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DATE: 20 November, 1997	PAGES: 18
SUBJECT: CLIMATE CHANGE	

Please find attached a copy of the Australian Prime Minister's Statement on Climate Change.

Stephen Deady
Minister/Counsellor (Commercial)

**CLIMATE CHANGE
ANNOUNCEMENT OF PACKAGE OF MEASURES
BY THE PRIME MINISTER**

Following is the text of the Australian Prime Minister's Statement on Climate Change delivered in the Parliament on 20 November 1997.

The Statement contains a strengthened package of domestic greenhouse measures. The package contains two key components:

- . provides \$180 million over 5 years, mostly directed at new programs or substantially expanded existing programs
- . includes regulations - covering strengthened building codes and appliance standards, targets for increased use of renewable energy and new fuel efficiency standards.

This package shows that the Australian Government is very serious about dealing effectively with this long term global challenge. The package will result in a substantial reduction in Australia's projected emissions growth (one-third off business as usual emissions). Also the Government will be moving to implement these measures immediately, independent of action by other countries and the outcomes of the Kyoto meeting. With these measures, Australia's overall effort is broadly comparable with what the EU and the US propose to achieve.

On the international negotiation issues, the PM's Statement reiterates that Australia believes that the international response to climate change must be effective in terms of meeting the environmental challenge, equitable in terms of the costs to be borne by individual countries and least damaging as possible to living standards and employment prospects. For these reasons Australia has proposed that individual targets for industrialised countries be differentiated according to national circumstances.

Australia also believes international emission trading would help minimise the costs of reducing emissions and supports trading on the basis of a satisfactory initial allocation of emission entitlements and a practical resolution of the administrative difficulties involved.

Australia looks to Kyoto to support joint implementation as a means of engaging developing countries in the global effort. Furthermore, because action by developed countries alone would be ineffective in tackling this global problem, the Kyoto outcome should provide for procedures and time frames for future commitments for major developing country emitters.

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**STATEMENT BY
THE PRIME MINISTER OF AUSTRALIA**

THE HON JOHN HOWARD MP

**SAFEGUARDING THE FUTURE:
AUSTRALIA'S RESPONSE TO CLIMATE CHANGE**

20 NOVEMBER 1997

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Since its election the Government has addressed the critical issue of global warming in a way that effectively promotes Australia's national interests.

Those interests lie both in protecting Australian jobs and Australian industry whilst ensuring that Australia plays her part in the world wide effort needed to reduce greenhouse gas emissions.

From the start, we have made it plain that Australia would not accept an unfair share of the burden. We have rejected and will continue to reject mandatory uniform targets which advantage many developed countries to the distinct disadvantage of countries such as Australia.

We have also made it plain that we are not prepared to see Australian jobs sacrificed and efficient Australian industries, particularly in the resources sector, robbed of their hard-earned, competitive advantage.

Moreover, we have persistently stressed the need to involve developing countries as their participation is crucial to any lasting solution to the global warming problem.

These principles have guided our approach.

There is now clear evidence that Australia's campaign for equity and realism has won wider support and so, far from our country being isolated on the issue, there is growing international support for the view that the approach of, say, the European Union is both unfair and unachievable.

We have an obligation to defend and protect Australian interests, Australian jobs and Australian industry. We also owe it to future generations of Australians to play an effective role in the global reduction of greenhouse gas emissions.

The Government's approach to development and the environment has been balanced and far sighted.

That approach is reflected in the \$1.25 billion Natural Heritage Trust. The Trust promotes practical ways to rejuvenate the land, rivers and oceans and is the most profound commitment of any government to the environment.

The same balanced approach is behind our Regional Forests Agreements where the practical commitment to equally boost jobs and protect forests has resulted in 409,000 hectares of additional reserves through the two agreements signed so far.

That balance is also reflected in the protection and management of our seas and oceans through the development of a national oceans policy. This will build on the \$106 million already provided through the Natural Heritage Trust for restoring the ocean environment.

This same consistent balanced and far-sighted approach has been applied to the greenhouse gas challenge.

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Today I announce the largest and most far-reaching package of measures to address climate change ever undertaken by any government in Australia.

The package carefully preserves a unique environment and lifestyle for our children's sake, defends wealth creating efficient industries and promotes lasting employment into the future. It provides a durable framework to promote Australia's national interest towards the year 2010 and beyond.

In a comprehensive manner, it replaces and far exceeds the random, disjointed projects of the previous government.

The world's climate scientists have provided us with a clear message - that the balance of evidence suggests humans are having a discernible influence on global climate.

What is required is sober, sensible but forward-looking action to reduce greenhouse gases and this is the approach my Government will adopt.

Although Australia contributes only 1.4 per cent of the world's greenhouse gas emissions we want to play our part in meeting this challenge. But pulling our weight doesn't mean carrying more than our share of the burden. Only with all countries working together, carrying equitable burdens, can we achieve an effective global outcome.

This will require creativity, persistence and in some instances, sacrifices - but the benefits of preserving our environment and quality of life for the sake of our children are too important to forgo.

PLAYING OUR PART - NEW DOMESTIC GREENHOUSE MEASURES

For various reasons Australia is unique.

Our economy has evolved on the basis of our abundant supply of natural resources and efficient production and processing of fossil fuels and mineral resources. Fossil fuels currently provide 94 per cent of our energy needs - far more than other OECD countries.

Our population is expected to grow by 30 per cent from 1990 to 2020 compared to less than three per cent in Europe.

We will continue to experience stronger economic and employment growth than most OECD countries.

Our cities are decentralised and widely separated, resulting in high transport use per capita compared to the smaller, closely populated European Union countries.

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Our trade profile means that about 20 per cent of our greenhouse gas emissions are embodied in our exports (notably aluminium and agricultural products) - double the OECD average and the highest in the industrialised world.

Our emissions profile is also unique amongst developed countries where the energy sector accounts for about half of our emissions, compared with an average of 80 per cent for OECD countries; and where land use and forestry account for around 20 per cent of Australia's emissions. This reflects the significance of agriculture to our economy.

In addition, Australia has a responsibility to export the resources necessary to fuel the growth of her regional partners and to provide the food required for their people.

For all of these reasons our emissions are projected to grow faster than other countries. Uniform target proposals that do not take these circumstances into account will place an unfair penalty on Australia.

