



To: The California Air Resources Board

Regarding: BCSE Comments on Climate Change Scoping Plan, a *Framework for Change*

Date: December 9, 2008

Submitted: Via the California Air Resources Board Website

The Business Council for Sustainable Energy (the Council) appreciates the opportunity to provide comments on the State of California's Climate Change Scoping Plan, *A Framework for Change*, which will be adopted at a December 11 meeting of the California Air Resources Board (CARB). The Council views California's Scoping Plan as an important vehicle to reduce greenhouse gas emissions. In addition, as the nation faces urgent and unprecedented economic pressures, it is important to note that deployment of existing clean energy technologies and energy efficiency, as envisioned by the Scoping Plan, will stimulate the economy and create jobs in the western region.

It is important to note that as a diverse business coalition not all members endorse or take a position on the recommendations below.

California Leadership

The Council commends California on its leadership in developing the Scoping Plan to reduce greenhouse gas emissions, and particularly commends the State for the recognition that significant progress can be made toward emission reduction goals by relying on existing technologies and improving the efficiency of energy use. The Council believes that all technologies at our disposal will be required to tackle the challenge of global climate change. However, between now and 2020, existing clean energy technologies such as renewable energy, energy efficiency and natural gas are the first phase solution to strengthen the U.S. economy, meet increasing energy demand, provide energy security, and reduce greenhouse gas emissions.

While there may be a number of areas where the Scoping Plan needs some additional clarification and details, we view the plan as an important first step.

In brief, the Council offers the following comments on the Scoping Plan:

- In addition to the greenhouse gas emission reduction benefits, the Council believes it is important to note that implementation of the Scoping Plan's policies to deploy clean energy technologies and energy efficiency will speed the economic recovery and put people to work;
- The Council supports the development of a California cap-and-trade program that links with other compatible regional, national and international cap-and-trade programs. This would ensure lowest-cost compliance and increase global market liquidity;
- The Council applauds policies in the Scoping Plan that build upon California's success in implementing energy efficiency measures;
- The Council strongly supports the proposal for 4000 MW of new Combined Heat and Power (CHP) generation by 2020 as modeled by ARB;
- The Council strongly supports the inclusion of an offset program. Offsets play an important role in deploying clean energy technologies, reducing greenhouse gas emissions and reducing the cost of the program;

- The Council encourages the State to work aggressively to remove barriers that hinder the use and development of renewable energy, or to advocate for the removal of such barriers that are not under the State's control; and
- The Council urges CARB to consider the issue of the ability of eligible¹ voluntary purchasers of renewable energy to reduce greenhouse gas emissions below the level of the cap in conjunction with all allowance allocation decisions.

Introduction to BCSE Efforts in Support of Market-Based Measures to Reduce Greenhouse Gas Emissions

The Business Council for Sustainable Energy is an industry coalition that includes businesses and trade associations representing the suite of currently available technology options for reducing emissions of greenhouse gases that contribute to global climate change.

Clean energy technologies represented in the Council's membership include: advanced batteries, biomass, biogas, fuel cells, geothermal, hydropower (including new waterpower resources such as ocean, tidal and in-stream hydrokinetic), solar, wind, and supply-side and demand-side energy efficiency. We have several members who are based in California, as well as others that are very active in the region's markets, including Sempra Energy, PG&E Corporation, Iberdrola Renewables, SMUD, First Environment, Inc., Calpine, 3 Degrees, Enel North America, EcoSecurities, Qualcomm, and Solar Turbines. The coalition supports the establishment of market-based programs for clean energy technology innovation, economic efficiency and enhanced energy security.

The Council and its members have been working consistently with state, federal and international policymakers on market-based measures to reduce greenhouse gas emissions since its inception in the early 1990s. The Council was the first industry coalition to support a binding multilateral regime to address climate change, and has led business delegations of our members to the international negotiations. On the federal level, the Council has been actively involved in the congressional debate over climate change legislation and has been invited to provide testimony to Congress.

The Council has also provided extensive industry expertise to the states. For example, throughout the RGGI process, the Council has provided expertise on how RGGI implementation can expand clean energy investments in the northeast. The Council has worked directly with commissioners and key staff, and has offered recommendations on how RGGI allowance value could be best directed to deploy clean energy technologies. The Council has facilitated several public issue forums in key RGGI states exploring issues of allowance allocation and how to direct auction proceeds to supply-side and demand-side energy efficiency and renewable energy. The Council's next issue forum will be held in New York City in early January 2009.

