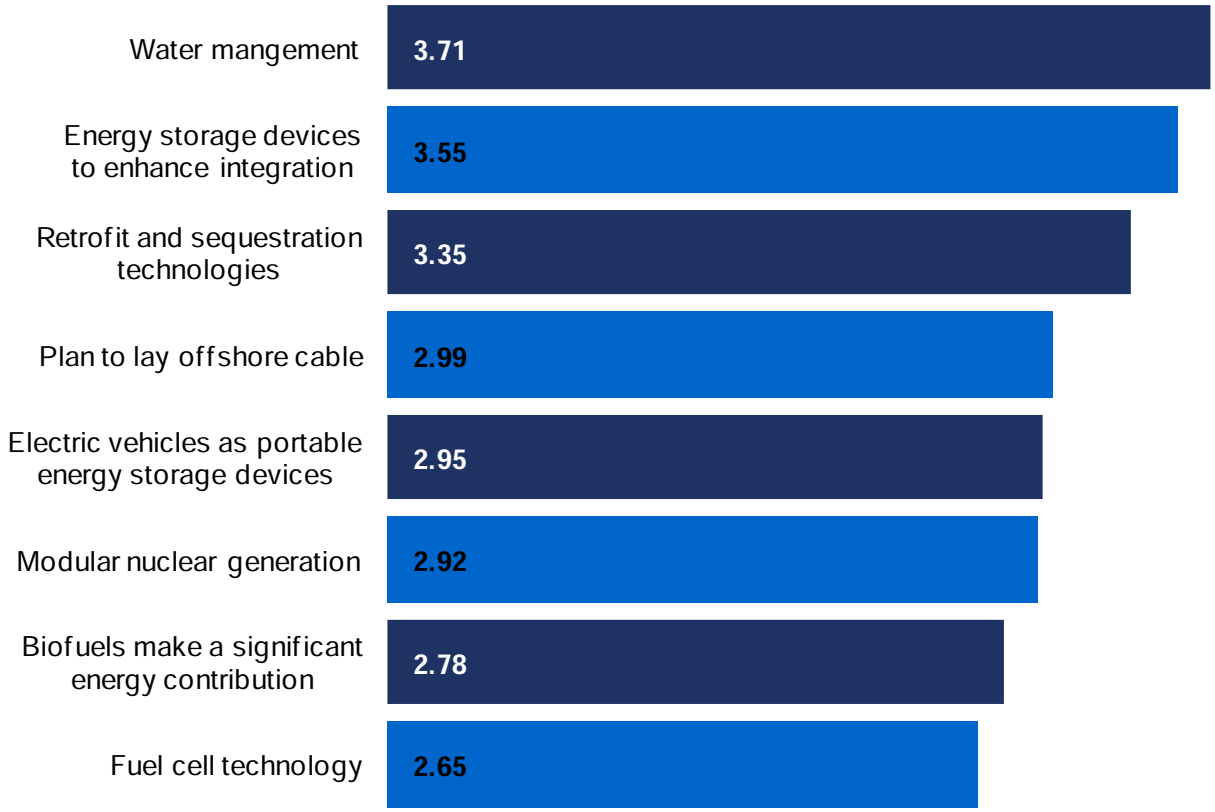


Source: Ernst & Young, July 2011

Water Management Will Impact Electric Utility Industry

(ratings scale: 1-5)

A Black & Veatch survey asked members of the electric utility industry which technology or business innovations they expect to have major impacts on the electricity industry. Respondents ranked answers on an scale of 1-5. The top answer was water management, followed by energy storage devices and development of retrofit and sequestration technologies.



Source: Black & Veatch, July 2011

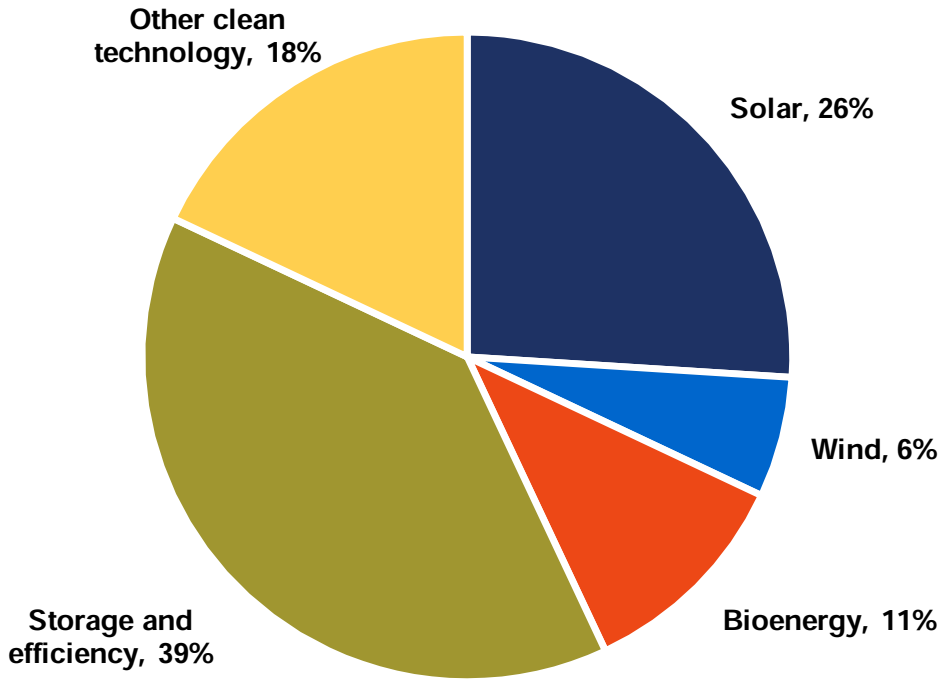
investments

Cleantech M&A, Capital Raised by Sector, Jan.-June 2011

(% of total)

ece t ro th i clea tech olo y has lar ely ee propelled y the i fusio of federal fu di i to the sector o ever, i the curre t eco o y, co ti ued support at e isti levels has eco e politically u sustai a le A 200 S over e t sti ulus pac a e allocated 0 illio to clea tech develop e t, su sidies that have si ce e pired

In the U.S., venture capital firms have respo ded to cuts a d u certai policy y loo i at safer tech olo ies ith ore predicta le retur s a d shorter ti e horizons, such as energy efficiency.



Source: Peachtree Capital Advisors, July 2011

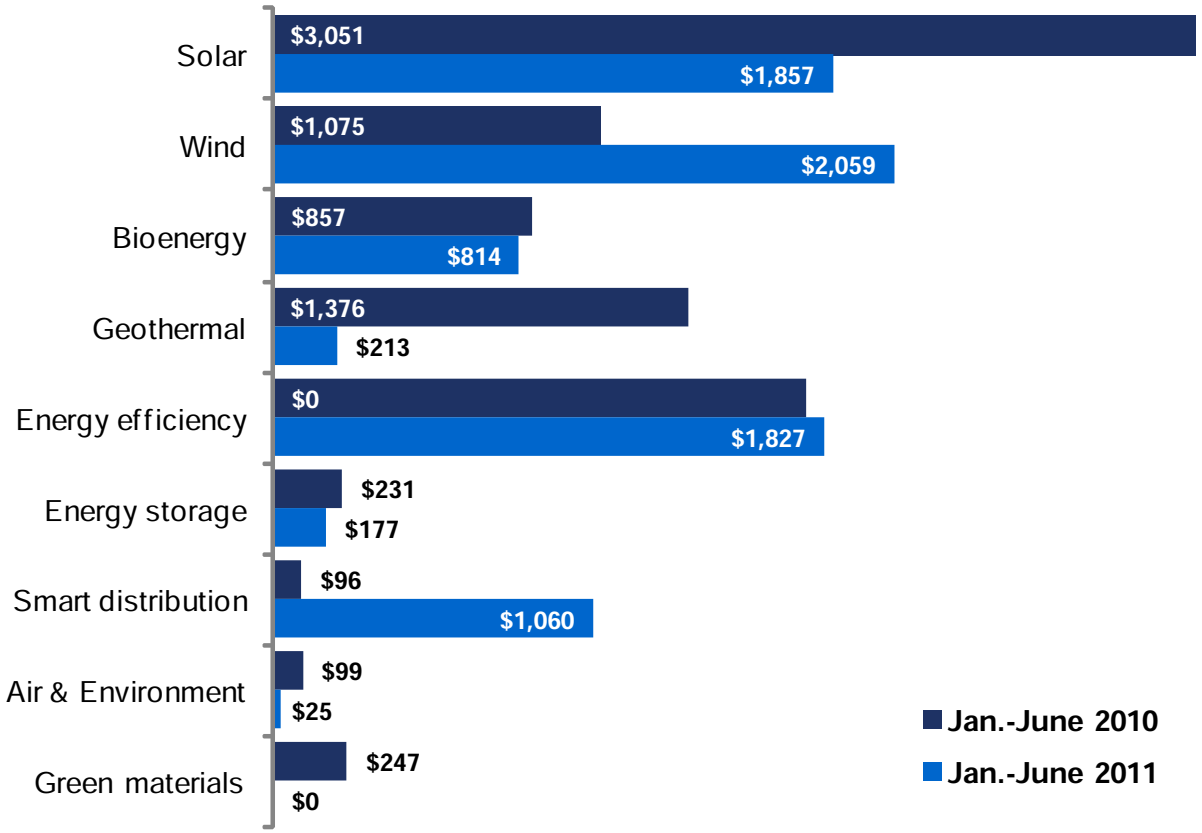
Cleantech M&A and Investment Transaction Values

(US$ millions)

M&A activity in solar had an impressive first half of 2011, rising 64 percent from $1.9 billion in the first half of 2010 to $3.1 billion.

Wind investment fell sharply, 48 percent to $1.1 billion in the first half of 2011.

With the biofuel industry still working to develop profitable technologies, total equity and debt investment decreased 47 percent from $486 million in the first half of 2010 to $256.8 in the first half of 2011. But overall bioenergy investments rose slightly.



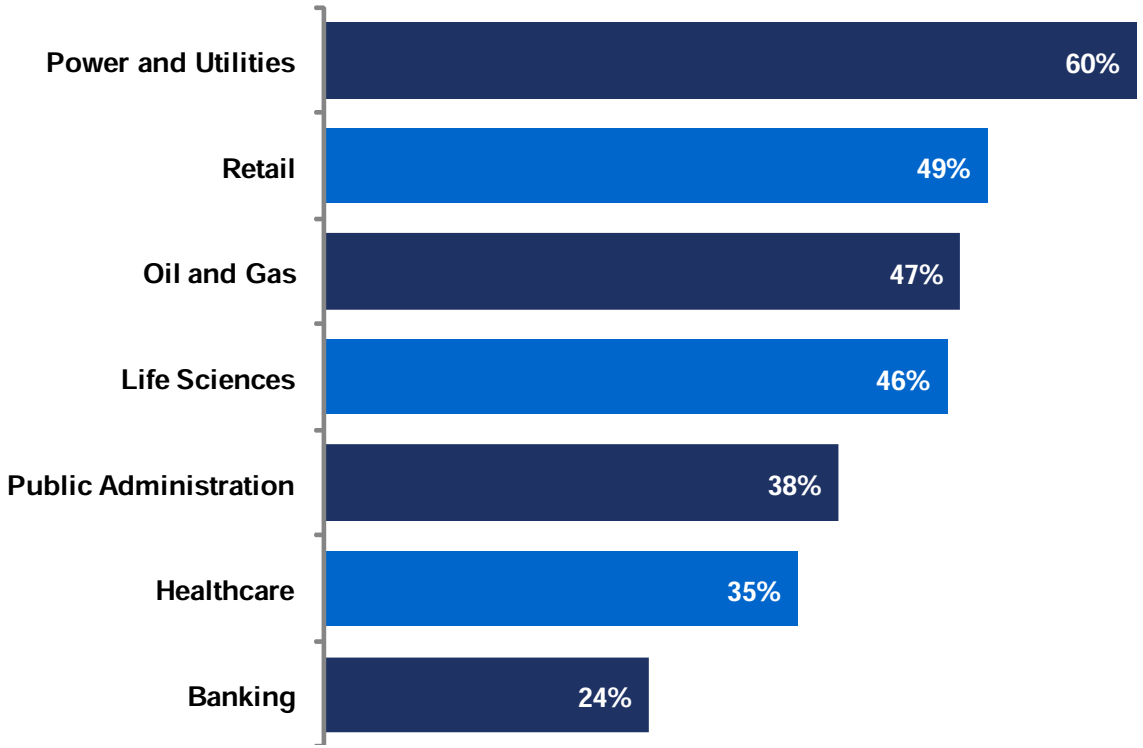
Source: Peachtree Capital Advisors, July 2011

Who Sees Cleantech Investments as a Core Strategy?