Reducing emissions growth is therefore particularly challenging and is more costly for us than for most other industrial countries. But we are still committed to playing our part in cutting emissions.

Without further action, Australia's emissions are expected to grow by around 28 per cent from 1990 to 2010. This is based on a comprehensive approach excluding land use change. Emissions from the energy sector alone are expected to grow by around 40 per cent.

The package I announce today will achieve a dramatic reduction of a third in our expected net emissions growth from 1990 to 2010.

These measures will reduce our net emissions growth from 28 to 18 per cent in that period, or some 39 million tonnes of emissions. This is comparable to the emissions from all the electricity used by households right across Australia.

This is a realistic, even conservative, calculation of the emission benefits. The benefits from plantations and land use changes, for example, could well be greater than we have estimated. With the most effective implementation of the package, the full support of industry and the community, and the best contribution of the States and Territories we may well achieve even greater reductions.

Taken with greenhouse measures Australia already has in place the package will mean Australia's effort broadly compares on the same basis to what the United States and the European Union are proposing. Moreover, we are not waiting for others to act.

None of us should underestimate the commitment required to achieve these outcomes. They will require hard work from all of us. The package gives the lie to those who make exaggerated but ultimately empty claims that fine sounding targets can easily be achieved.

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The measures have been developed against the background of our national circumstances and our national interest. They also have been developed against achievements by Australia to date such as reform of our electricity and gas markets, halving the amount of waste going into landfill by the year 2000 compared to 1990 levels and the efforts of particular industries such as the aluminium industry which will reduce emissions by more than 20 per cent over the same period.

The Government is seeking realistic, cost effective reductions in key sectors where emissions are high or growing strongly while also fairly spreading the burden of action across our economy.

The package will allow us to improve the performance of our highly competitive energy dependent sectors while also stimulating new sectors such as renewable energy. It will demonstrate we can improve the environment whilst generating new jobs and exports. Far from risking 90,000 potential jobs, as would be the case if we accepted some proposals, the measures I announce have the potential to create wealth and jobs.

They address emissions across many sectors - residential, industry, transport, energy, agriculture, forestry and government operations - in an integrated, effective, and above all, fair way.

We are prepared to ask industry to do more than they may otherwise be prepared to do, that is, to go beyond a 'no regrets', minimal cost approach where this is sensible in order to achieve effective and meaningful outcomes.

The Government is providing \$180 million over five years for these measures. This is a significant sum by any standards and a substantial increase in funding. This package far exceeds the efforts by previous governments on addressing the greenhouse problem.

Most of this expenditure will be spent on completely new measures, while some existing programs will be substantially expanded.

Importantly, the level of Commonwealth expenditure does not represent the whole story. These initiatives will stimulate additional actions and investment by the States and Territories, industry, and in some cases, consumers.

Our measures build on those in the draft National Greenhouse Strategy. State and Territory leaders have indicated their support for our greenhouse response and have agreed to work with us co-operatively in implementing it and in considering further action of their own.

Let me outline the specific measures.

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Renewable Energy

Renewable forms of energy currently contribute about six per cent to Australia's total energy needs, an amount comparable to the OECD average of 6.4 per cent. The Government will be committing \$65 million to ensure this level is increased.

By contributing \$21 million, we will create a specialist renewable energy innovation investment fund to provide government and private sector venture capital for companies with high growth potential.

So that we can capitalise on our skills we will provide a \$30 million loans and grants programme for the development and commercialisation of the renewable energy industry. This will directly support the creation of new businesses, jobs and exports. This funding represents a huge increase on the \$4.8 million over four years spent by the previous government on the Renewable Energy Industry Programme.

And we will also provide \$10 million for some leading edge renewable energy 'showcase' projects in areas such as tidal power solar thermal power and photovoltaic technologies.

The Government will work with the States and Territories to set a mandatory target for electricity retailers to source an additional two per cent of their electricity from renewable energy sources by 2010. This will accelerate the uptake of renewable energy in grid-based electricity and provide a larger base for the development of commercially competitive renewable energy.

This enormous boost to renewable energy development is a huge improvement on programmes such as the Energy Research and Development Corporation which had been overtaken by changes in the energy sector.

Our new programmes will stimulate innovative technologies and wealth-creating businesses and energy suppliers who provide power to communities, employ Australians and export to the world. It is an action-oriented approach.

Energy Market Reform

The possibilities for fuel substitution and innovation will be enhanced as we continue and accelerate the process of energy market reform.

We will work with the States and industry to develop and implement by the year 2000, efficiency standards for fossil fuel electricity generation, including for brown and black coal and gas fired plants.

This will ensure the adoption of best practice new technology in each fossil fuel class. Standards will also be phased in to encourage emissions reductions in existing plants. The standards will apply to new electricity generation projects and existing generation.

These initiatives mean that Australian energy suppliers will be able to stand tall when it comes to being clean, green and cost competitive.

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Automotive Industry

In 1995, ten per cent of Australia's net emissions were generated by cars, four wheel drives and light commercial vehicles.

We will implement an Automotive Industry Environmental Strategy, in consultation with the automotive and oil industries and other stakeholders, to enhance the industry's environmental performance.

This strategy will involve several elements including:

- mandatory, model specific, fuel efficiency labelling;
- harmonised noxious emissions standards with international standards by 2006;
- a 15 per cent fuel efficiency improvement target by 2010 over business as usual through negotiation with automotive companies; and
- bringing forward the phase-out of leaded petrol, taking equity considerations into account.

The Government will also develop a basic network of compressed natural gas refuelling stations in selected metropolitan areas to encourage light commercial vehicles to switch to this more environmentally friendly fuel.

These measures will reduce air pollution and improve the health of our cities as well as reducing greenhouse gas emissions.

Codes and Standards

The Government will also work with the States, Territories and industry to develop energy efficiency codes and standards for housing and commercial buildings, appliances and equipment

For industrial and commercial appliances and equipment we will implement an improved labelling programme and minimum energy performance standards.

We will expand the Nationwide House Energy Rating Scheme by including a minimum energy performance requirement for new houses and major extensions and we will work with the States, Territories and industry to develop voluntary minimum energy performance standards for new and substantially refurbished commercial buildings.

These initiatives will take us to best practice standards in these important areas. If this voluntary approach does not achieve acceptable progress within 12 months, we will work to implement mandatory standards.

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Tree Planting and Revegetation

Plantations and revegetation are important means of soaking up greenhouse emissions - known as greenhouse sinks.