The Council has been involved throughout the Western Climate Initiative process and is currently working with WCI to provide a similar issue forum for the western region.

In all areas of our work, the Council focuses on the development of efficient market design that recognizes past investments, and provides forward signals to investors in clean energy technologies. We also emphasize the vital role of energy policy in the development of climate change programs.

Leveraging the experience of our members in renewable and low-carbon energy generation, clean energy technology, and project development, the Council respectfully submits the following comments on specific provisions of the Scoping Plan.

¹ Eligible renewable resource types should include resources that are eligible for the California RPS.

Of note, as a diverse business coalition, not all Council members endorse or take positions on the set of recommendations listed below.

Clean Energy and Energy Efficiency Industries are Ready to Lead the Economic Recovery

In addition to the emission reduction benefits of existing clean energy technologies, California has long recognized their economic benefit. As the nation now faces new and unprecedented economic challenges, it is important to note that deployment of existing clean energy technologies will foster U.S. economic growth and create new high-quality jobs. Wind, solar and other renewable energy projects, along with energy efficiency improvements, are proven economic engines, which are already creating millions of new, high paying jobs vital to the nation's economic competitiveness and prosperity, and they offer significant growth potential in the years ahead. These "green" jobs are often related to specific structures or locations and cannot typically be outsourced, thereby resulting in high quality jobs in California and throughout the U.S.

Linkages to Other Compatible Regional, National and International Cap-and-Trade programs

The Council supports the establishment of market-based programs for clean energy technology innovation, economic efficiency and enhanced energy security. We are encouraged that the Scoping Plan envisions development of a California cap-and-trade program that links with other Western Climate Initiative (WCI) Partner programs to create a regional market system. The Council encourages linkages to other state greenhouse gas initiatives, as well as international greenhouse gas initiatives. From an industry perspective, it is essential to have regulatory certainty and consistency to effectively tackle the challenge presented by global climate change.

While the Council believes that many of the more traditional command and control-type elements in the Scoping Plan will provide needed direction, we encourage a greater emphasis on, and use of, markets. Depending on the design, a market-based program can spur unprecedented levels of energy efficiency, and use of clean, renewable energy.

In contrast to traditional regulatory models that mandate specific control technologies for compliance, market-based programs internalize the environmental costs of a given activity and create a financial value for over compliance. Market-based programs take advantage of economic efficiencies and provide flexibility that permits entities to choose the best control option to achieve results – in many cases at a lower cost than traditional methods. Further, market-based programs can lead to technological innovation because of the function over-performance plays in creating financial incentives.

Expansion and Strengthening of Existing Energy Efficiency Programs and Building Standards

The Council supports policies, such as those outlined in the Scoping Plan that would:

- Create a strong price signal to reduce emissions and to invest in energy efficiency;
- Recognize, reward and provide incentives for energy efficiency investments; and
- Establish policies that will increase the efficiency of our buildings and our economy through existing programs that work and new innovative measures at the state and federal level.

Addressing the multiple challenges to deployment of energy efficiency is complex and requires a diverse set of measures, including coordinated market transformation initiatives, use of a variety

of private sector service providers, procurement policies and utility programs. The Council has taken an active role in identifying and promoting the types of measures that would increase energy efficiency through building codes and market measures, and welcomes the opportunity to share these ideas with the State of California as energy efficiency measures outlined in the Scoping Plan are further developed.

Greater use of energy efficiency, focused on both supply-side and demand-side applications, can play a substantial role in reducing greenhouse gas emissions – especially in the early years of a climate change program. As a recent McKinsey & Company report shows (attachment A), improving energy efficiency in buildings and appliances represents the most cost effective cluster of greenhouse gas emissions abatement potential. This report reconfirms that the efforts California has made in the past to improve energy efficiency have been a success, and the Council commends the State for continuing to make energy efficiency a priority in the Scoping Plan.

Given the vital role that energy efficiency will play in reducing emissions and lowering compliance costs, any financial incentives for energy efficiency should be large-scale and front-loaded.

Measures to Utilize Combined Heat and Power (CHP)

The Scoping Plan proposes 4000 new MW of Combined Heat and Power (CHP) by 2020. The Plan describes the existing barriers to CHP and states that the California Public Utilities Commission will address the issue in 2009.