(% of respondents)

n ter s of cleantech in est ents in other sectors, Ernst & Young found that such in est ents are the factor second ost frequently cited as key to an organization's inno ation strategy trailing only the e pected growth in the ar et for eco friendly products and ser ices

n ter s of current success, howe er, cleantech is even farther from realization. 60 percent of power and utilities firms ha e een successful in ta ing ad antage of cleantech opportunities, while all other sectors sur eyed were elow half



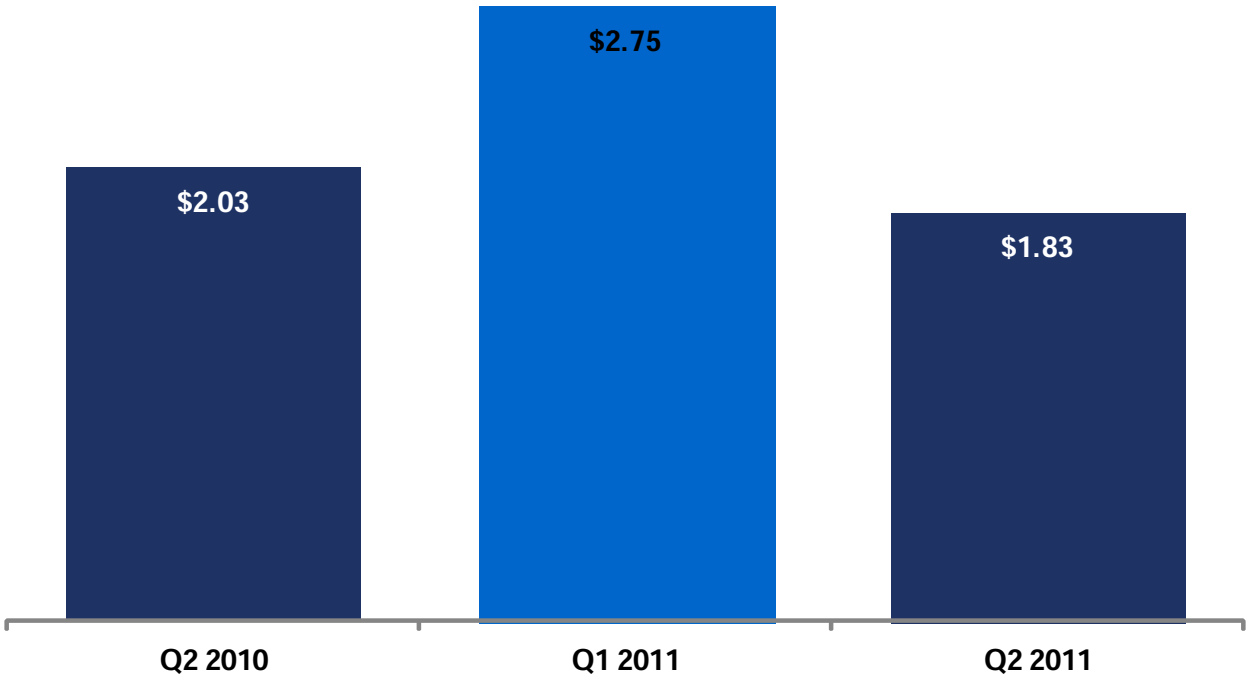
Source: Ernst & Young, July 2011

Global Clean Technology Investments, Q2 2011

(US$ billions)

Preliminary Q2 2011 results from Cleantech Group for clean technology venture investments in North America, Europe, China and India have totalled $1.83 billion, a 33 percent decrease compared to the previous quarter's $2.75 billion.

The Q2 2011 value is also 10 percent lower than Q2 2010, when the Cleantech Group tracked $2.03 billion in venture capital invested in clean technology. The number of deals recorded in Q2 2011 was 161, compared to 174 in Q1 2011.

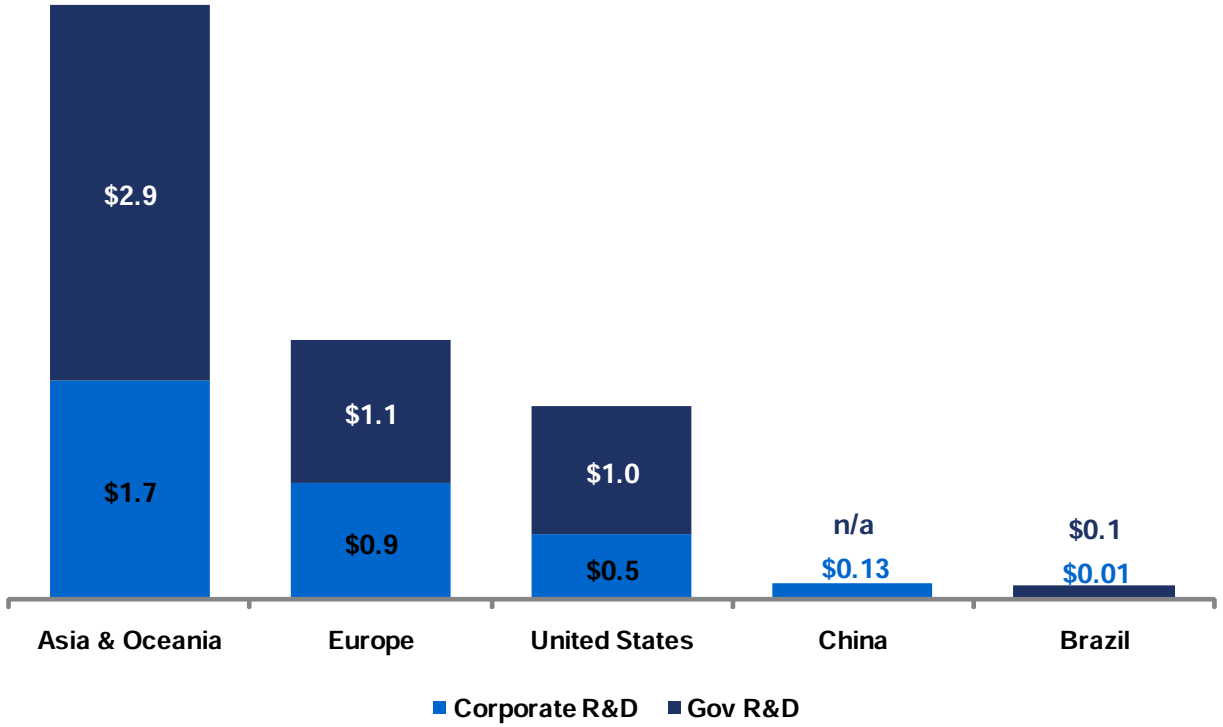


Source: CleanTech Group, July 2011

New Investment in Renewable Energy by Region, 2010

(US$ billions)

n sia an ceania e clu ing ina an n ia, go ernmen an ri a e su or or renewable energy rose s ar ly o $ billion, on e bac o ma or s imulus packages in Japan, South Korea and us ralia, accor ing o Bloomberg e ne bigges source o go ermen in es men was seen in Euro e, $2 billion in o al, wi $1 1 billion coming rom ublic resources n e Uni e S a es, go ernmen un e researc an e elo men was no ar be in Euro e, wi $1 billion in s en ing in 2010 U S cor ora e was $ 00 million in 2010



Source: Bloomberg New Energy Finance / UNEP

New Investment in Renewable Energy by Technology, 2010

(US$ billions)

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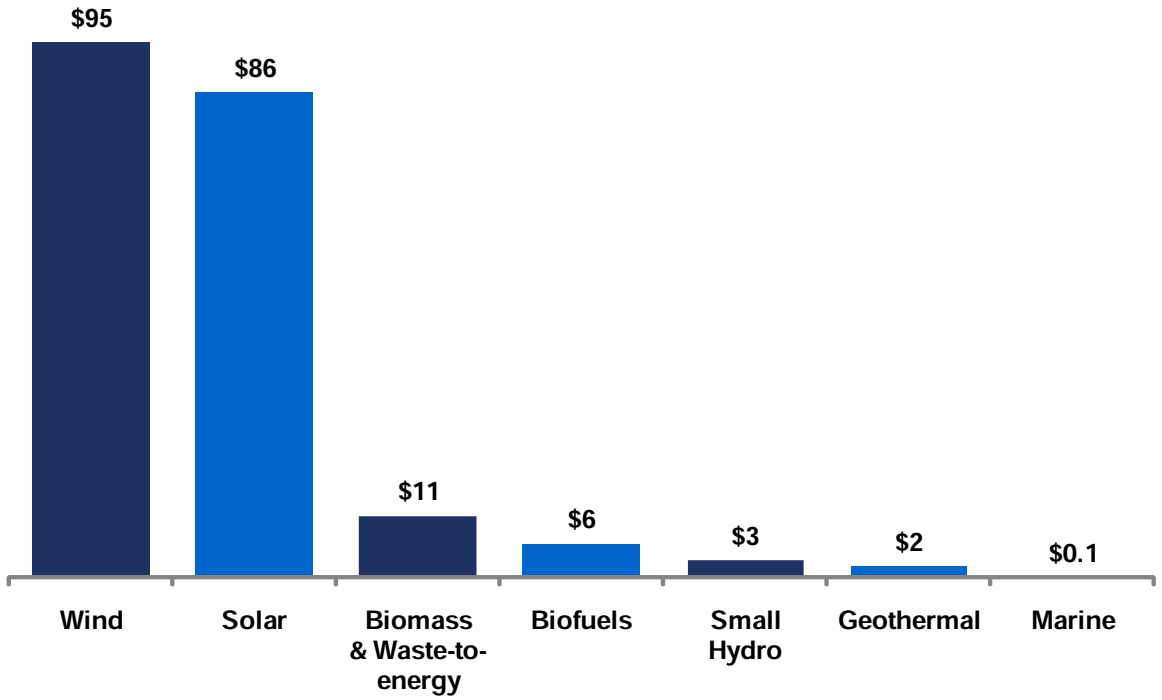
Solar ollowe wi $ billion, w ic re resen e a 2 ercen grow o er 200 By com arison, o er sec ors lagge ar be in ccor ing o Bloomberg, is reflected decisions globally to invest in large ro ec s an a rise in o s ore win in ras ruc ure in es men



Source: Bloomberg New Energy Finance / UNEP

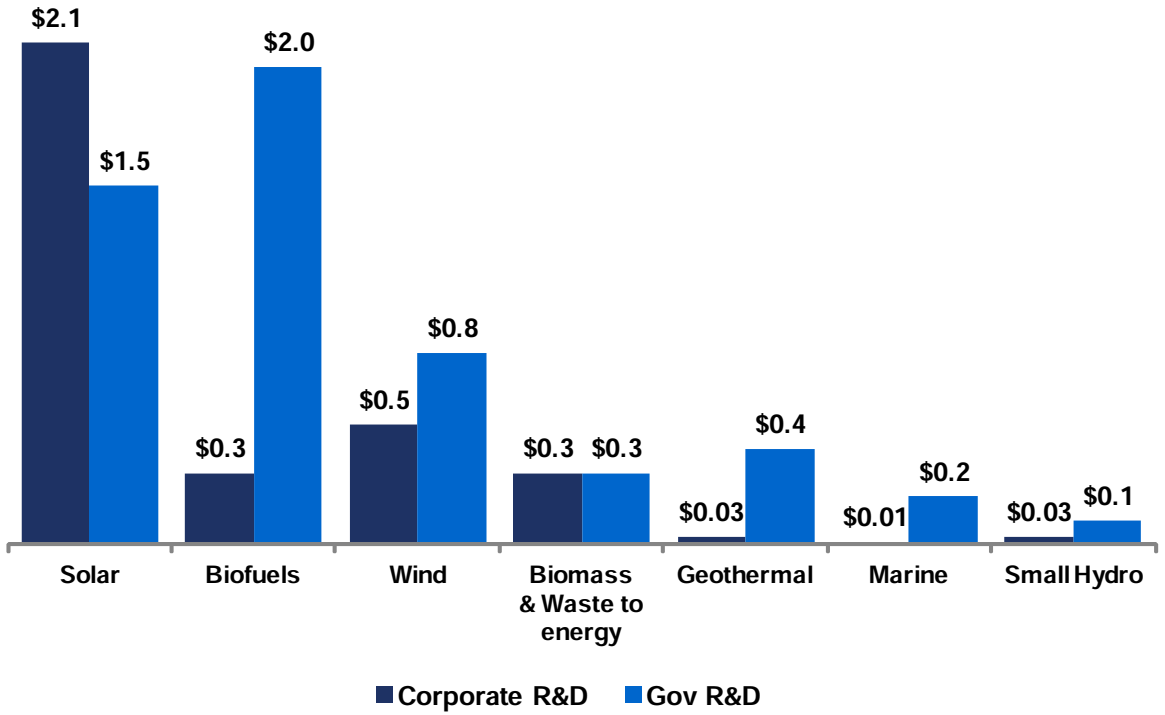
Solar Leads for R&D Investments into Renewable Energy

(US$ billions)

Solar commanded the biggest single share of worldwide R&D spending on renewable energy, and was up 8 percent over 2009 at $3.6 billion of combined government and corporate funding sources.

Public sector funding of solar research and development more than doubled, but corporate spending fell by 19 percent.

Biofuels R&D, with most funding coming from the public sector, followed solar with $2.3 billion in 2010.