The Government will work to remove impediments to the development of commercial plantations to achieve the Plantations 2020 vision of trebling the plantation estate by 2020. We will establish a Bush for Greenhouse Programme to encourage corporate funding of revegetation projects to act as sinks.

This will build on the \$22 million for farm forestry and the massive \$328 million revegetation programme being undertaken under the Bushcare Initiative of the Natural Heritage Trust, which represents the largest revegetation effort ever undertaken with almost a tenfold increase on the funding of revegetation programmes of the previous Government.

Greenhouse Challenge programme

The Greenhouse Challenge programme is central to the partnership between government and industry to reduce emissions.

This programme currently has 100 signed agreements with businesses from a wide range of sectors.

In total, companies that have signed agreements account for over 45 per cent of Australia's industrial emissions.

Participants have committed themselves to reduce their forecast growth in emissions by about 22 million tonnes of carbon dioxide equivalent by the year 2000.

The announcement today provides extra funding of \$27 million to extend the programme to smaller companies and to increase the number of large and medium company participants to 500 by the year 2000 and to more than 1000 companies by 2005.

Commonwealth Greenhouse Office

In order to ensure this package of measures is delivered a Commonwealth Greenhouse Office will be established within the Department of the Environment. This Office will have responsibility for the coordination of domestic climate change policy.

The Office will be the lead Commonwealth agency on greenhouse matters. It will provide a mechanism to ensure domestic greenhouse matters receive the priority the issue deserves and the Government intends.

Other Measures

Further measures as part of this statement include action to reduce emissions in urban areas, initiatives to work toward best energy practice in targeted industries, funding

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towards a ethanol pilot plant, the development of a national carbon accounting system, funding to support various National Greenhouse Strategy related measures, and additional funding to ensure commercial joint implementation projects in developing countries.

We are also committed to reducing emissions from the Commonwealth Government's own operations, including purchases of more energy efficient equipment and appliances. We will be setting fuel consumption targets for the Commonwealth vehicle fleet.

AUSTRALIA'S APPROACH: FORWARD LOOKING AND GLOBAL

The Government believes that like our national effort, the international response to climate change must be effective in terms of meeting the environmental challenge, equitable in terms of the costs to be borne by individual countries and least damaging as possible to the living standards and employment prospects of our people.

For these reasons Australia has proposed that individual targets for industrialised countries be differentiated according to national circumstances.

Uniform target proposals based on a 1990 base year would impose a disproportionate burden on Australia. The cost to our economy of meeting a uniform target of the order proposed by the European Union would impose a cost on all Australians that other countries would not accept.

Some industries fundamental to the health of our economy would be hardest hit. The non-ferrous metals, iron and steel and coal industries would be seriously affected, and future investment and employment growth would be jeopardised.

Even stabilising our emissions at 1990 levels would put at risk \$68 billion of energy intensive projects and the tens of thousands of potential jobs that go with them.

Significant regional dislocation would result in places like the Illawarra and Hunter Valley in New South Wales, the Bowen Basin and Gladstone in Queensland, Geelong and the La Trobe Valley in Victoria, Port Pirie in South Australia and the Kwinana region of Western Australia.

Moreover, the European Community is not asking its own members to reach a uniform target. Portugal for example, would be permitted to increase its emissions by almost 40 per cent.

We reject this approach of punishing Australian industries to carry a burden that other countries are not prepared to accept. It is far more sensible and responsible to improve the performance of existing industries and build new green industries to provide for both jobs and the environment.

We believe the way forward is for all countries to play a fair part, with flexibility in the methods used to reach the targets.

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We strongly support a comprehensive approach to setting targets which covers all greenhouse gases, emission sources, sinks and sectors. The wider the coverage the greater the flexibility to maximise environmental benefit and minimise economic cost.

Australia also believes that an international emissions trading regime would help minimise costs of reducing emissions. We would support emissions trading on the basis of a satisfactory initial allocation of emission entitlements and a practical resolution of the administrative difficulties involved.

Joint implementation measures whereby developed countries can work with developing countries on emission reduction projects can achieve worthwhile outcomes. Australia is looking to Kyoto to support joint implementation as a means of engaging developing countries in the global effort.

All along we have argued that climate change is a global problem and all countries should contribute to the solution. Action by developed countries alone will be ineffective. Over time, developing countries must become involved - as by early next century they will account for over 50 per cent of global emissions.

The Kyoto outcome should provide for procedures and timeframes for negotiating targets by major developing country emitters.

Australia's proposal for negotiated, differentiated targets is the best basis for a fair outcome which has a prospect of actually being put into practice and improving the world's environment. It is also the best basis for encouraging developing countries to take on commitments to reduce emissions.

The Government has said it would not agree to legally binding targets until their nature and content and implications for Australia are clear. We will not agree to any targets that impose substantial costs on Australia that are not faced by other OECD countries.

CONCLUSION

With the package of measures I have announced today, the Government is not posturing for negotiating purposes with theoretical targets but is already taking practical steps to reduce Australia's greenhouse gas emissions.

It is a package that goes well beyond what any previous government has sought to do. It is a package that puts Australia at the forefront of international action. And it is a package that Australia will implement even if the international community fails to reach agreement at Kyoto.

As I have demonstrated to date, my Government will continue to stand up for our national interest, jobs and economy in the international negotiations.

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We will not agree to an outcome that burdens us in an unfair manner.

My Government has had some success in our efforts to argue the case that an effective result at Kyoto will require an equitable approach. We have managed to shift the international debate. As a result of our efforts, there is greater recognition of the need to take into account individual national circumstances if there is to be a successful outcome - as the British Prime Minister, Mr Blair, acknowledged in our recent discussions.

There is also greater recognition of the need for flexibility to ensure countries can make a contribution to the global effort - as President Clinton acknowledged in my meeting with him in June.

At the South Pacific Forum and most recently at CHOGM we were successful in gaining acceptance of the need for global engagement by both developed and developing countries.

Nevertheless, let there be no doubt the Kyoto negotiations will be difficult.

Australia's Environment Minister, Senator Robert Hill, who will be leading our delegation at Kyoto, will be doing his utmost to secure an agreement that will both be fair to Australia and be effective in reducing global emissions.