The Council strongly supports the proposal for CHP as modeled by the ARB and believes this measure may help obviate new sources of emissions. Where baseload thermal load exists, CHP can be a greenhouse gas reduction measure. The Council applauds the state for recognizing how existing barriers prevent CHP deployment in California and strongly agrees that such barriers should be reviewed and new policies considered as CHP represents a practical and sensible measure, which is available today for realizing significant greenhouse gas reductions.

An Offset Program Can Significantly Reduce Costs of the Program

The Council strongly supports the inclusion of an offset program in the Scoping Plan. Offsets play an important role in deploying clean energy technologies, reducing greenhouse gas emissions and reducing the cost of the program.

The ability for entities to generate and purchase offset allowances is an essential feature of a market-based approach to reducing greenhouse gas emissions due to its cost containment characteristic. Under a compliance offset program, covered entities are permitted to help meet some portion of their obligation to reduce greenhouse gas emissions by purchasing offset allowances generated from projects or activities that fall outside the scope of an emissions cap. This flexibility provides covered entities with the ability to achieve needed emission reductions at the lowest cost given their own economic situation.

While the Council encourages covered entities to undertake internal emission reduction activities such as deploying renewable energy and energy efficiency to the greatest extent possible, our members view offset purchases as an important complementary tool to help covered entities manage compliance costs, widen the scope of environmental benefits, deploy existing and new clean technologies that have not yet achieved market penetration, and lower economic costs for energy consumers.

As with other aspects of market-based initiatives to address climate change, the details and structure of a compliance offset program will play a critical role in determining successful

implementation, as well as achieving desired greenhouse gas emission reductions. The Council believes that ensuring the environmental integrity of offset allowances is essential in order to meet desired emission reduction levels. Real and additional offsets must be the standard for program integrity. Independent, third-party monitoring and verification requirements are also necessary to ensure that greenhouse gas emission reductions are delivered.

The Council offers the following recommendations to ensure the utmost integrity with respect to the design and implementation of an offsets program:

- Emissions offsets must be real, additional, permanent, independently verifiable, enforceable, measurable, and transparent
- Promote broad eligibility for offsets across project types, sectors and activities
- Permit broad use of emissions offsets by entities with compliance obligations
- Reward early action to reduce greenhouse gas emissions with offsets
- Promote linkages with other domestic and international offset programs, and permit fungible use of eligible offsets generated from within such programs
- Utilize a standards-based approach for offset projects while allowing for case-by-case review of projects without pre-approved methodologies²
- Employ multiple tests for demonstration of offset “additionality”³
- Utilize standardized emission factors

While many offset projects deliver co-benefits (such as reductions in conventional air pollutants, improvements in sustainability and biodiversity, and economic development for disadvantaged communities), the focus of climate change policy should remain on reducing greenhouse gas emission. Co-benefits therefore should not be required for the approval of offset projects.

Offset Project Types and Protocols

The Council recommends that every effort should be made to decide upon an initial list of approved project types, possibly including approved baseline and monitoring methodologies. The Air Resources Board should draw upon existing methodologies utilized by the Regional Greenhouse Gas Initiative (RGGI), the California Climate Action Registry (CCAR), EPA’s Climate Leaders Program, and the Clean Development Mechanism (CDM), which should allow for the timely development of an offset system. The Council supports using a standards-based offsets program in lieu of a case-by-case review of individual offsets projects, which has caused issues with administrative efficiency and consistency in the case law approach used by the CDM.

² The Council supports using a standards-based offsets program in lieu of a case-by-case review of individual offsets projects, which has caused issues with efficiency and consistency in the case law approach used by the Clean Development Mechanism.

³ In developing standards for additionality, the Council wishes to caution against the use of pure financial additionality tests in determining offset project eligibility. Financial additionality can be part of a range of factors, but it should not be the only way of proving additionality, nor should it be weighted more than other additionality tests. In our experience, financial additionality tests alone deter good projects and weaken the credibility and market power of offset programs. Further, financial additionality tests are subject to gaming and cannot reasonably account for market behavior. Instead, we recommend practical application of a number of “barriers tests,” as is recommended by the World Resource Institute’s Greenhouse Gas Protocol for Project Accounting at:

http://www.ghgprotocol.org/DocRoot/m1Tv5lnUuFTjYZx3x1ev/GHG_Project_Protocol.pdf

Overly Restrictive Limits on the Use of Offsets as Compliance Tool Should be Avoided

The Council supports policies which encourage regulated entities to directly reduce emissions. However, the Council does not believe that the Scoping Plan should place overly restrictive limits on the use of offsets for compliance by regulated entities. Regulated entities should be able to supplement and control costs in achieving greenhouse gas emission reduction requirements through the reasonable use of offsets.