Source: Bloomberg New Energy Finance / UNEP

Cleantech Venture Investment by Technology Sector, Q2 2011

(US$ billions)

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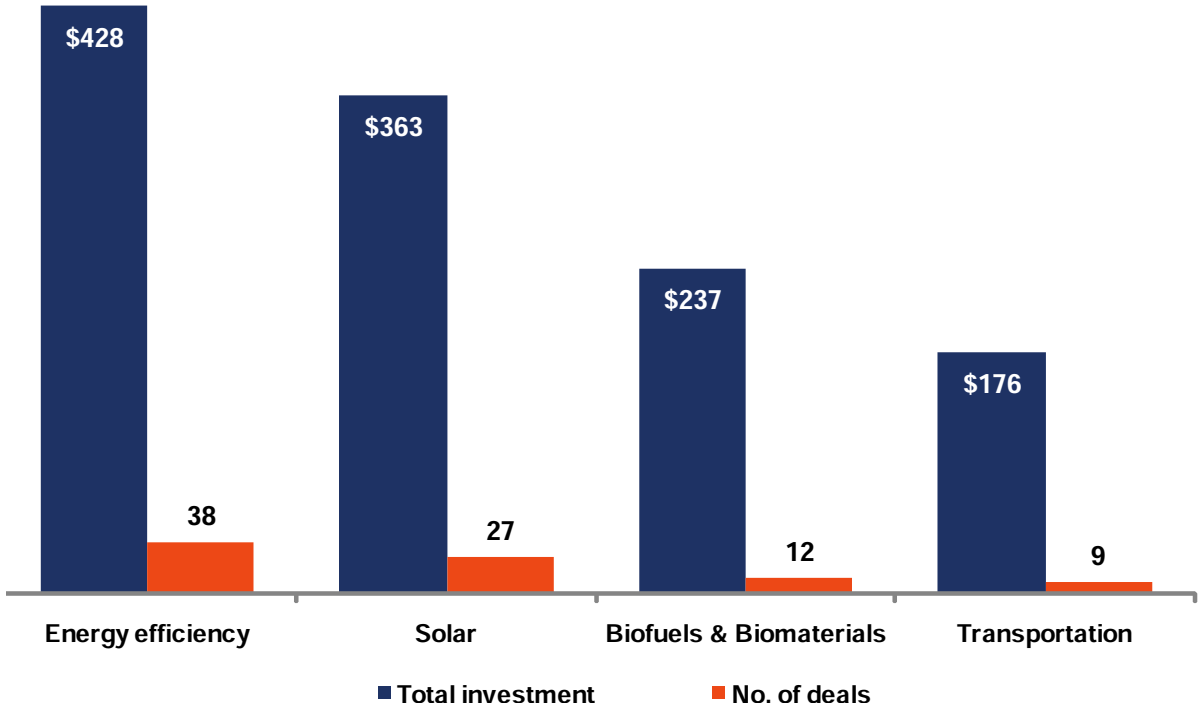
This alue is also 10 percen lo er han 2 2010 hen he Clean ech Group rac e $2 0 illion in en ure capi al in es e in clean echnolo y The num er o eals recor e in 2 2011 as 1 1, compare o 1 in 1 2011



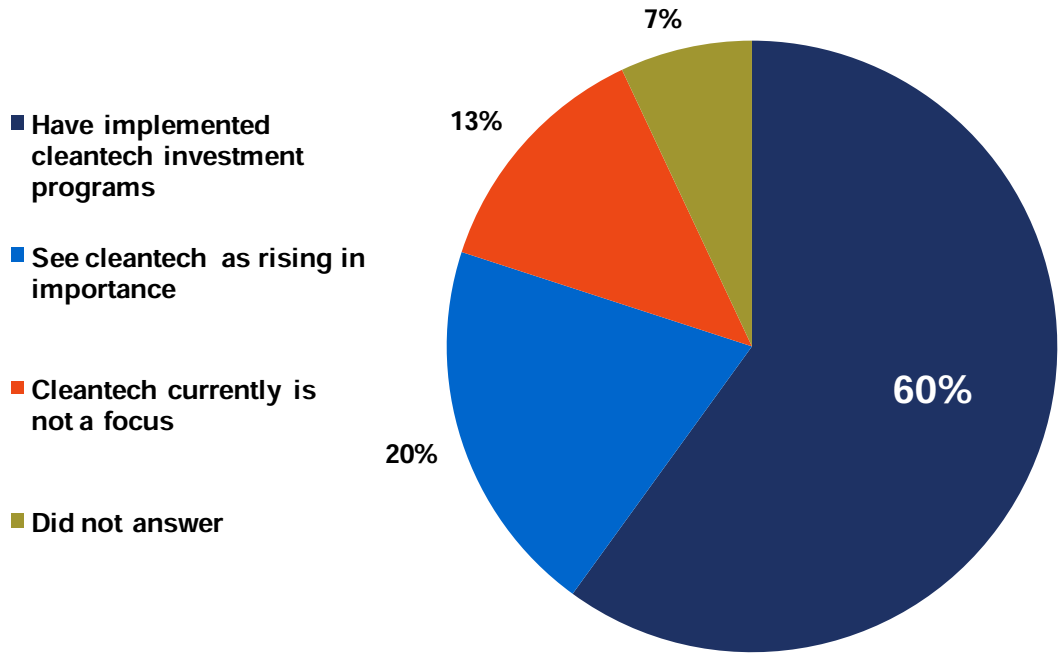
Source: CleanTech Group, July 2011

60% of Power and Utilities Firms Benefit from Cleantech

(% of respondents)

60 percent of power and utilities firms said t ey d lre dy een successful n t ng d nt ge of cle ntec opportun t es, le 1 percent s d t s currently not focus

s s desp te t e f ct t t po er nd ut l t es le d ll sectors n t e percent ge of respondents (ore t n 0 percent) s y ng t t cle ntec s core to t e str teg c success of firms in the industry.



Source: Ernst & Young, July 2011

Top 10 Holders of Solar Thermal Patents, 2002-2010

(no. of patents)

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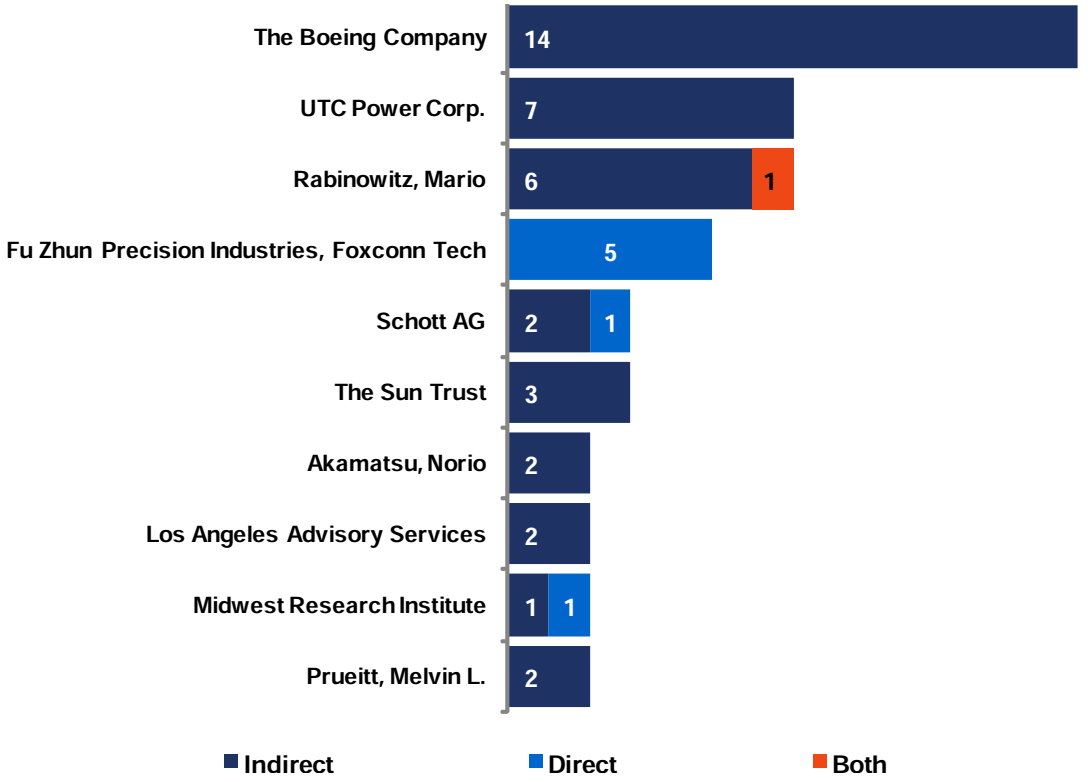
In joint second place, Mario Rabinowitz holds atents ith or in irect technologies.

nite echnologies ties or secon ith atents in the in irect area relating to the heating of fluids via solar thermal to create electricity.



Source: Heslin Rothenberg Farley & Mesiti P.C. June 2011

policy & jobs

U.S. Energy Consumption by State, 2009

(% of total)

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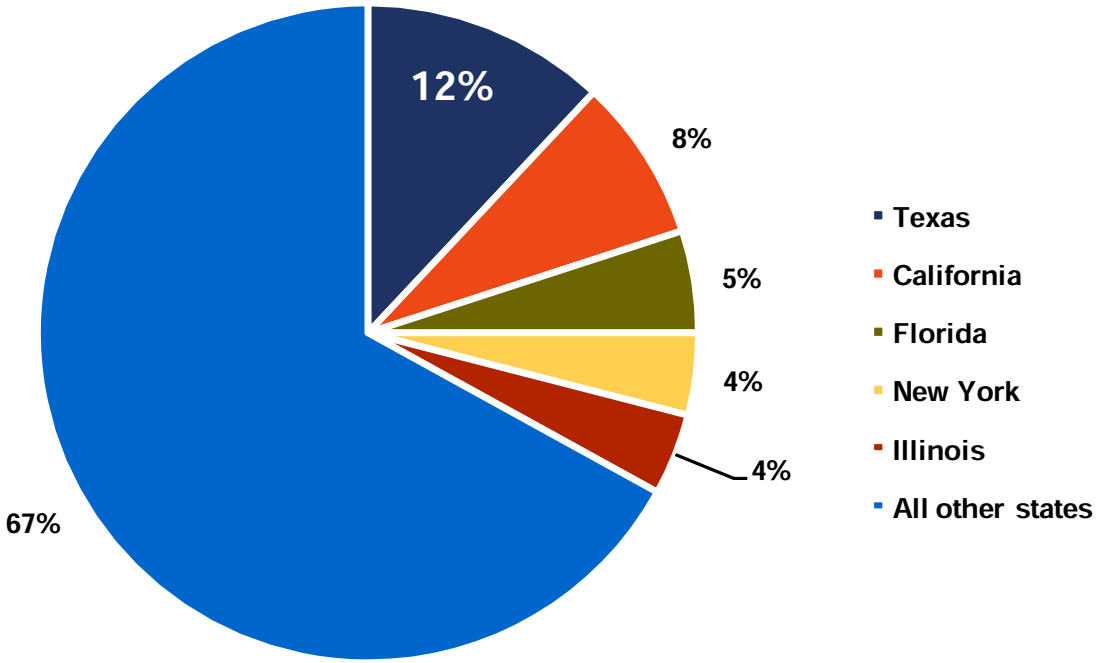


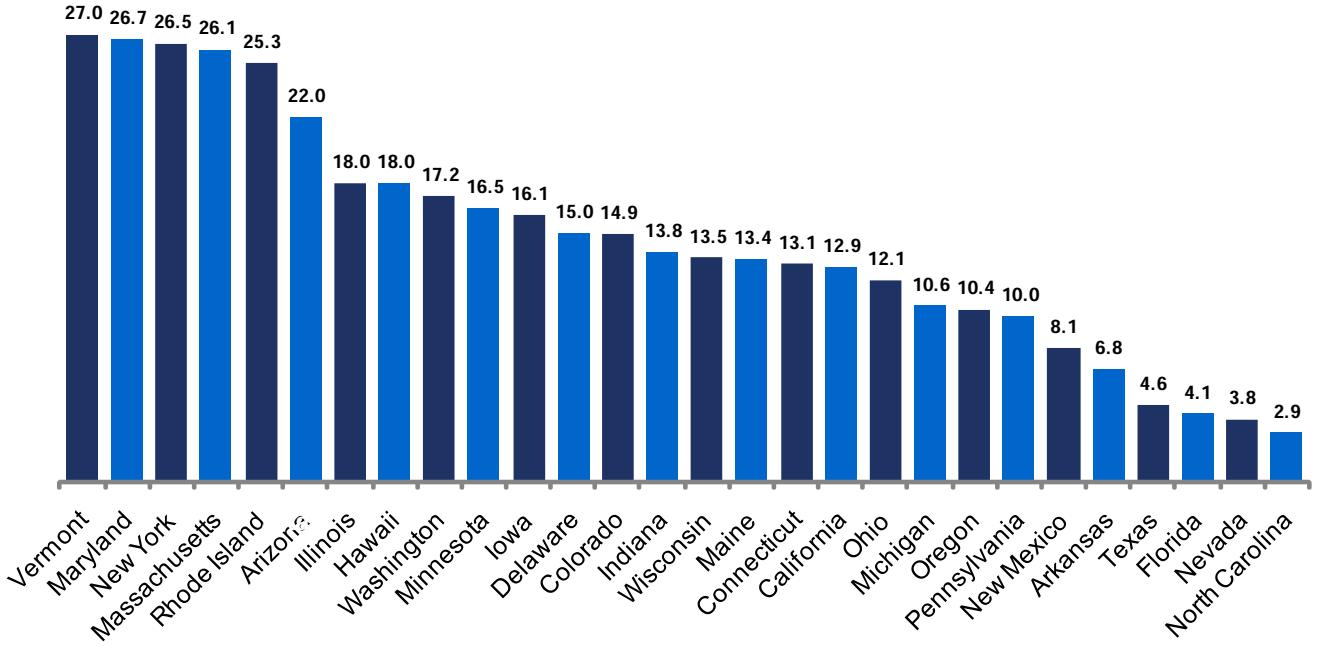
Source: EIA, State E erg ata S ste (SE S), August 2011

Cumulative Savings of State Energy Policy

(% of energy savings)

ACEEE tracks actual energy savings and compares results with required targets for states participating in Energy Efficiency Resource Standards (EERS).