Ultimately, the success of our domestic measures depends upon the goodwill, commitment and action by ordinary Australians, consumers, families, firms and industry groups, as well as Governments Federal, State, and local. The greenhouse challenge is theirs and quality of life of our children depends upon their strength of purpose.

Mr Speaker, I present a copy of my statement and an appendix which provides further details of the measures I have announced today.

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APPENDIX

COMMONWEALTH GREENHOUSE MEASURES

Residential

\$
million

Cities for Climate Protection The Cities for Climate Protection is a voluntary scheme through which local governments quantify their emissions, then develop and implement action plans to reduce them, particularly through community partnerships. It is based on the International Cities for Climate Protection Campaign programme developed by the International Council of Local Environment Initiatives.	13.0
Household Greenhouse Action Household greenhouse action will bring together the various spheres of government, key industries and professional organisations in broadly based partnerships to develop integrated, consistent and effective strategies to address residential greenhouse emissions. Demonstration projects and the development of best practice guides will be undertaken to promote energy efficiency services and products as a key concern in housing design, redevelopment and use. Energy efficiency rating schemes will be integrated into relevant approval processes for new homes and major renovations.	2.2

Industry

\$
million

Extension and Expansion of the Greenhouse Challenge Office – Government/Industry Co-operative Agreements Programme This programme will be expanded to involve more large and medium companies and to include small businesses through an innovative Greenhouse Allies programme. The objective of the programme is to reduce the greenhouse gases emitted by industry enterprises. The programme involves enterprises identifying the scope to reduce emissions, putting into place action plans to achieve this outcome and monitoring and reporting on performance. It will expand to 500 the number of large and medium size companies to join the programme by 2000, and to more than 1,000 by 2005.	27.1
Energy Performance Codes and Standards for Domestic Appliances and Industrial Equipment The measure will reduce greenhouse gas emissions by improving the energy efficiency of appliances and equipment. The programme enhances and extends existing energy efficiency programmes. It involves the development of minimum energy performance standards for new appliances and equipment, regulating or developing codes of practice to ensure their adoption and, where appropriate, labelling or rating appliances and equipment to help consumers in their selection.	4.4

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Energy Performance Codes and Standards for Housing and Commercial Buildings The measure involves expansion of the Nationwide House Energy Rating Scheme (NatHERS) by including a minimum energy performance requirement for new housing and extensions to improve energy efficiency and reduce greenhouse gas emissions. The Commonwealth will work with the States, Territories and key industry stakeholders to develop voluntary minimum energy performance standards for new and substantially refurbished commercial buildings on the basis of energy efficiency benchmarks. If after twelve months the government assesses that the voluntary approach is not achieving acceptable progress towards higher standards of energy efficiency for housing and commercial buildings, we will work with the States and industry to implement mandatory standards through amendment of the Building Code of Australia.	4.4
Industry Efficiency Benchmarking and Best Practice The measure involves industry associations and government working together to identify types, extent and patterns of energy use within sectors, the improvement potential of enterprises within that sector based on best practice and working on strategies to implement best practice and to monitor progress. The benchmarks and best practice indicators will be provided for use by the Greenhouse Challenge programme to assist in formulating cooperative agreements.	10.3

Transport\$
million

Environmental Strategy for Automotive Industry This strategy aims to significantly enhance the environmental performance of the automotive industry through a range of measures including: mandatory fuel efficiency labelling through Australian design rules; bringing forward the phase out of leaded fuel, taking equity considerations into account; progressive tightening of noxious emissions standards with a view to harmonisation with international standards by 2006; negotiations with the automotive industry and companies to secure a 15 per cent fuel efficiency improvement target by 2010 over business as usual (recognising that the scope for model and design change will increase progressively from 2003) within the National Average Fuel Consumption framework; and the development of options for challenging but realistic fuel efficiency targets for the Commonwealth car fleet from 2003.	0.5
Light Commercial Vehicles – Compressed Natural Gas (CNG) Infrastructure This will facilitate a switch to the use of natural gas in light commercial vehicles through the establishment of a distribution network of service stations in collaboration with natural gas companies and local government authorities. The programme aims to establish a minimum refuelling network, firstly in Sydney and Melbourne, with possible extension to other major urban centres.	3.8
Ethanol Pilot Plant (funding previously announced) An ethanol pilot plant will be built to demonstrate new Australian technologies for the production of ethanol from wood fibres and simultaneous waste treatment. It is anticipated that the ethanol pilot plant will realise substantial net greenhouse gas reduction, urban air quality and economic benefits greater than all existing fuel ethanol production technologies.	2.0

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Energy**\$
million**

Accelerating Energy Market Reform The objective is to lower the rate of growth of emissions by improving the economic efficiency of energy supply. The measure will expand energy market reforms to extend electricity reform, deliver integrated and compatible national frameworks for gas and electricity by 2002, and with the States develop the means to identify greenhouse intensity of energy sources in energy market trading pools by 2001.	5.6
Efficiency Standards for Power Generation The Commonwealth will work with the States to achieve movement towards best practice in the efficiency of electricity generation conversion by implementing efficiency standards for different fossil fuel classes, so as to deliver reductions in the greenhouse gas intensity of energy supply. Standards will apply to new electricity generation projects, significant refurbishments and existing generation.	4.1
Mandatory Targets for the Uptake of Renewable Energy in Power Supplies Targets will be set for the inclusion of renewable energy in electricity generation by the year 2010. Electricity retailers and other large electricity buyers will be legally required to source an additional 2% of their electricity from renewable or specified waste-product energy sources by 2010 (including through direct investment in alternative renewable energy sources such as solar water heaters). This will accelerate the uptake of renewable energy in grid-based power applications, and provide an ongoing base for commercially competitive renewable energy. The programme will also contribute to the development of internationally competitive industries which could participate effectively in the burgeoning Asian energy market.	3.8

Renewables**\$
million**

Renewable Energy Innovation Investment Fund (REIIF) The REIIF will provide funding specifically for the facilitation of commercialisation and application of renewable energy technologies. All initial investments will be required to be in the early stages of company development. Government funding will be provided through licences to REIIF fund managers on a competitive basis and invested along with private sector funding on a 2:1 basis.	21.0
Renewable Energy Technology Commercialisation Loans and Grants The competitive loans and grants programme will provide support for, and promotion of, strategically important renewable energy initiatives that have strong commercial potential. This will be integrated with the existing Renewable Energy Industry Programme.	29.6
Renewable Energy Showcase A few leading edge "showcase" projects will be selected via competitive tender for seed funding and/or promotion. These could include projects which are close to becoming commercial, such as tidal power projects; solar thermal projects and a central photovoltaic generating project in a technology park.	10.5
Renewable Energy Technology Internet Site Funding for the development of a sophisticated and up-to-date Internet site on renewable technologies along the lines of that operated by the US Department of Energy to provide information on technologies, examples of their application and available government assistance.	0.3

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International\$
million**Activities Implemented Jointly**

Additional funding for the AIJ Office, to facilitate commercial projects in developing countries and help meet the additional transaction costs incurred by business in undertaking a AIJ project. This will provide Australian industry with a greater incentive to undertake such projects.