Geographic limitations on offsets could significantly affect the availability of low-cost offsets within the region, ultimately causing an increase in compliance costs, hindering the development of the offset market, limiting opportunities for offset developers to invest in the deployment of clean technologies, and possibly putting the region's affected entities at a competitive disadvantage compared with affected sources in other offset markets.

Additionally, a banking feature should be included allowing entities to "bank" unused credits for future years.

Offset Program Administrative Structure and Function

The Council recommends selecting or developing a centralized offset registry to ensure integration with the emissions reporting and allowance tracking system of the cap and trade system. To ensure the integrity of the carbon markets and prevent double-counting, the Council believes each greenhouse gas emission credit should be uniquely identified and registered in one or more registries that have adequate measures to ensure transparency and accountability.

The Scoping Plan should establish linkages with other state and international greenhouse gas initiatives. These linkages should demonstrate compatibility, and should be verifiable and transparent. The program should be designed to permit trading with compatible cap-and-trade programs and project-based initiatives elsewhere in the U.S. at the state, regional or federal level, as well as in other parts of the world.

Further, the Council encourages the Air Resources Board to consider an early action program that may include offsets from other regulatory offset schemes and/or high-quality voluntary schemes.⁴

Expansion of the Renewables Portfolio Standard to 33 Percent

The Council supports the Scoping Plan's intention to increase the use of clean, renewable energy and supports an expansion of the Renewables Portfolio Standard to include both investor owned utilities and public utilities.⁵ The Council believes that to succeed in expanding the Renewables Portfolio Standard to 33%, however, the State of California must take an active role to remove barriers that hinder the use and development of renewable energy, and should advocate for the removal of such barriers that are not under the State's control. These barriers include, but are not limited to: permitting issues, long-term production and investment tax credits, modifications to the production tax credits recently enacted by Congress, which have been

⁴ Early action programs such as those supported by state public utility commissions and other regulatory agencies (i.e., The Climate Trust in Oregon).

⁵ BCSE supports development of all renewable and clean generation resources, including advanced batteries, biomass, biogas, fuel cells, geothermal, hydropower (including new waterpower resources such as ocean, tidal and in-stream hydrokinetic), solar, and wind. The Council also supports the use of renewable energy credits (RECs) to meet the RPS.

rendered meaningless in the current economic environment, financing mechanisms, and the need to expand and modernize the transmission grid.

Aggressive State Effort Needed to Meet Renewables Portfolio Standard

Current electricity infrastructure requires significant expansion and upgrading to meet growing U.S. energy demand and to improve efficiency. An expanded and improved transmission system could cut energy costs (lowering line losses; improving system peak efficiency) and better deliver power from areas more remotely situated, but which have significant potential to produce low or zero carbon energy. An improved grid could also provide greater reliability, flexibility for distributed generation and demand side management, including the realization of 'smart grid' applications.

In order to meet the expanded renewable portfolio standard the State should facilitate the transition to smarter, more efficient transmission and distribution grids and technologies which allow a broad portfolio of technologies that are cleaner, more reliable and agile. Increased use of distributed generation (DG) will potentially improve electric power quality for customers with DG, support the Energy Security Initiative; potentially increase power reliability for customers with DG, allowing users options for virtually uninterrupted power; and level out peaks, thus lowering energy costs. In addition, the use of time-based electricity pricing or "smart metering" technologies should be encouraged to save consumers billions of dollars in avoided electricity costs and significantly reduce greenhouse gas emissions through avoided electricity use.

Benefits of Anaerobic Digestion and Biogas in Meeting the Renewables Portfolio Standard

The Council applauds the recognition in the Scoping Plan of the benefits of anaerobic digestion and biogas. Methane is a potent greenhouse gas and methane emissions from agricultural livestock and organic waste contribute to global climate change. By creating incentives for changes in manure management practices, wastewater treatment processes, increased source separation of organics from methane-producing activities, and encouraging the capture and beneficial use of biogas as a renewable resource, the State can achieve greater greenhouse gas emission reductions.