States with an EERS achieve significant energy savings from utility programs. Of the 28 states, only seven – Pennsylvania, New Mexico, Arkansas, Texas, Florida, Nevada and North Carolina – will achieve lower than 10 percent cumulative electricity savings by 2020, if their policies remain in place.



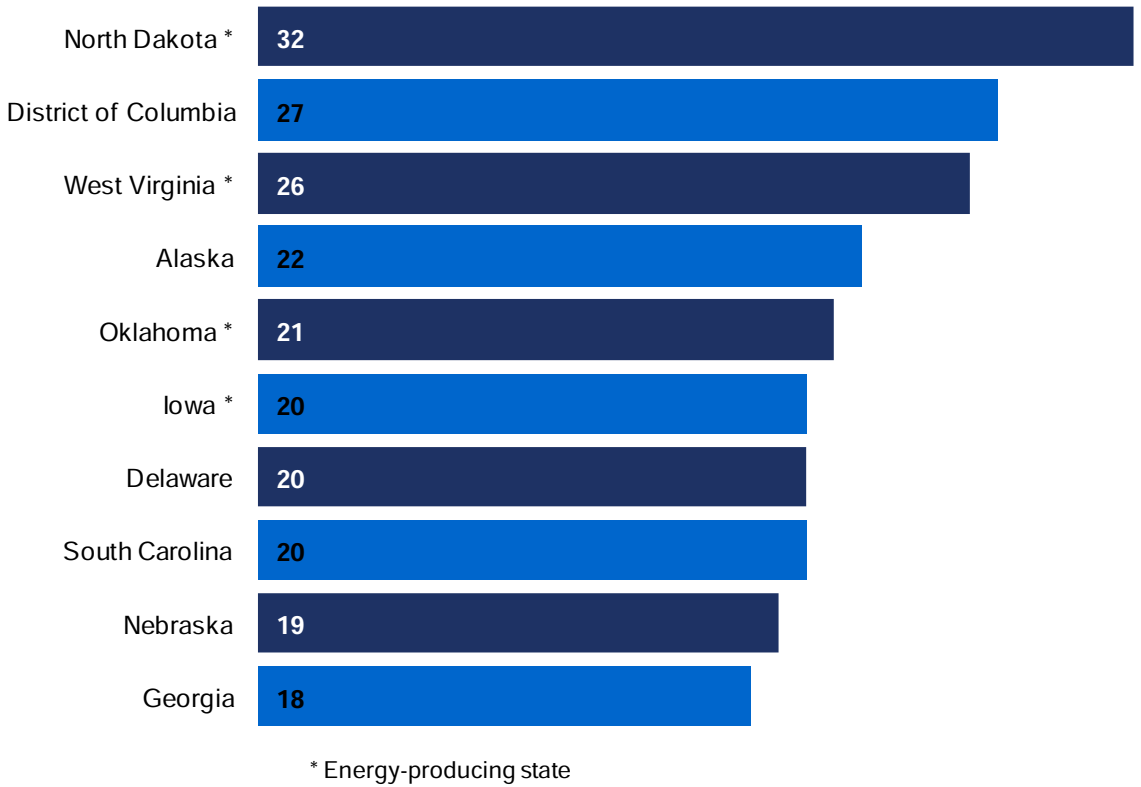
Source: ACEEE, June 2011

Top 10 States for Job Creation, January-June 2011

(Gallup Index score)

According to Gallup, the energy-producing states of North Dakota, Oklahoma, and West Virginia ha e been in the 10 best state ob markets for the past years, from 200 to mid-2011

hey are oined by the District of Columbia a federal go ernment-based ob market and Iowa, a farm commodity and energy state, both of which were also in the top 10 in 2010 One key to a high state ranking in ob creation in recent years has been for a state s economy to be based on energy and or farm commodities



Source: Gallup, August 2011

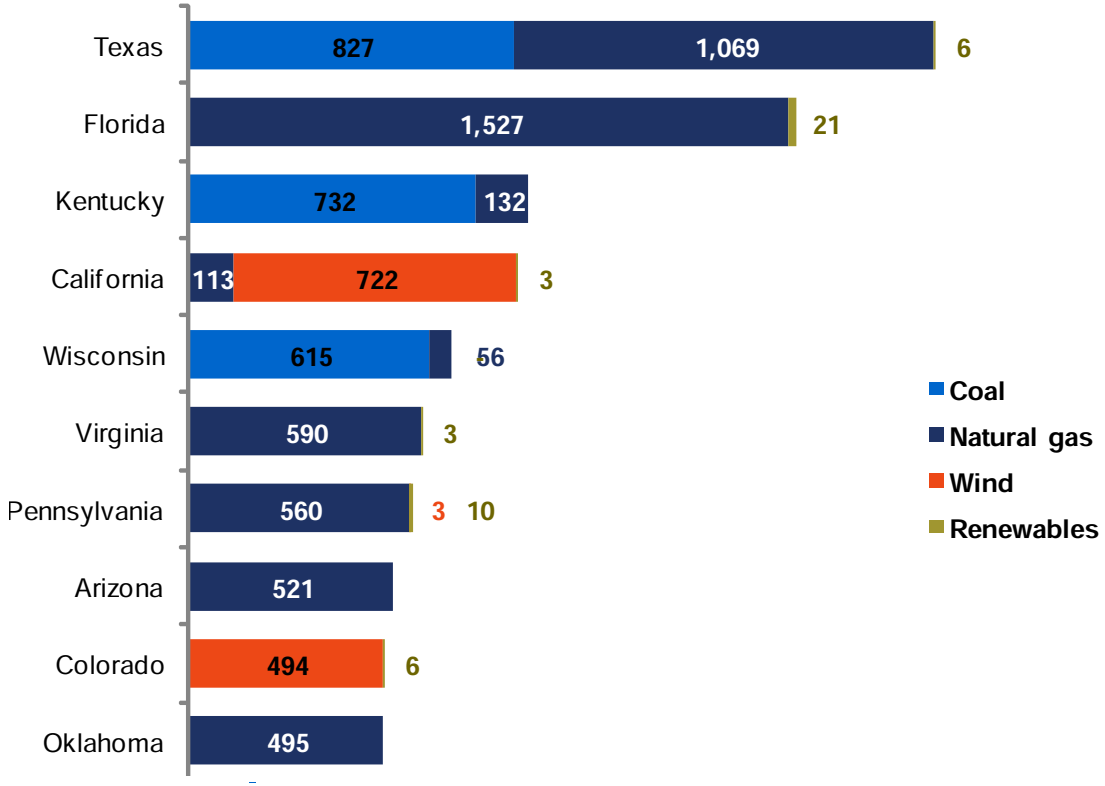
Top States for Added Electric Generating Capacity

(MW)

From January to June 2011, 162 electric power generators were added in states, for a total of 11,2 megawatts (MW) of new ca acity. Ca acity additions in the to ten states total , 0 MW, or ercent of total. Most of the new ca acity uses natural gas, coal, or wind.

Texas, Kentucky and Wisconsin each added a single, large coal-fired generator between January and June of 2011.

ew generators using renewa le energy sources are numerous, but smaller. Landfill gas was added in Florida, Pennsylvania, Texas and Virginia. So lar was added in California, Colorado, Florida and Pennsylvania.



Source: EIA, August 2011

environmental LEADER ELPRO

Top 10 States for Cumulative Wind Capacity, 2010

(MW)

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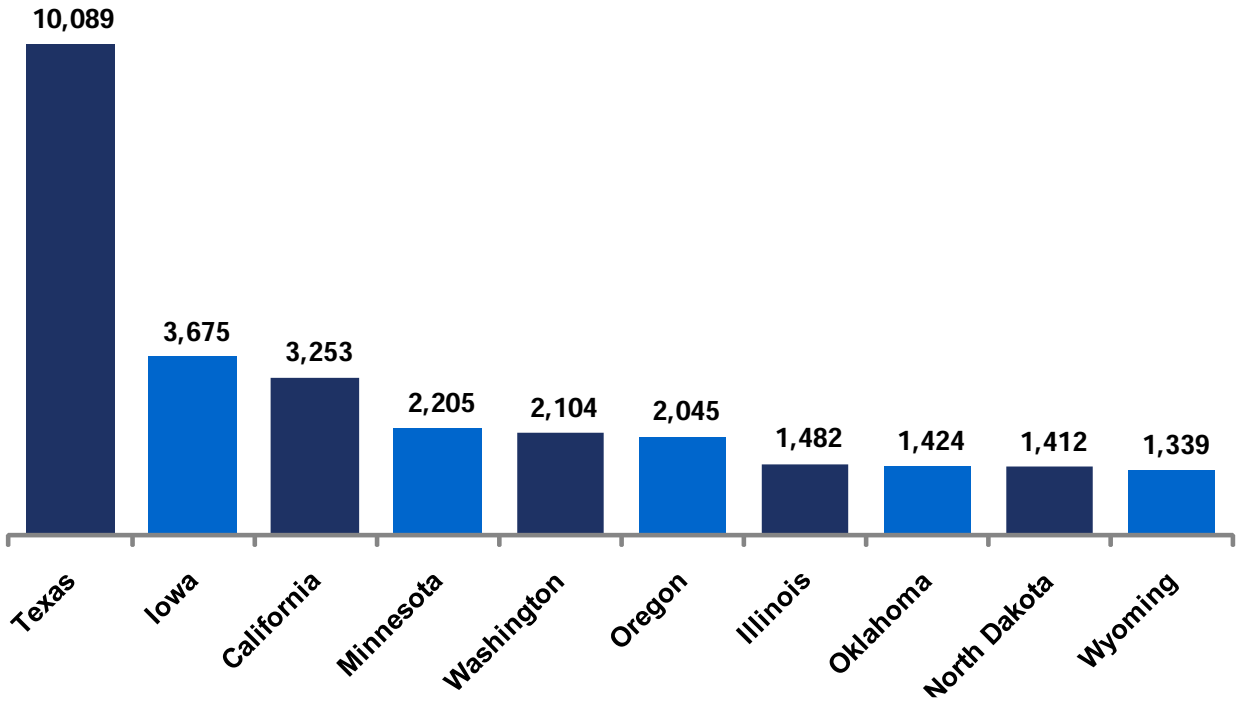


Source: U.S. DOE, June 2011

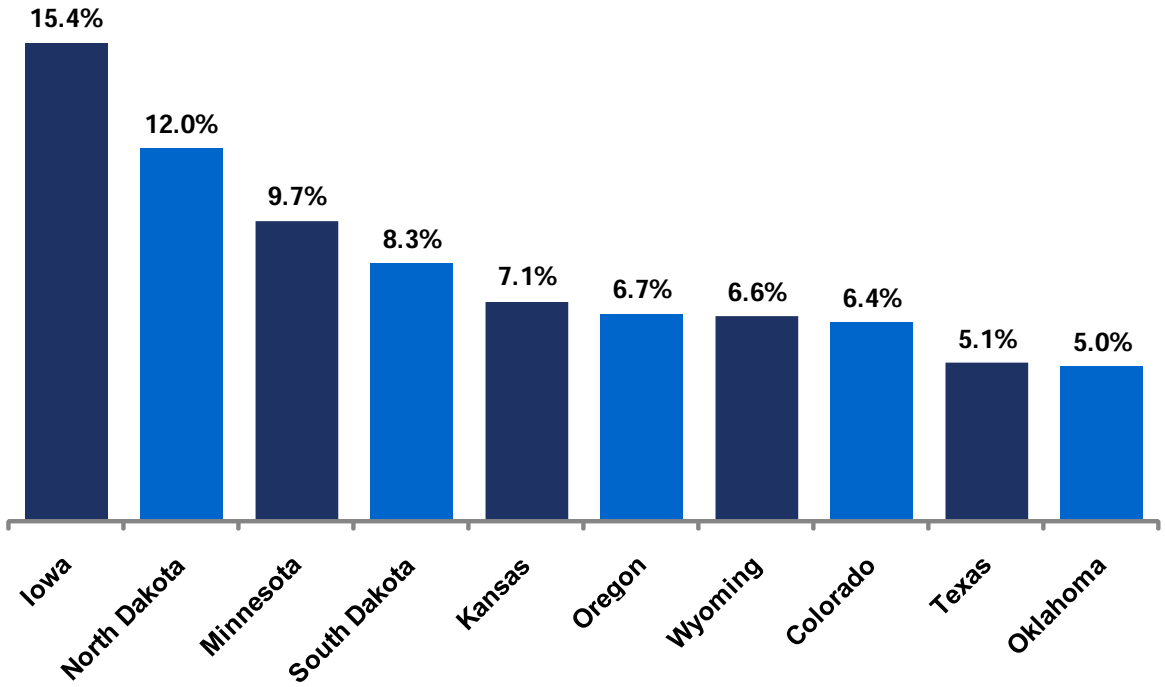
Top 10 States for Wind Power Generation, 2010