6.0

Revegetation, Plantations and Land Use\$
million**Plantations – 2020 vision**

The objective of the programme is to implement key Commonwealth responsibilities of the Plantations 2020 Visions which aims to treble Australia's plantation estate by 2020 and thereby increase carbon sequestration. In collaboration with State governments and industry, the programme involves removing impediments to Australian commercial plantations and supporting plantation establishment and enhancing investment in plantation-based industries.

1.9

Bush for Greenhouse

The uptake of carbon dioxide in trees and vegetation offers significant potential to reduce the overall level of Australia's greenhouse gas emissions. This initiative will facilitate corporate funding of Natural Heritage Trust revegetation projects through Bushcare. Companies or investors will obtain recognition for the stored carbon reservoir created. By allowing companies to invest in revegetation activities, companies will have a method to offset emissions created by their activities elsewhere. Projects selected would have significant carbon sink potential and would meet the range of other Bushcare objectives.

5.5

National Carbon Accounting System for Land Based Sources and Sinks

This measure will establish a national carbon accounting system through the Bureau of Resource Sciences (BRS) and Environment Australia (EA) to be managed by a high level steering committee including key stakeholders. A consolidated package will provide the comprehensive framework and scientific services necessary to account for Australia's emission reduction and sink enhancement programmes to an internationally credible standard. Data on Australia's carbon stocks will be verified by satellite monitoring and audited by on-ground sampling procedures. This form of carbon accounting, which has been adopted by the IPCC, will enable Australia to benefit from the full 'carbon value' of its sink development initiatives such as Plantations 2020 vision and Bush for Greenhouse.

12.5

Reducing Methane Emissions from Livestock

This measure will provide funding to promote a CSIRO developed vaccine which inhibits the production of methane in the rumen of livestock.

1.0

Government Operations\$
million**Energy Efficiency Improvement in Commonwealth Operations**

The objective of this measure is to reduce the energy consumption and greenhouse gas emissions of Commonwealth operations and, by so doing, lead the community by example. The programme involves setting mandatory targets, use of performance contracting, monitoring and reporting on performance, the development of minimum energy performance standards for new and refurbished buildings, appliances and equipment and a requirement for utilisation of solar and other renewable energy technologies where relevant and cost effective.

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Institutional Arrangements

\$
million

Establishment of the Commonwealth Greenhouse Office Implementation of greenhouse response measures is fragmented across a number of agencies and there is a lack of coordination in delivery. A 'Commonwealth Greenhouse Office' will be created within the Department of the Environment, which will be responsible for coordination of domestic climate change policy and delivery of greenhouse response programmes. The office will be the lead Commonwealth agency on greenhouse matters.	0
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Other Measures

\$
million

Funding for other National Greenhouse Strategy related Commonwealth measures Details to be finalised in consultation with the States and Territories.	10.5
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TOTAL (Total does not add due to rounding)	179.9
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107-2215-2145

To: Todd Stern
x6-2215

From: David Sandalan

Materials received yesterday from Japanese, attached

9 pages, incl. cover

Key points to be addressed to resolve problems with EU Bubble

(Fairness / equity)

- (i) The average reduction rate for all countries in a bubble shall be by 5-10% deeper than those of other Annex I countries.

(Accountability / legal responsibility)

- (ii) The target for each country inside a bubble shall also be legally binding.
- (iii) An agreement of burden sharing inside a bubble shall be subject to the acceptance of Meeting of the Parties (MOP) .
The amendment of an agreement, inter alia that for the enlargement of a bubble shall also be subject to its acceptance

(Example for Developing Countries)

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17 11 1997 21

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Why don't the EU countries each make a commitment and then trade?

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2. Yen loan with the most favorable conditionality

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- dispatch of survey mission
- information networking
- development and dissemination of appropriate technology in developing countries
- workshop

An idea on a formula

[Background]

1. HFCs and PFCs are solutions to ozone layer protection

- (1) HFCs and PFCs are alternative substances that are forced to start to serve since CFCs and HCFCs have been designated as ozone layer depleting substances and being phased out in accordance with obligations under the Montreal Protocol.

It should be noted that HFCs and PFCs are recommended alternative substances in the report assessed by UNEP Technology and Economic Assessment Panel under the Montreal Protocol and IPCC Guidelines.

- (2) In the case future use of HFCs and PFCs is limited unfairly and inadequately, the development of ozone layer protection policy would be adversely affected.

Especially early phase out of HCFCs would be discouraged as production and consumption of HCFCs is allowed by 2020.

[Need for Consideration]

2. Special character of HFCs and PFCs as alternatives to CFCs and HCFCs

- (1) In the base year, 1990, emissions of HFCs and PFCs from their main use sectors amount to either very limited level or zero(0), when replacement from CFCs and HCFCs is scarcely found under regulation schedule(*).

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HCFC: start regulation from 1996, phase out by 2020

In light of special character of HFCs and PFCs that are forced to start to serve as alternative substances to CFCs and HCFCs, it is a really relevant perception that amount of emissions of CFCs and HCFCs should be taken into consideration in identifying the base level of actual emissions of HFCs and PFCs.

- (2) In the course of this consideration, the fact of existence of replacement by other non-HFC, PFCs alternatives in some area and difference of GWP between CFCs, HCFCs and HFCs, PFCs should be reflected.

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$$= \text{HCFCs consumption in 1989} + \text{CFCs consumption in 1989} \times [0.031]$$

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Base level of HFCs, PFCs and SF6

$$= \text{HFCs, PFCs and SF6 actual emissions in 1990}$$

$$+ \text{CFC and HCFC actual emissions in 1990} \times [p]$$

- Under a formula some proportions of actual emissions of CFCs and HCFCs in 1990 are incorporated into the base level of HFCs, PFCs and SF6.