Biogas produced from livestock-based anaerobic digesters is already an important contributor to the State's efforts to produce 12 percent of California's retail electric load from renewable resources. Efforts to increase the Renewable Portfolio Standard to 33 percent will require an even greater contribution from this resource. However, anaerobic digestion is only one of a broad range of options that exists to encourage reductions from this sector. The Council supports the conclusion in the Scoping Plan that providing economic incentives such as marketable emission reduction credits, favorable utility contracts, or renewable energy incentives will stimulate the implementation of various captured gas methods and methane reduction, and that efforts to mandate the use of digesters would not be an appropriate path.

The initiative undertaken by the Air Resources Board and the California Climate Action Registry on developing a livestock digester protocol already assures that digester projects that do get constructed can quantify their emission reductions in a verifiable manner that ensures the integrity of any offsets that might be used for compliance obligations in other sectors.

Recognition for Voluntary Renewable Energy Markets

BCSE urges CARB to consider the issue of the ability of eligible⁶ voluntary purchasers of renewable energy to reduce greenhouse gas emissions below the level of the cap in conjunction with all allowance allocation decisions.

Doing so will allow the voluntary market to help California exceed its goals for renewable energy development and greenhouse gas reductions.

In its consideration of this policy supporting voluntary renewable energy purchases, CARB should review data to determine the size of the eligible voluntary market and the effect of such policy support on the cost of greenhouse gas emission allowances, the retail price of electricity, and the overall economic impact of such a policy.

For purposes of this policy, voluntary renewable energy markets include: *renewable energy* sold directly to customers in restructured electricity markets, renewable energy *certificates* sold to retail customers in both restructured and monopoly markets, renewable energy that is sold to consumers through *utility green pricing programs*, and renewable energy *certificates* that are translated into pounds of carbon dioxide equivalents and sold in voluntary *carbon markets*. Voluntary markets have been important in the development of new renewable facilities. One of the key drivers for these markets is the ability to offset emissions associated with electricity consumption (to reduce a company's greenhouse gas footprint or to help reduce global warming impacts).

These transactions operate without government subsidies, so the environmental benefit of a voluntary renewable energy market is in addition to any benefit that government action produces. Voluntary renewable power markets are growing rapidly in many regions of the country, and are expected to be a larger driver for new renewable energy additions and voluntary carbon reductions in the future.

As long as California has been without a fixed cap on greenhouse gas emissions, purchasers in the voluntary market have felt confident that their purchases have displaced fossil generation and resulted in emission reductions. Consequently, these purchasers have been able to make public statements about how they are reducing emissions, and those claims have been easily substantiated.

When a fixed cap on emissions is established in 2012, voluntary purchases of renewable energy will still displace fossil generation, but the number of emission allowances—and hence the level of emissions produced—will be unaffected, and the emission reduction claims will become problematic. Unless allowances are retired with voluntary renewable energy purchases, starting in 2012, voluntary renewable energy purchases will no longer reduce greenhouse gas emissions.

Further, it is our understanding that the rules to implement the cap-and-trade program will be written in 2009 and 2010, but the Scoping Plan does not include explicit direction to include the emission reduction value of voluntary renewable power purchases. Since the Scoping Plan is widely recognized as the “roadmap” for future rulemaking, the market-based emission reductions taken by voluntary stakeholders may be left off the table and should be included in future discussions of the use of allowances to promote cost effective GHG reductions while protecting California consumers and minimizing negative market impacts.

Therefore, the Council requests that the Scoping Plan consider voluntary purchases of renewable energy, renewable energy certificates and on-site renewable generation for the greenhouse gas

⁶ Eligible renewable resource types should include resources that are eligible for the California RPS.

emissions reduction benefits that they provide. The Scoping Plan should state that the role of voluntary renewable purchases in achieving California's goal will be developed and described in the formal cap-and-trade rulemaking.

Development of a Cap and Trade Program that Links with Other WCI Partner Programs to Create a Regional Market System

The Council supports the development of a California cap-and-trade program that links with other WCI Partner programs to create a regional market system. The new and existing regulations, and other measures, outlined in the Scoping Plan will provide needed direction to that regional market.

In general, the Council supports linking California's greenhouse gas program with other compatible regional, national and international cap-and-trade programs to ensure lowest-cost compliance and increase global market liquidity. In addition to the linkages with the WCI Partner Program, the Council supports strong linkages between California's program and the European Union Emissions Trading System and the Regional Greenhouse Gas Initiative, provided such linkages are based on comparable environmental commodities, and based on allowance transactions that are transparent and verifiable.