(% of electricity generation)

Some states are beginning to realize relati el ig le el of in energ enetration our u er i e t tate ort an Sout Da ota, inne ota, an o a lea t e li t

Sout Da ota an an a are e ti ate t e DOE to alrea a e reac e t e 10 ercent oint for 2010, t roug ro ect co i ione to ar t e en of 2010

Interestingly, Texas, which is ranked first en ea uring in o er ca acit , i ran e onl nint ere, a in o er i u t 1 ercent of generation



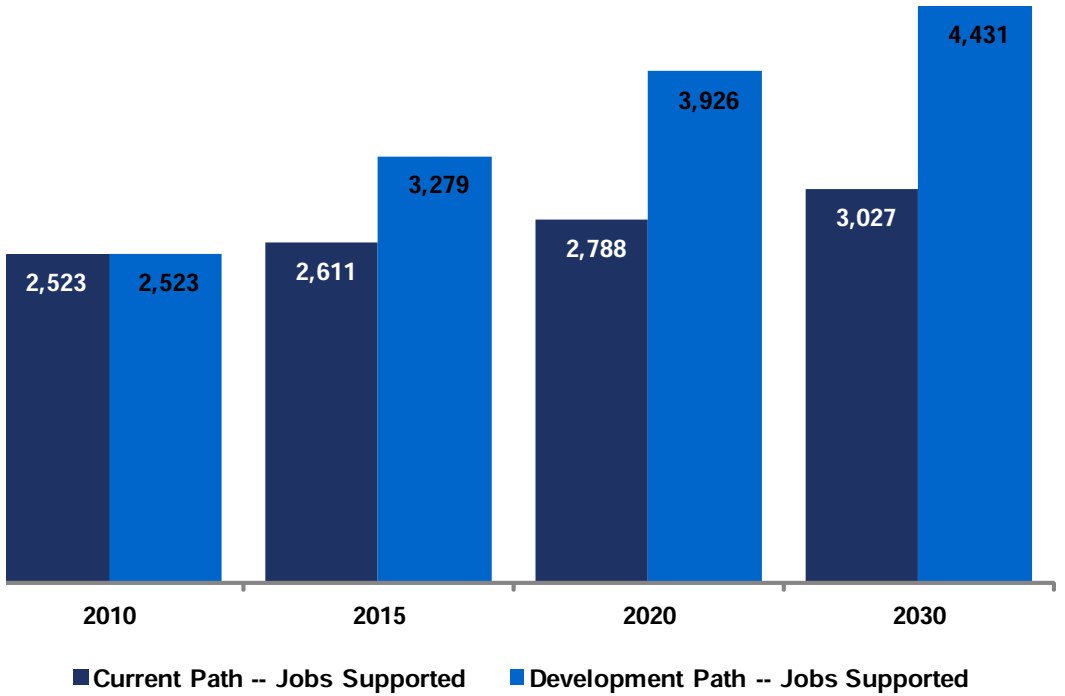
Source: U.S. DOE, June 2011

Jobs Potential with Increased Oil & Natural Gas Production

(total no. of jobs (000))

The American Petroleum Institute researched a development path which entails opening access to key U.S. regions currently closed to development, assessing a return to historical levels of development on existing production areas (including onshore U.S., the Gulf of Mexico and Alaska), and developing oil and other potential Canada-to-U.S. oil pipelines similar to Keystone XL.

The analysis found that U.S. policies which encourage industry developments could, by 2030, support an additional 1.4 million jobs.



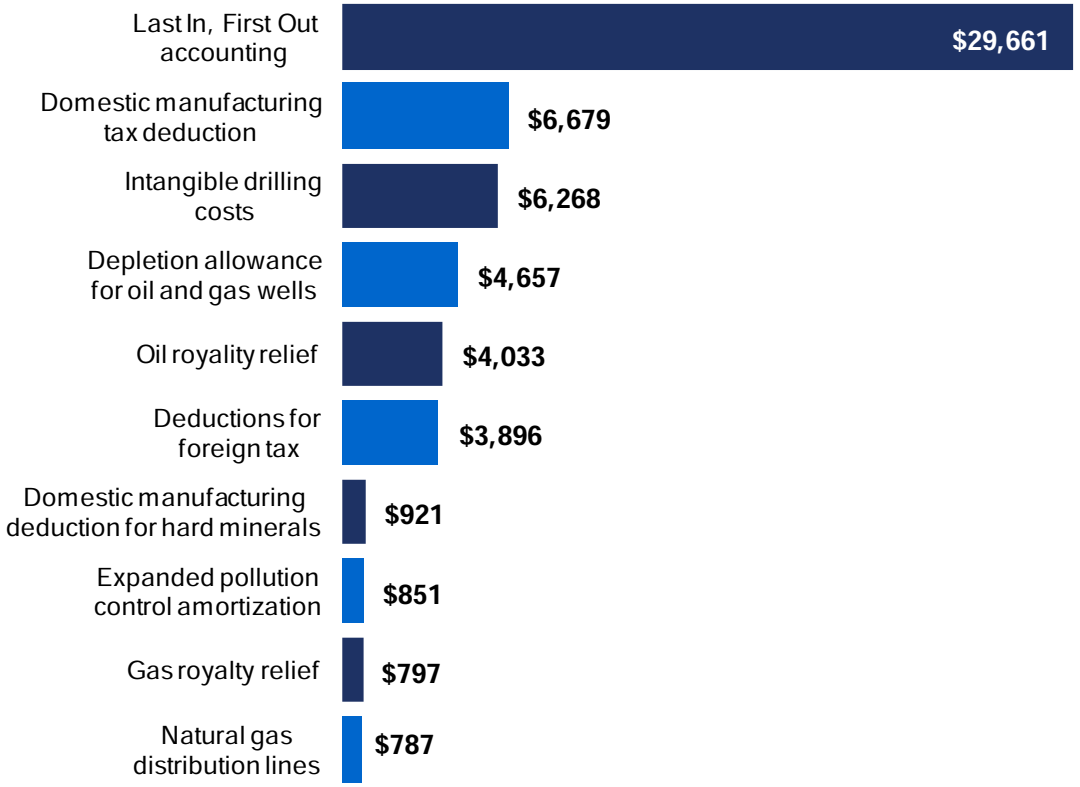
Source: American Petroleum Institute, September 2011

Savings Potential from Fossil Fuel Subsidies Cuts, 2012-2016

(US$ millions)

On the other side of the table, the Green Scissors lists includes some ey cuts to current fossil fuel industry subsidies, sa ing taxpayers more than $ 1 billion o er the next five years. Charted are the top ten areas identified for savings.

For decades, go ernment subsidies ha e flowed to the fossil fuels industry. The lion's share of these subsidies comes in the form of tax brea s that cost the go ernment tens of billions of dollars annually, Green Scissors says. his tax spending is particularly ad antageous for the industry because most of it is permanent law and does not re uire regular re iew from ongress, GS adds.



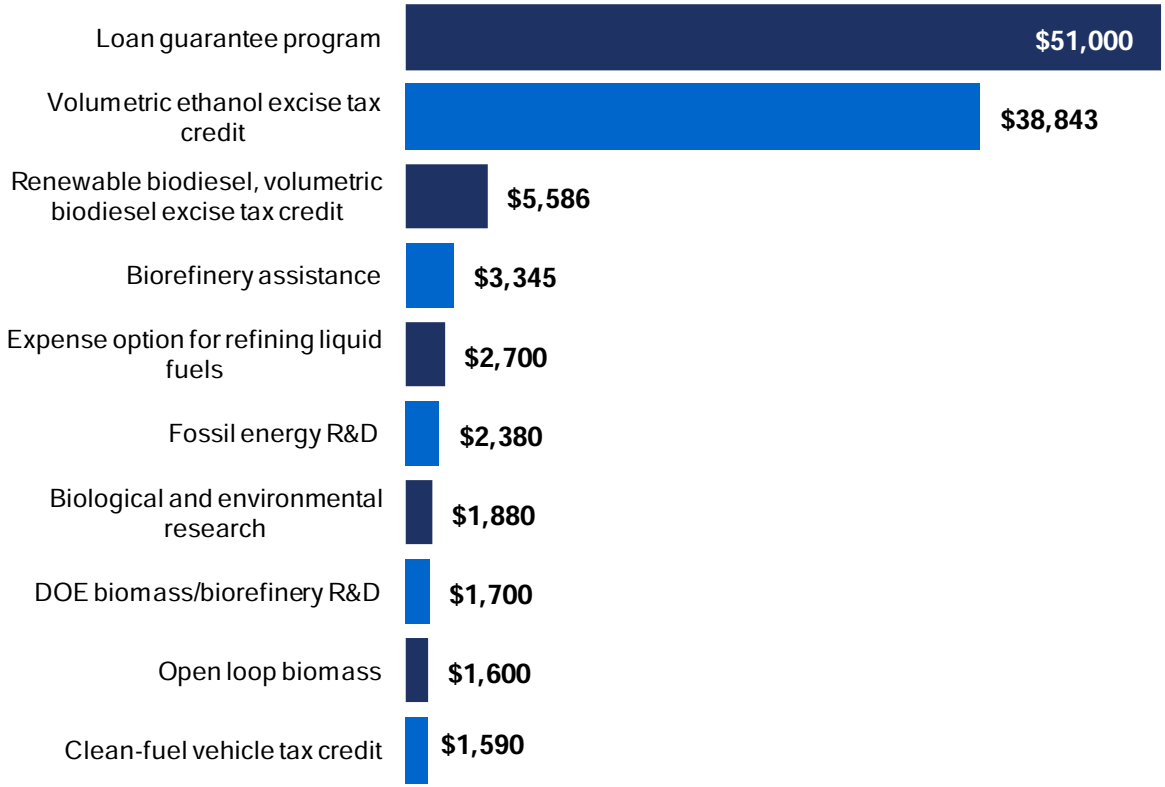
Source: Green Scissors, August 2011

Savings Potential from Alternative Fuel Subsidies, 2012-2016

(US$ millions)

he Volumetric Ethanol Excise ax Credit is a 0-year-old direct subsidy to corn ethanol set to expire at the end of 2011. t exempts the ethanol portion of gasoline blends from gasoline excise taxes and establishes a tax credit for ethanol use. t is currently worth cents per gallon of ethanol that is then blended with gasoline, and Green Scissors says that it costs taxpayers more than $1 million a day.

n 2011, an elimination of the Volumetric Ethanol Excise ax Credit would have yielded $. billion, Green Scissors says.



Source: Green Scissors, August 2011

sustainability & strategy

The U.S. Chief Sustainability Officer, By the Numbers

29 Total number of CSOs at publicly traded companies

16 Average number of years the CSO spent at company

25 Number of CSOs selected internally for their position

12 Number of CSOs involved in overall corporate decision making

17 Number of CSOs with a Master's degree

3 Number of CSOs with a PhD

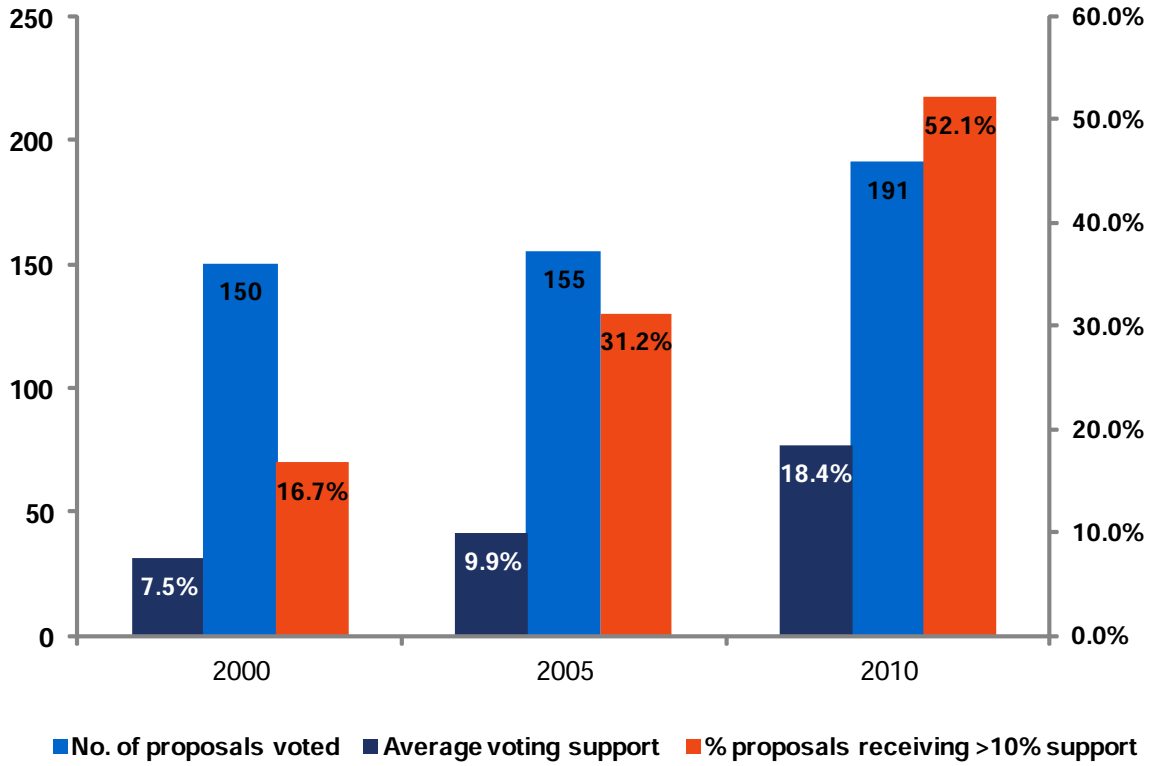
Source: Weinreb Group, September 2011

Trends in CSR-Related Shareholder Proposals, 2000-2010

(% of average voting support)

The number of CSR-related shareholder proposals rose from 150 in 2000 to 191 in 2010. In addition, last year those proposals received average voting support of 18.4 percent of votes cast, vs. just 7.5 percent a decade earlier.