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- Under [p], the scope of sectors where HFCs and PFCs are alternatives to CFCs and HCFCs and the difference of GWP between CFCs, HCFCs, HFCs and PFCs are to be considered.

NON PAPER

GAS COVERAGE

[Basic position]

1 Since the quantified targets will be legally binding, emissions should be measured with high accuracy and international agreement on reasonable and fair measurement methods is required. As for HFCs, PFCs and SF6, there remain some issues to be further studied and decided. We proposed these gases should be covered not at the COP3 but be covered by the year 2000 after reaching a conclusion on the following three points.

(1) We should determine methodology for estimating emissions of these gases ;actual emission estimate or potential emission estimate.

(2) We should determine guidelines to develop detailed method of estimating emissions of these gases and national statistics to implement accurate estimate.

(3) We should determine a mechanism to adjust the base level of these gases to take into account the special character of these gases.

- HFCs and PFCs are forced to serve as alternatives to CFCs and HCFCs, since the Montreal Protocol imposes strict limitation on the use of these gases.
- In 1990 emissions of these gases were very limited, since the shift from CFC and HCFC occurred mainly after 1990.
- An adjustment is needed to reflect this special character, for example, by adjusting the base level.

[Conditions]

2 HFC, PFC and SF6 could be included in emission reduction or limitation target at the COP3 only when the following conditions are secured.

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(2) In order to develop detailed method for accurate estimate, experts should start further study to establish guidelines for this purpose. And guidelines should be determined at the COP4.

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'97 NOV 24 PM2:45

To: Todd Stern
x6-2215

From: David Sandalan

Materials received yesterday from Japanese, attached

9 pages, incl. cover

Key points to be addressed to resolve problems with EU Bubble

(Fairness / equity)

- (i) The average reduction rate for all countries in a bubble shall be by 5-10% deeper than those of other Annex I countries.

(Accountability / legal responsibility)

- (ii) The target for each country inside a bubble shall also be legally binding.
- (iii) An agreement of burden sharing inside a bubble shall be subject to the acceptance of Meeting of the Parties (MOP) .
The amendment of an agreement, inter alia that for the enlargement of a bubble shall also be subject to its acceptance

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Washington D.C. 20036

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Mr. Abraham Haspel, US Department of Energy, Fax: (202) 586 3047	
Ms. Linda Silverman, US Department of Energy, Fax: (202) 586 4341	
Mr. David Gardiner, Environmental Protection Agency, Fax: (202) 260 0275	
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	FAX: (202) 797 3209
	TEL: (202) 797 3015
DATE: 20 November, 1997	PAGES: 18
SUBJECT: CLIMATE CHANGE	

Please find attached a copy of the Australian Prime Minister's Statement on Climate Change.

Stephen Deady
Minister/Counsellor (Commercial)

**CLIMATE CHANGE
ANNOUNCEMENT OF PACKAGE OF MEASURES
BY THE PRIME MINISTER**

Following is a the text of the Australian Prime Minister's Statement on Climate Change delivered in the Parliament on 20 November 1997.

The Statement contains a strengthened package of domestic greenhouse measures. The package contains two key components:

- . provides \$180 million over 5 years, mostly directed at new programs or substantially expanded existing programs
- . includes regulations - covering strengthened building codes and appliance standards, targets for increased use of renewable energy and new fuel efficiency standards.

This package shows that the Australian Government is very serious about dealing effectively with this long term global challenge. The package will result in a substantial reduction in Australia's projected emissions growth (one-third off business as usual emissions). Also the Government will be moving to implement these measures immediately, independent of action by other countries and the outcomes of the Kyoto meeting. With these measures, Australia's overall effort is broadly comparable with what the EU and the US propose to achieve.

On the international negotiation issues, the PM's Statement reiterates that Australia believes that the international response to climate change must be effective in terms of meeting the environmental challenge, equitable in terms of the costs to be borne by individual countries and least damaging as possible to living standards and employment prospects. For these reasons Australia has proposed that individual targets for industrialised countries be differentiated according to national circumstances.

Australia also believes international emission trading would help minimise the costs of reducing emissions and supports trading on the basis of a satisfactory initial allocation of emission entitlements and a practical resolution of the administrative difficulties involved.

Australia looks to Kyoto to support joint implementation as a means of engaging developing countries in the global effort. Furthermore, because action by developed countries alone would be ineffective in tackling this global problem, the Kyoto outcome should provide for procedures and time frames for future commitments for major developing country emitters.

20/11 '97 THU 11:57 FAX +61 6 271 5332

PM & C INT

002

**STATEMENT BY
THE PRIME MINISTER OF AUSTRALIA**

THE HON JOHN HOWARD MP

**SAFEGUARDING THE FUTURE:
AUSTRALIA'S RESPONSE TO CLIMATE CHANGE**

20 NOVEMBER 1997

20/11 '97 THU 11:58 FAX +61 6 271 5332

PM & C INT

003

Since its election the Government has addressed the critical issue of global warming in a way that effectively promotes Australia's national interests.

Those interests lie both in protecting Australian jobs and Australian industry whilst ensuring that Australia plays her part in the world wide effort needed to reduce greenhouse gas emissions.

From the start, we have made it plain that Australia would not accept an unfair share of the burden. We have rejected and will continue to reject mandatory uniform targets which advantage many developed countries to the distinct disadvantage of countries such as Australia.

We have also made it plain that we are not prepared to see Australian jobs sacrificed and efficient Australian industries, particularly in the resources sector, robbed of their hard-earned, competitive advantage.

Moreover, we have persistently stressed the need to involve developing countries as their participation is crucial to any lasting solution to the global warming problem.

These principles have guided our approach.

There is now clear evidence that Australia's campaign for equity and realism has won wider support and so, far from our country being isolated on the issue, there is growing international support for the view that the approach of, say, the European Union is both unfair and unachievable.

We have an obligation to defend and protect Australian interests, Australian jobs and Australian industry. We also owe it to future generations of Australians to play an effective role in the global reduction of greenhouse gas emissions.

The Government's approach to development and the environment has been balanced and far sighted.

That approach is reflected in the \$1.25 billion Natural Heritage Trust. The Trust promotes practical ways to rejuvenate the land, rivers and oceans and is the most profound commitment of any government to the environment.