The WCI partners should allocate allowances to provide value to energy efficiency, renewables and cleaner generation. The Council strongly supports an output-based methodology that would distribute allowances based on the amount of electricity generated, not on the amount of fuel used or historic emissions. With this focus on output over emissions, energy efficiency, carbon efficiency and cleaner generation sources – including renewable energy – are directly encouraged. The Council recommends a fuel-neutral, updating, output-based allocation. Output-based policies send a clear signal to the marketplace that lower-carbon emitting energy options receive direct, clear, consistent and bankable value.

Conclusion

The Council views the Scoping Plan as an important vehicle to reduce greenhouse gas emissions in the western region and the Council congratulates the State for its leadership and action. The Council appreciates the opportunity to provide comments and looks forward to providing additional comments throughout the regulatory process in 2009 and beyond.

If you have any questions or comments about the BCSE, please feel free to contact me or Ruth McCormick in the Council's offices.

Sincerely,



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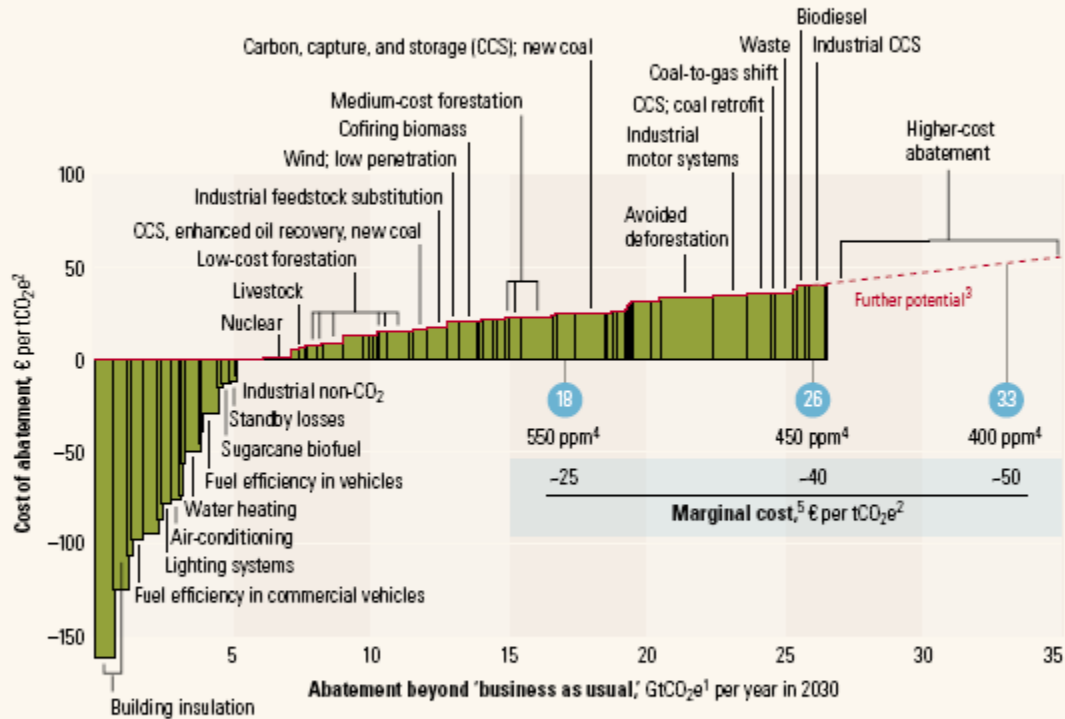
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Attachment A

What might it cost?

Global cost curve for greenhouse-gas abatement measures beyond 'business as usual'; greenhouse gases measured in GtCO₂e¹

● Approximate abatement required beyond 'business as usual,' 2030



¹GtCO₂e – gigaton of carbon dioxide equivalent; “business as usual” based on emissions growth driven mainly by increasing demand for energy and transport around the world and by tropical deforestation.

²tCO₂e – ton of carbon dioxide equivalent.

³Measures costing more than €40 a ton were not the focus of this study.

⁴Atmospheric concentration of all greenhouse gases recalculated into CO₂ equivalents; ppm – parts per million.

⁵Marginal cost of avoiding emissions of 1 ton of CO₂ equivalents in each abatement demand scenario.

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⁷ Enkvist, Per-Anders, Tomas Nauclér and Jerker Rosander. 2007. “A Cost Curve for Greenhouse Gas Reduction.” *The McKinsey Quarterly* 1: 38.