Broader support means that proponents gain more traction with investee companies and put greater pressure on their boards. This is especially true if the proposals reach critical thresholds. Many boards take note once support levels reach the 30-percent mark.



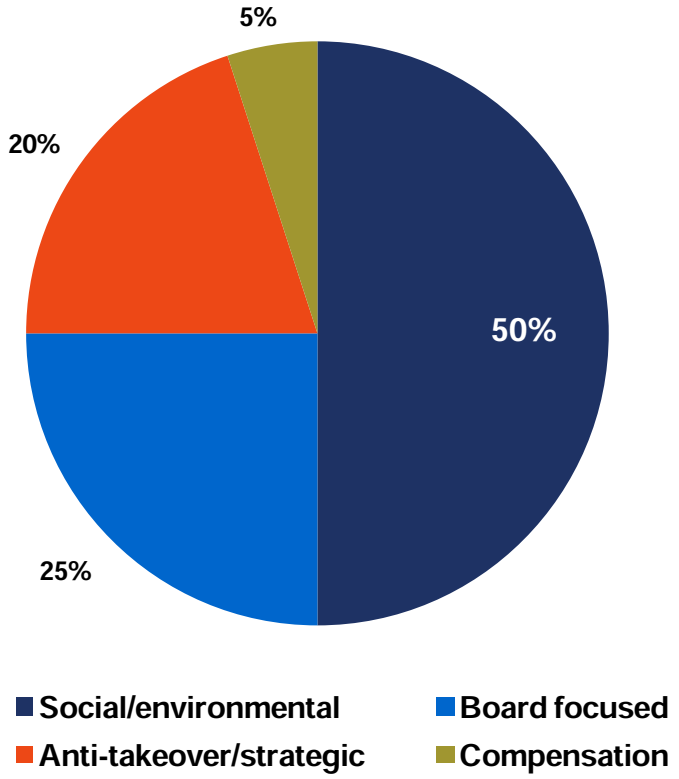
Source: Ernst & Young, July 2011

Corporate Responsibility in Shareholder Proposals in 2011

(% of total)

In 2010, resolutions focusing on social and environmental issues made up the largest portion of all shareholder proposals. That trend is expected to continue this year: Ernst & Young estimates that half of all shareholder resolutions in 2011 will center on social and environmental issues.

Shareholder proposals have become increasingly prescriptive in asking boards to mitigate risks tied to evolving regulations, shifting global weather patterns and heightened public awareness of climate change issues – any of which can affect a company's business.



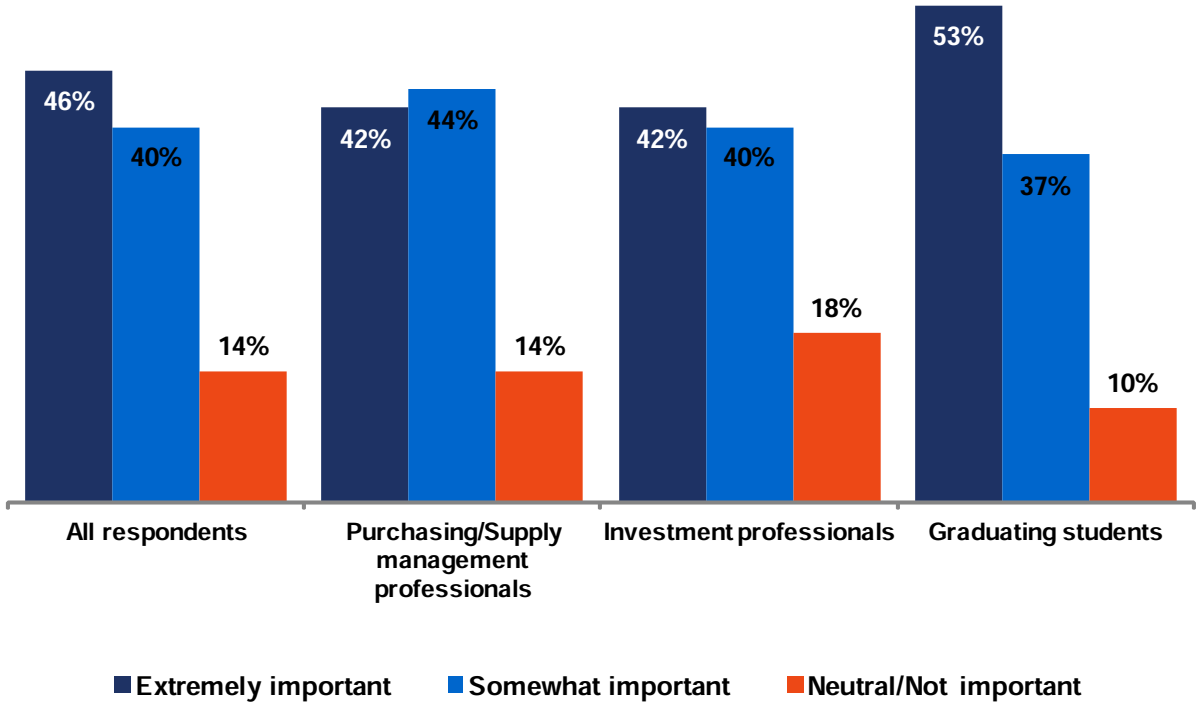
Source: Ernst & Young, July 2011

Importance of Corporate Citizenship in Decision Making

(% of respondents)

When asked about the importance of good corporate citizenship in respondents' decision making, an overwhelming majority – 86 percent – state that it is "important." In fact, nearly half – 46 percent – view it as "extremely important."

On average, graduating students were most likely to give a ranking of "important," while investment professionals and purchasing and supply chain management professionals were equally likely to find good corporate citizenship to be "extremely important."



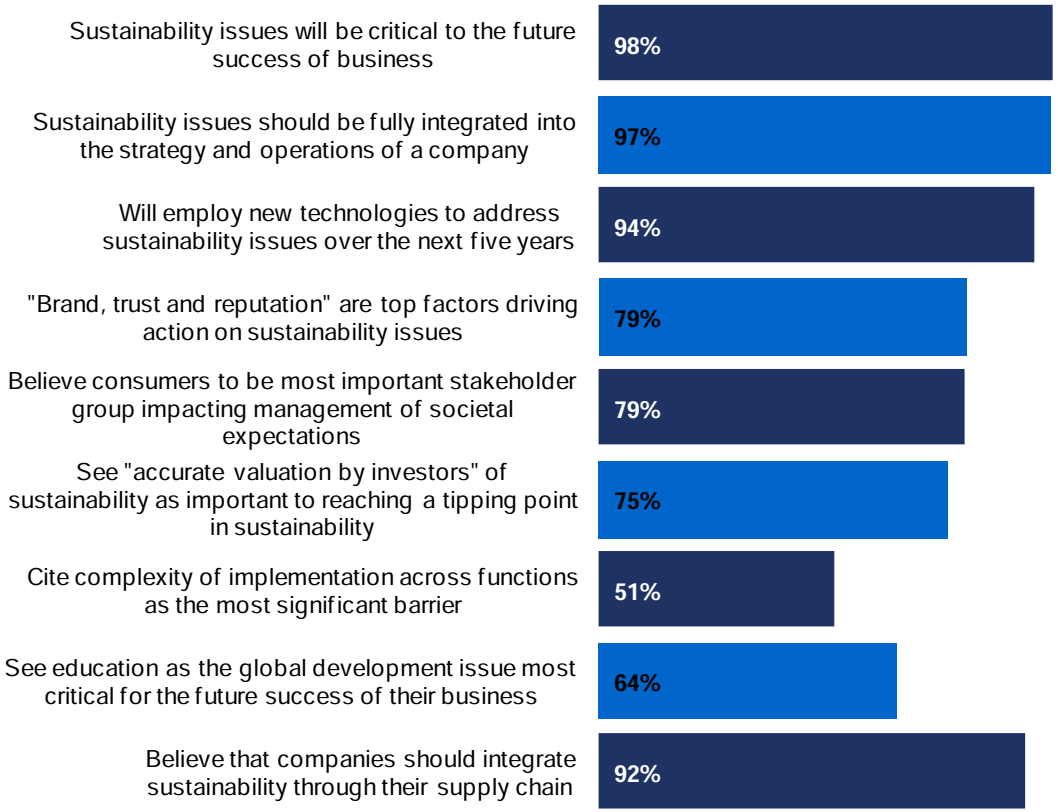
Source: BrandLogic, 2011

Sustainability, Consumer Goods Sector

(% of respondents who “agree” / responded “yes”)

The report is based on a survey of 107 CEOs in the Consumer Goods industry, from 46 countries. Since the last study in 2007, Accenture reports a fundamental change in CEOs’ views on sustainability.

Business leaders worldwide, particularly in the consumer goods industry, now see sustainability as central to their business: 93 percent of CEOs, and 98 percent of those in consumer goods, believe that sustainability issues will be important to the future success of their business.



Source: UN Global Compact / Accenture, May 2011

Sustainability Tipping Point is With Consumers

(% of respondents who "agree" or "strongly agree")

Eighty-nine percent of consumer goods CEOs identify the point at which "the majority of consumers demand products and services that address sustainability challenges" as the core element in reaching a sustainability tipping point – i.e., the point at which sustainability is embedded within most companies' core business strategies.

The respondents said the second- and third-most important drivers of change were having sustainability skills at the educational /training level, and an increased shareholder interest in sustainability.

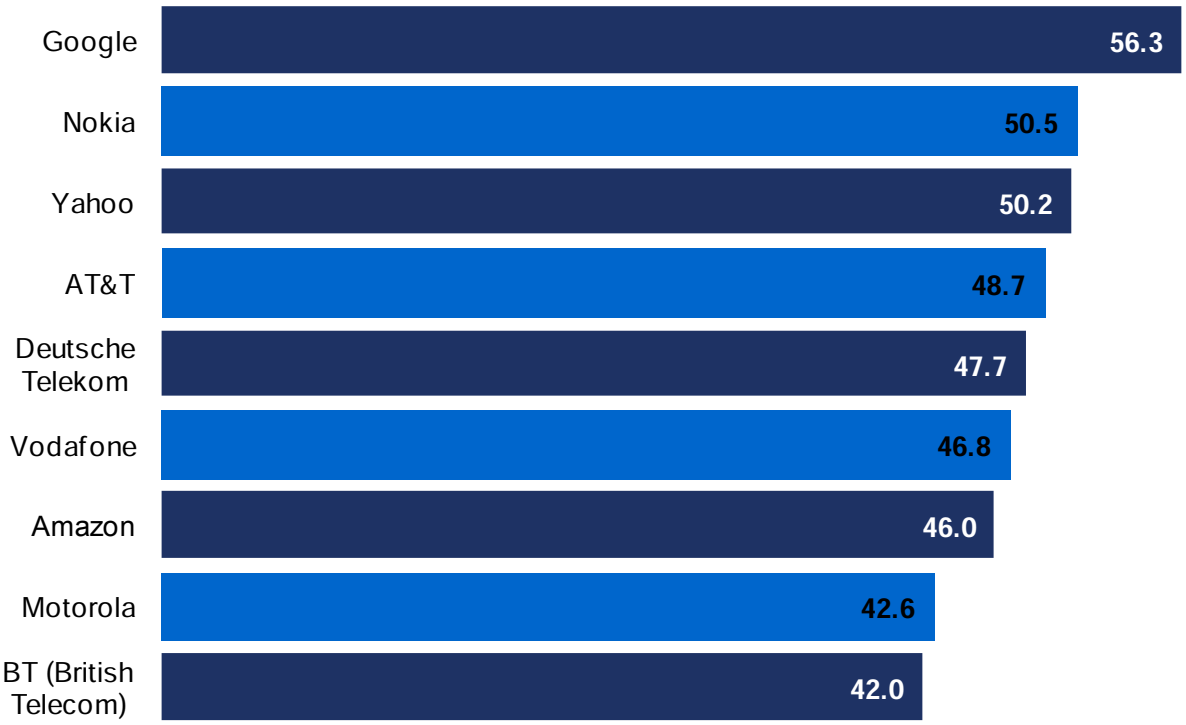
Source: UN Global Compact / Accenture, May 2011

Top Companies for Sustainability, Telecom and Internet

(ranked by SPS - Sustainable Perception Score)

BrandLogic's Corporate Sustainability Brand Perception Survey developed a "sustainable perception score" based on questions related to diversity and gender equality, business ethics, and commitment to measuring and reporting corporate environmental performance. For each statement, respondents were asked to rate up to seven companies on a five-point scale indicating how well the statement described the company.