The same balanced approach is behind our Regional Forests Agreements where the practical commitment to equally boost jobs and protect forests has resulted in 409,000 hectares of additional reserves through the two agreements signed so far.

That balance is also reflected in the protection and management of our seas and oceans through the development of a national oceans policy. This will build on the \$106 million already provided through the Natural Heritage Trust for restoring the ocean environment.

This same consistent balanced and far-sighted approach has been applied to the greenhouse gas challenge.

20/11 '97 THU 11:58 FAX +61 6 271 5332

PM & C INT

004

Today I announce the largest and most far-reaching package of measures to address climate change ever undertaken by any government in Australia.

The package carefully preserves a unique environment and lifestyle for our children's sake, defends wealth creating efficient industries and promotes lasting employment into the future. It provides a durable framework to promote Australia's national interest towards the year 2010 and beyond.

In a comprehensive manner, it replaces and far exceeds the random, disjointed projects of the previous government.

The world's climate scientists have provided us with a clear message - that the balance of evidence suggests humans are having a discernible influence on global climate.

What is required is sober, sensible but forward-looking action to reduce greenhouse gases and this is the approach my Government will adopt.

Although Australia contributes only 1.4 per cent of the world's greenhouse gas emissions we want to play our part in meeting this challenge. But pulling our weight doesn't mean carrying more than our share of the burden. Only with all countries working together, carrying equitable burdens, can we achieve an effective global outcome.

This will require creativity, persistence and in some instances, sacrifices - but the benefits of preserving our environment and quality of life for the sake of our children are too important to forgo.

PLAYING OUR PART - NEW DOMESTIC GREENHOUSE MEASURES

For various reasons Australia is unique.

Our economy has evolved on the basis of our abundant supply of natural resources and efficient production and processing of fossil fuels and mineral resources. Fossil fuels currently provide 94 per cent of our energy needs - far more than other OECD countries.

Our population is expected to grow by 30 per cent from 1990 to 2020 compared to less than three per cent in Europe.

We will continue to experience stronger economic and employment growth than most OECD countries.

Our cities are decentralised and widely separated, resulting in high transport use per capita compared to the smaller, closely populated European Union countries.

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PM & C INT

005

Our trade profile means that about 20 per cent of our greenhouse gas emissions are embodied in our exports (notably aluminium and agricultural products) - double the OECD average and the highest in the industrialised world.

Our emissions profile is also unique amongst developed countries where the energy sector accounts for about half of our emissions, compared with an average of 80 per cent for OECD countries; and where land use and forestry account for around 20 per cent of Australia's emissions. This reflects the significance of agriculture to our economy.

In addition, Australia has a responsibility to export the resources necessary to fuel the growth of her regional partners and to provide the food required for their people.

For all of these reasons our emissions are projected to grow faster than other countries. Uniform target proposals that do not take these circumstances into account will place an unfair penalty on Australia.

Reducing emissions growth is therefore particularly challenging and is more costly for us than for most other industrial countries. But we are still committed to playing our part in cutting emissions.

Without further action, Australia's emissions are expected to grow by around 28 per cent from 1990 to 2010. This is based on a comprehensive approach excluding land use change. Emissions from the energy sector alone are expected to grow by around 40 per cent.

The package I announce today will achieve a dramatic reduction of a third in our expected net emissions growth from 1990 to 2010.

These measures will reduce our net emissions growth from 28 to 18 per cent in that period, or some 39 million tonnes of emissions. This is comparable to the emissions from all the electricity used by households right across Australia.

This is a realistic, even conservative, calculation of the emission benefits. The benefits from plantations and land use changes, for example, could well be greater than we have estimated. With the most effective implementation of the package, the full support of industry and the community, and the best contribution of the States and Territories we may well achieve even greater reductions.

Taken with greenhouse measures Australia already has in place the package will mean Australia's effort broadly compares on the same basis to what the United States and the European Union are proposing. Moreover, we are not waiting for others to act.

None of us should underestimate the commitment required to achieve these outcomes. They will require hard work from all of us. The package gives the lie to those who make exaggerated but ultimately empty claims that fine sounding targets can easily be achieved.

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PM & C INT

006

The measures have been developed against the background of our national circumstances and our national interest. They also have been developed against achievements by Australia to date such as reform of our electricity and gas markets, halving the amount of waste going into landfill by the year 2000 compared to 1990 levels and the efforts of particular industries such as the aluminium industry which will reduce emissions by more than 20 per cent over the same period.

The Government is seeking realistic, cost effective reductions in key sectors where emissions are high or growing strongly while also fairly spreading the burden of action across our economy.

The package will allow us to improve the performance of our highly competitive energy dependent sectors while also stimulating new sectors such as renewable energy. It will demonstrate we can improve the environment whilst generating new jobs and exports. Far from risking 90,000 potential jobs, as would be the case if we accepted some proposals, the measures I announce have the potential to create wealth and jobs.

They address emissions across many sectors - residential, industry, transport, energy, agriculture, forestry and government operations - in an integrated, effective, and above all, fair way.

We are prepared to ask industry to do more than they may otherwise be prepared to do, that is, to go beyond a 'no regrets', minimal cost approach where this is sensible in order to achieve effective and meaningful outcomes.

The Government is providing \$180 million over five years for these measures. This is a significant sum by any standards and a substantial increase in funding. This package far exceeds the efforts by previous governments on addressing the greenhouse problem.

Most of this expenditure will be spent on completely new measures, while some existing programs will be substantially expanded.

Importantly, the level of Commonwealth expenditure does not represent the whole story. These initiatives will stimulate additional actions and investment by the States and Territories, industry, and in some cases, consumers.

Our measures build on those in the draft National Greenhouse Strategy. State and Territory leaders have indicated their support for our greenhouse response and have agreed to work with us co-operatively in implementing it and in considering further action of their own.

Let me outline the specific measures.

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Renewable Energy

Renewable forms of energy currently contribute about six per cent to Australia's total energy needs, an amount comparable to the OECD average of 6.4 per cent. The Government will be committing \$65 million to ensure this level is increased.

By contributing \$21 million, we will create a specialist renewable energy innovation investment fund to provide government and private sector venture capital for companies with high growth potential.

So that we can capitalise on our skills we will provide a \$30 million loans and grants programme for the development and commercialisation of the renewable energy industry. This will directly support the creation of new businesses, jobs and exports. This funding represents a huge increase on the \$4.8 million over four years spent by the previous government on the Renewable Energy Industry Programme.