Google ranked first by a generous margin, with a score of 56.3, followed by Nokia and Yahoo, closely scored at 50.5 and 50.2, respectively.

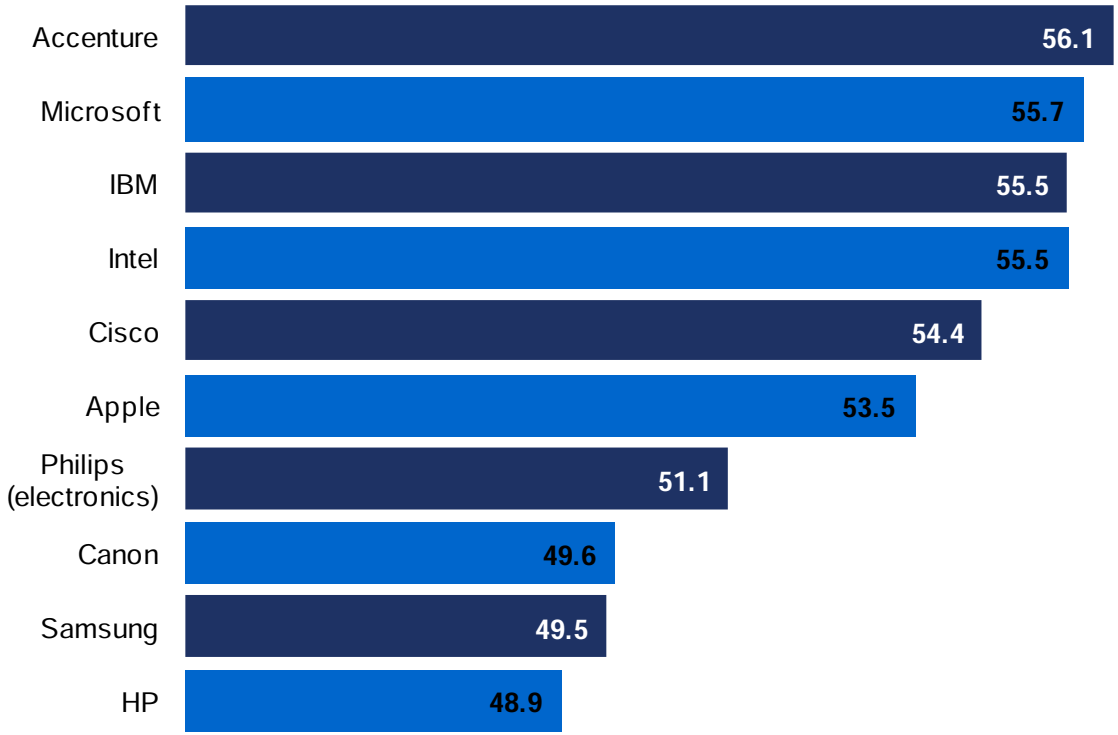


Source: BrandLogic, 2011

Top Companies for Sustainability, Information Technology

(ranked by SPS – Sustainable Perception Score)

In ranking companies in the information technology sector, just over half a point of scoring seperated the top four companies – Accenture, Microsoft, IBM and Intel. As well, the top seven all earned an SPS score over 50.



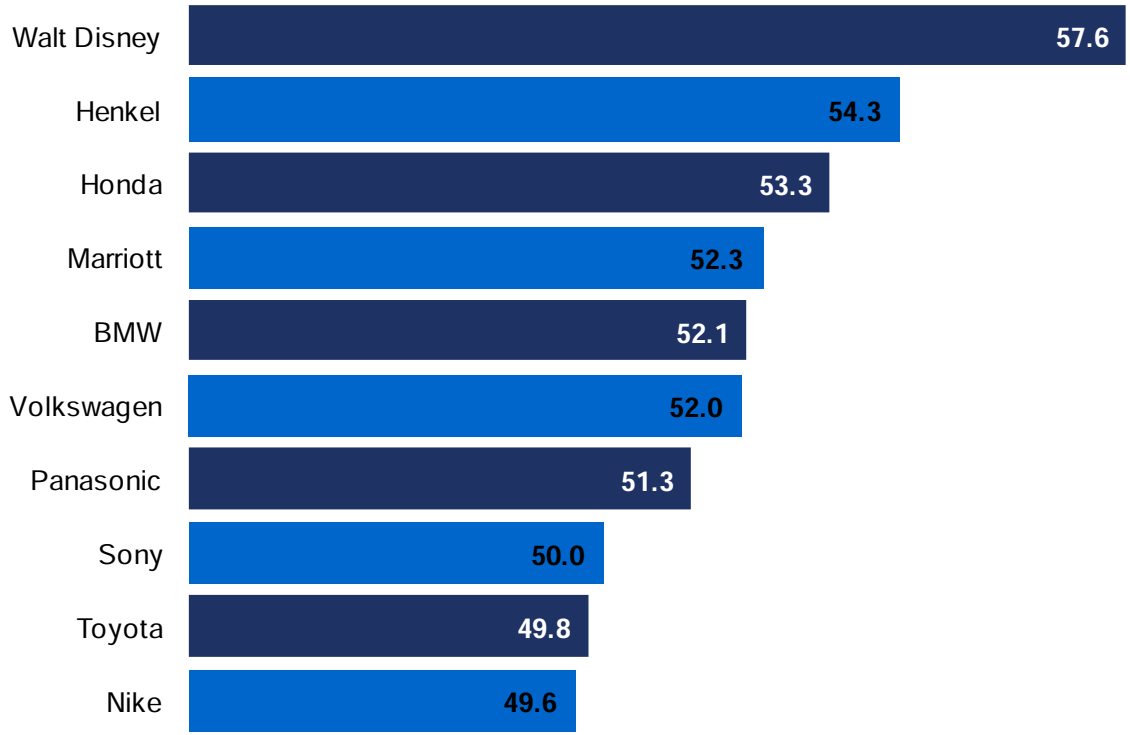
Source: BrandLogic, 2011

Top Firms for Sustainability in Consumer Goods

(ranked by SPS – Sustainable Perception Score)

BrandLogic's top ranked companies for sustainability practices in the consumer discretionary goods industry sector are from a variety of verticals. Companies aligned with entertainment, hospitality, auto manufacturing, apparel and electronics appeared on the list.

First-ranked entertainment/media company Walt Disney with a score of 57.6 leads second-ranked German personal care/ cleaning products maker Henkel by three points.



Source: BrandLogic, 2011

marketing & public opinion

Consumers' Reported "Green" Sensibilities, 2011

(% of respondents, n=2,012)

environmental LEADER ELPRO

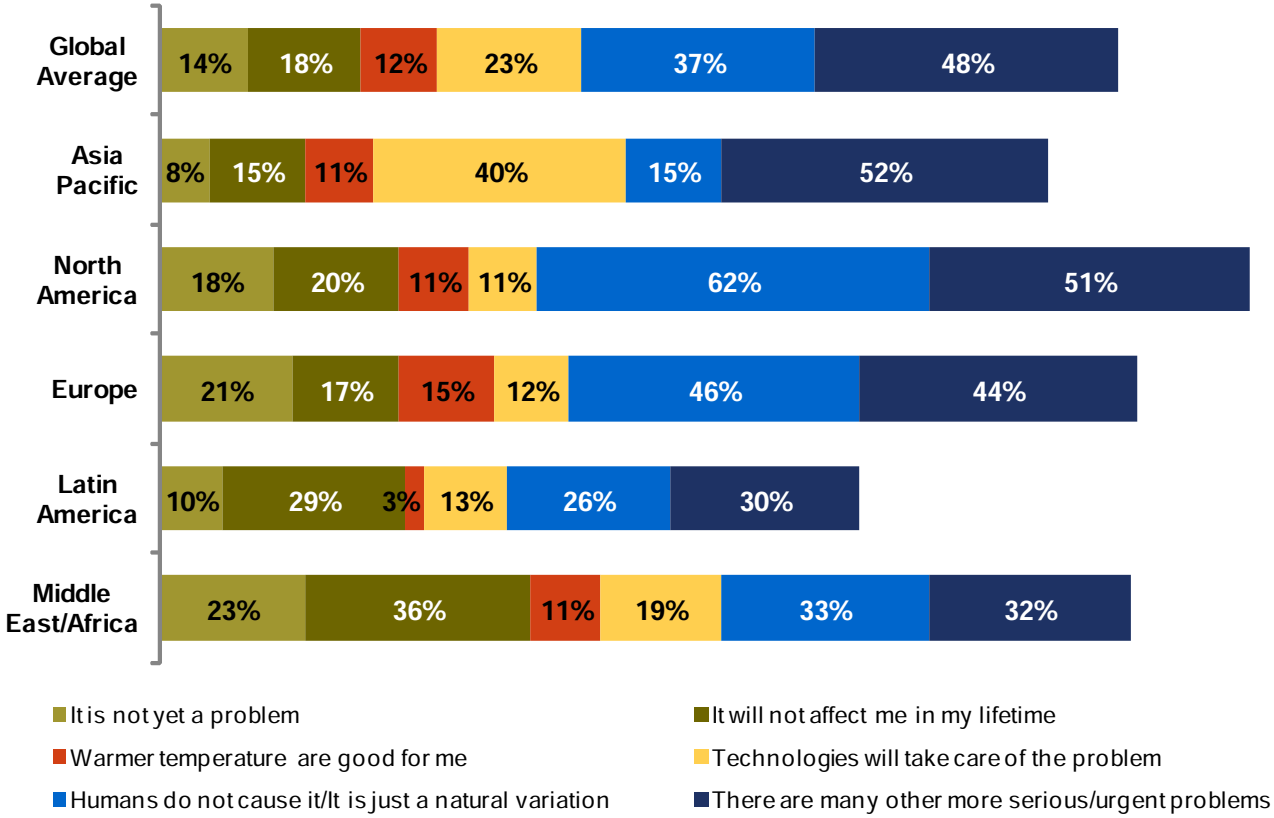
Source: GfK Roper, September 2011

Global Consumers and Climate Change/Global Warming

(% of respondents who are not concerned, multiple choices allowed)

A survey from The Nielsen Company found a number of global consumers who are either indifferent (20 percent) or not concerned (10 percent) about climate change.

But while half (48 percent) of unconcerned global online consumers cite "more urgent and serious matters in the world today" as the main reason for climate change apathy, 37 percent believe that climate change is not the result of human behavior, and 23 percent believe future technologies will solve the problem.



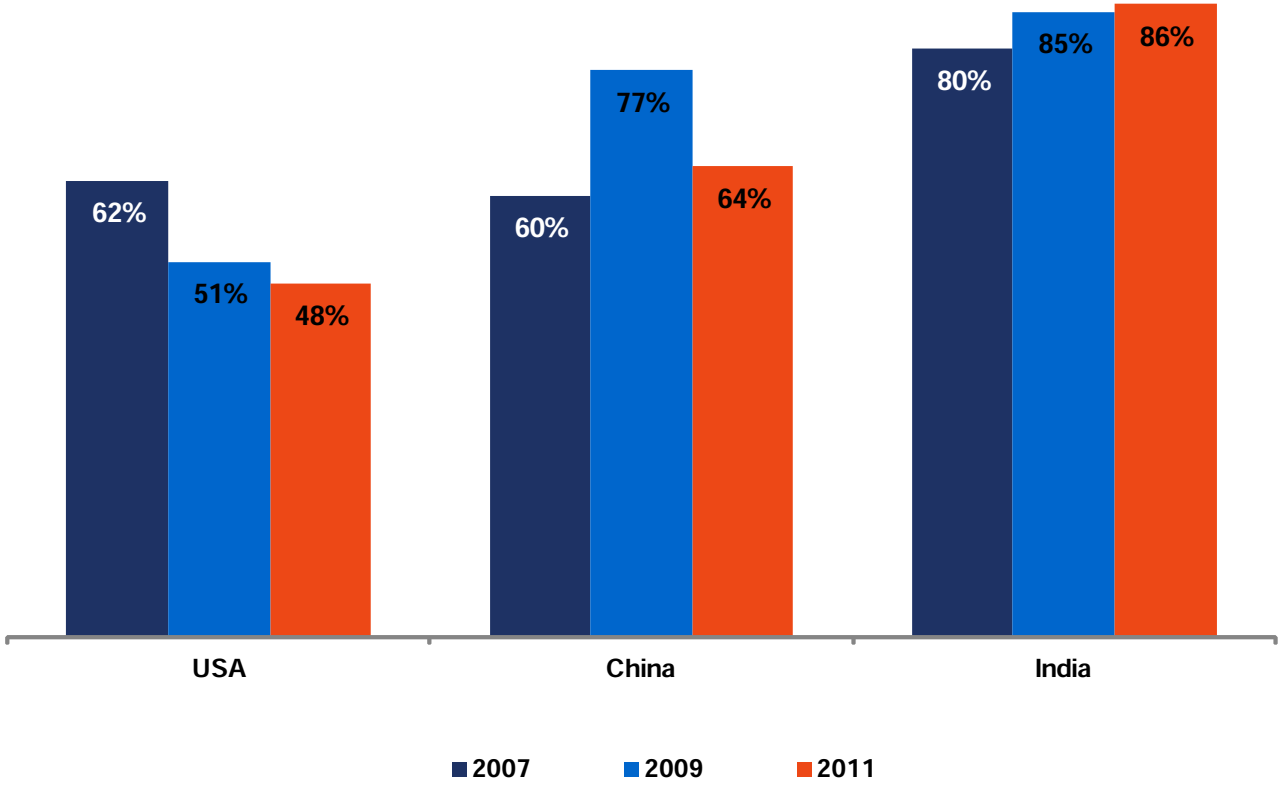
Source: The Nielsen Company, July 2011

Consumer Concern for Global Warming, 2007-2011

(% of respondents)

With their large populations and high CO2 emissions, many consider the United States, China and India instrumental to any potential international climate change agreements. Yet, concern is falling in the U.S., dropping 14 percentage points from 2007 to 2011.

Today, less than half of Americans (48 percent) say they are concerned about climate change. In 2007, 62 percent had concerns about climate change.



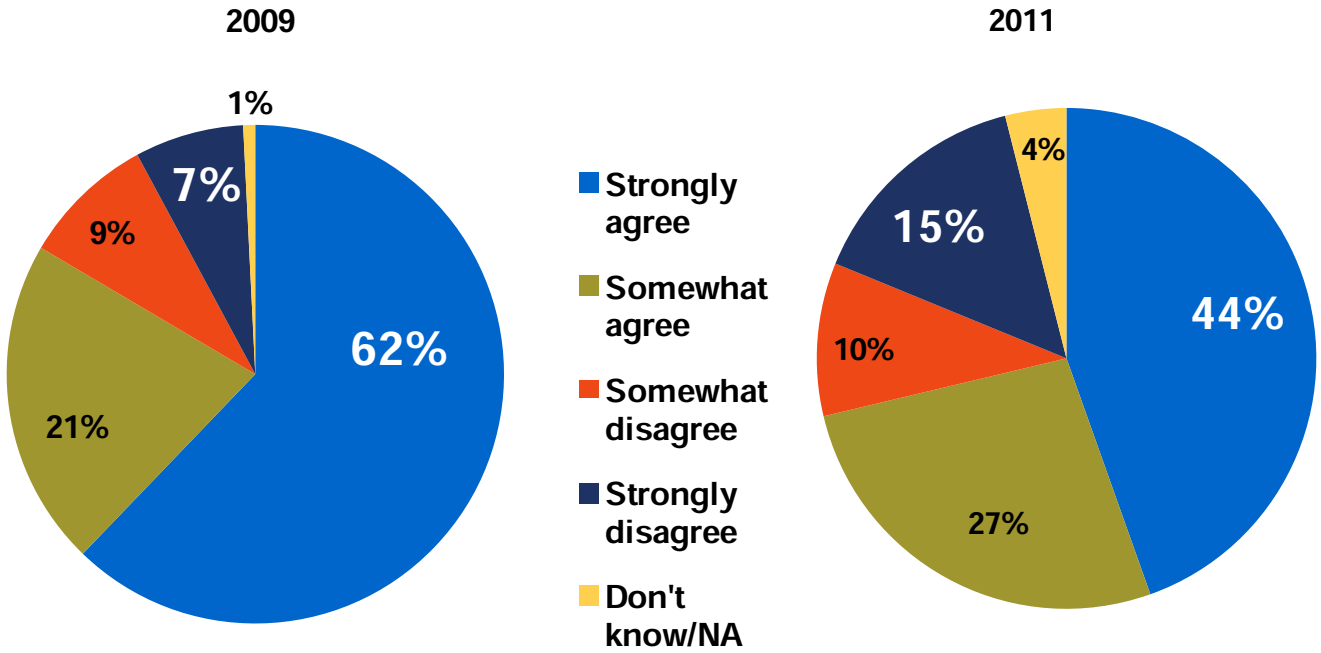
Source: The Nielsen Company, July 2011

Support for Future Nuclear Energy Plants

(% of respondents, n=1,152 adults living in 10-mile radius of a nuclear plant)

"Plant neighbors" – full-time residents within the 10-mile radius of each U.S. nuclear power plant – were surveyed by the Nuclear Energy Institute to gauge public support for the building of more nuclear power plants.

Coming after the Fukushima nuclear crisis in Japan, the result show a good deal of erosion for public support for the building of more nuclear power plants. Those who agree – either "strongly" or "somewhat" – fell from 83 percent of respondents in 2009 to 71 percent of respondents in 2011.



Source: Nuclear Energy Institute (NEI), June 2011

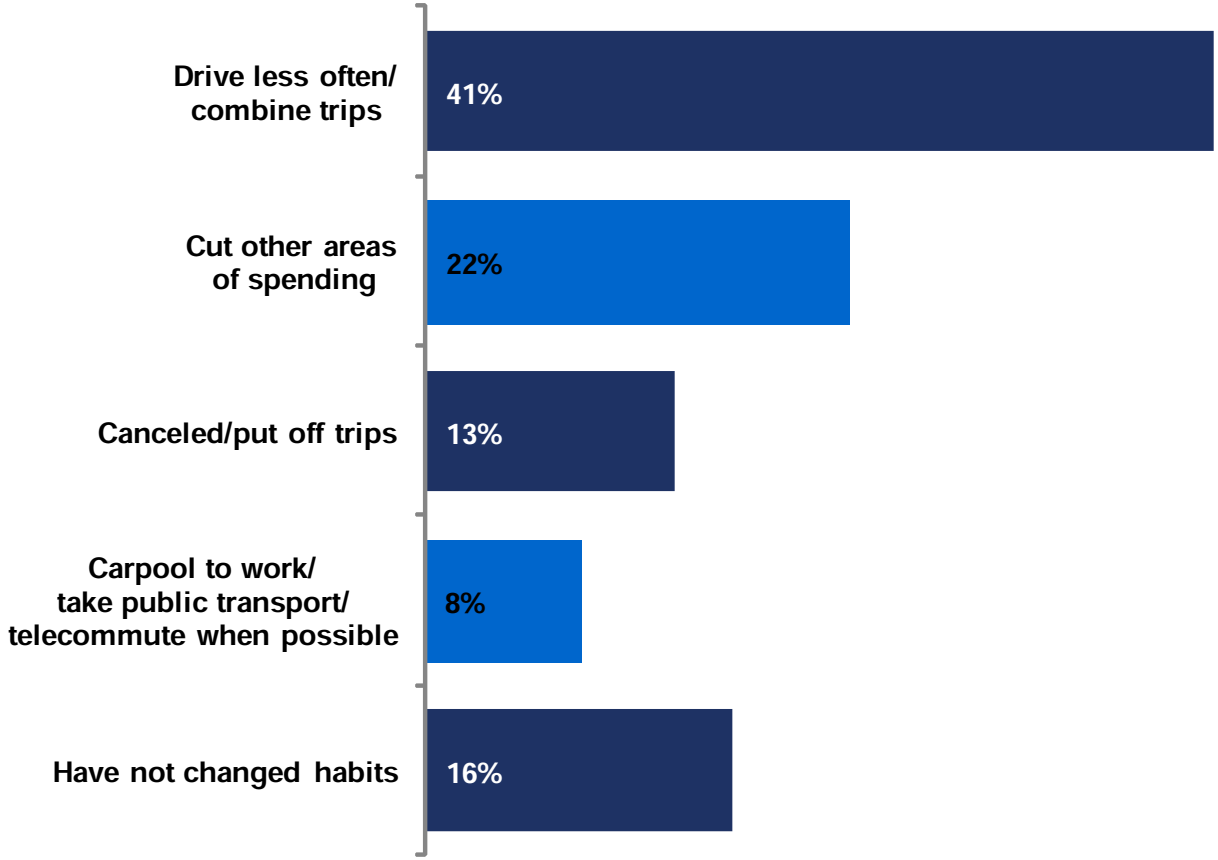
Consumer Reaction to High Fuel Costs

(% of respondents)

In a survey of U.S. consumers from employee assistance programs (EAP) provider ComPysch, only 16 percent of respondents have reported no change to driving habits in reaction to increasing gas prices.

41 percent reported that they drive less often and try to combine trips, while 13 percent have canceled/delayed trips.

Less than one in ten – 8 percent of respondents – have started to carpool, use public transportation or telecommute as a result of higher fuel costs.



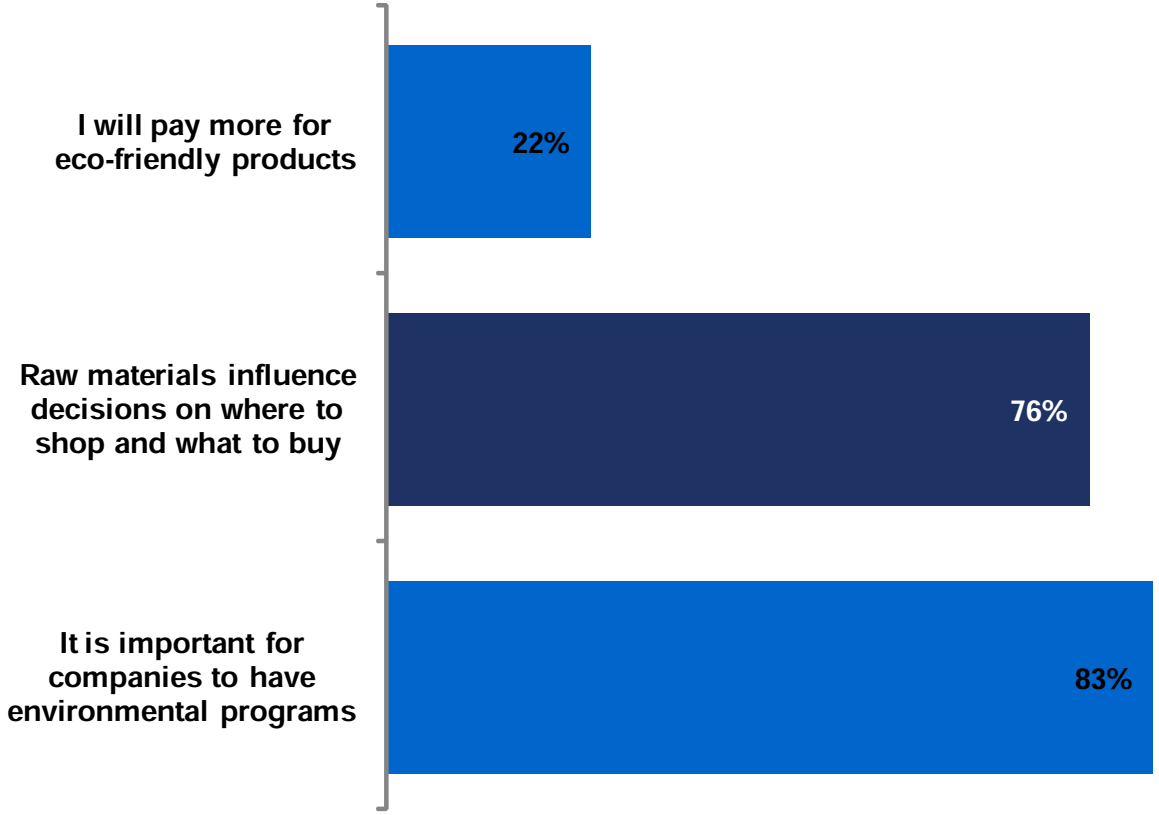
Source: ComPsych, July 2011

Consumer Opinion of Green Products and Initiatives

(% of respondents)

Overall, 83 percent of global online consumers say that it is important that companies implement programs to improve the environment, but only 22 percent say they will pay more for an eco-friendly product.

Many consumers reported a personal preference for eco-friendly goods, but large percentages of respondents report setting aside this preference and buying whichever product is cheapest, the Nielsen study found.



Source: The Nielsen Company, July 2011

Brown, Deeply Rooted in Green

WE ♡ LOGISTICS™

UPS has been carving out ways to improve efficiencies for more than 100 years. It wasn't always called being "green," but the idea of being a more environmentally responsible and efficient company is deeply rooted at UPS.

- **Efficient operations.** We strive to lower the miles we drive and fly, which reduces fuel use and emissions. Last year, we avoided driving more than 63.5 million miles, and associated emissions of 68,000 metric tons.
- **Our alternative fuel fleet.** We operate all-electric, electric hybrids, natural gas, hydraulic hybrids and propane vehicles in our fleet, and reached a 200-million-mile milestone last year.
- **A commitment to transparency.** UPS extensively reports its environmental impact in its annual sustainability report and with third-parties. We received the highest score in the 2011 Carbon Disclosure Project, and we were chosen by Maplecroft as a Climate Innovation Leader, which ranks companies on climate innovation and carbon management programs.
- **An efficient global network, utilizing all modes of transportation, including rail and ocean.** Whenever possible, UPS shifts from air to ground and ground to rail to lower our carbon emissions and conserve fuel. This same flexibility is available to our customers.
- **Carbon Impact Analysis.** Measuring your carbon impact across the supply chain must be meticulous and accurate. Our calculations follow the Green House Protocol, and our inventory is both certified and third-party assured.
- **UPS carbon neutral shipping to mitigate the emissions created by shipments.** UPS will buy highly-credible offsets on your behalf.
- **Eco Responsible Packaging Program.** Choosing sustainable materials while protecting your product with a minimum of packaging requires a carefully calibrated approach. We can help you get there.

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