And we will also provide \$10 million for some leading edge renewable energy 'showcase' projects in areas such as tidal power solar thermal power and photovoltaic technologies.

The Government will work with the States and Territories to set a mandatory target for electricity retailers to source an additional two per cent of their electricity from renewable energy sources by 2010. This will accelerate the uptake of renewable energy in grid-based electricity and provide a larger base for the development of commercially competitive renewable energy.

This enormous boost to renewable energy development is a huge improvement on programmes such as the Energy Research and Development Corporation which had been overtaken by changes in the energy sector.

Our new programmes will stimulate innovative technologies and wealth-creating businesses and energy suppliers who provide power to communities, employ Australians and export to the world. It is an action-oriented approach.

Energy Market Reform

The possibilities for fuel substitution and innovation will be enhanced as we continue and accelerate the process of energy market reform.

We will work with the States and industry to develop and implement by the year 2000, efficiency standards for fossil fuel electricity generation, including for brown and black coal and gas fired plants.

This will ensure the adoption of best practice new technology in each fossil fuel class. Standards will also be phased in to encourage emissions reductions in existing plants. The standards will apply to new electricity generation projects and existing generation.

These initiatives mean that Australian energy suppliers will be able to stand tall when it comes to being clean, green and cost competitive.

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Automotive Industry

In 1995, ten per cent of Australia's net emissions were generated by cars, four wheel drives and light commercial vehicles.

We will implement an Automotive Industry Environmental Strategy, in consultation with the automotive and oil industries and other stakeholders, to enhance the industry's environmental performance.

This strategy will involve several elements including:

- mandatory, model specific, fuel efficiency labelling;
- harmonised noxious emissions standards with international standards by 2006;
- a 15 per cent fuel efficiency improvement target by 2010 over business as usual through negotiation with automotive companies; and
- bringing forward the phase-out of leaded petrol, taking equity considerations into account.

The Government will also develop a basic network of compressed natural gas refuelling stations in selected metropolitan areas to encourage light commercial vehicles to switch to this more environmentally friendly fuel.

These measures will reduce air pollution and improve the health of our cities as well as reducing greenhouse gas emissions.

Codes and Standards

The Government will also work with the States, Territories and industry to develop energy efficiency codes and standards for housing and commercial buildings, appliances and equipment

For industrial and commercial appliances and equipment we will implement an improved labelling programme and minimum energy performance standards.

We will expand the Nationwide House Energy Rating Scheme by including a minimum energy performance requirement for new houses and major extensions and we will work with the States, Territories and industry to develop voluntary minimum energy performance standards for new and substantially refurbished commercial buildings.

These initiatives will take us to best practice standards in these important areas. If this voluntary approach does not achieve acceptable progress within 12 months, we will work to implement mandatory standards.

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Tree Planting and Revegetation

Plantations and revegetation are important means of soaking up greenhouse emissions - known as greenhouse sinks.

The Government will work to remove impediments to the development of commercial plantations to achieve the Plantations 2020 vision of trebling the plantation estate by 2020. We will establish a Bush for Greenhouse Programme to encourage corporate funding of revegetation projects to act as sinks.

This will build on the \$22 million for farm forestry and the massive \$328 million revegetation programme being undertaken under the Bushcare Initiative of the Natural Heritage Trust, which represents the largest revegetation effort ever undertaken with almost a tenfold increase on the funding of revegetation programmes of the previous Government.

Greenhouse Challenge programme

The Greenhouse Challenge programme is central to the partnership between government and industry to reduce emissions.

This programme currently has 100 signed agreements with businesses from a wide range of sectors.

In total, companies that have signed agreements account for over 45 per cent of Australia's industrial emissions.

Participants have committed themselves to reduce their forecast growth in emissions by about 22 million tonnes of carbon dioxide equivalent by the year 2000.

The announcement today provides extra funding of \$27 million to extend the programme to smaller companies and to increase the number of large and medium company participants to 500 by the year 2000 and to more than 1000 companies by 2005.

Commonwealth Greenhouse Office

In order to ensure this package of measures is delivered a Commonwealth Greenhouse Office will be established within the Department of the Environment. This Office will have responsibility for the coordination of domestic climate change policy.

The Office will be the lead Commonwealth agency on greenhouse matters. It will provide a mechanism to ensure domestic greenhouse matters receive the priority the issue deserves and the Government intends.

Other Measures

Further measures as part of this statement include action to reduce emissions in urban areas, initiatives to work toward best energy practice in targeted industries, funding

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towards a ethanol pilot plant, the development of a national carbon accounting system, funding to support various National Greenhouse Strategy related measures, and additional funding to ensure commercial joint implementation projects in developing countries.

We are also committed to reducing emissions from the Commonwealth Government's own operations, including purchases of more energy efficient equipment and appliances. We will be setting fuel consumption targets for the Commonwealth vehicle fleet.

AUSTRALIA'S APPROACH: FORWARD LOOKING AND GLOBAL

The Government believes that like our national effort, the international response to climate change must be effective in terms of meeting the environmental challenge, equitable in terms of the costs to be borne by individual countries and least damaging as possible to the living standards and employment prospects of our people.

For these reasons Australia has proposed that individual targets for industrialised countries be differentiated according to national circumstances.

Uniform target proposals based on a 1990 base year would impose a disproportionate burden on Australia. The cost to our economy of meeting a uniform target of the order proposed by the European Union would impose a cost on all Australians that other countries would not accept.

Some industries fundamental to the health of our economy would be hardest hit. The non-ferrous metals, iron and steel and coal industries would be seriously affected, and future investment and employment growth would be jeopardised.

Even stabilising our emissions at 1990 levels would put at risk \$68 billion of energy intensive projects and the tens of thousands of potential jobs that go with them.

Significant regional dislocation would result in places like the Illawarra and Hunter Valley in New South Wales, the Bowen Basin and Gladstone in Queensland, Geelong and the La Trobe Valley in Victoria, Port Pirie in South Australia and the Kwinana region of Western Australia.

Moreover, the European Community is not asking its own members to reach a uniform target. Portugal for example, would be permitted to increase its emissions by almost 40 per cent.

We reject this approach of punishing Australian industries to carry a burden that other countries are not prepared to accept. It is far more sensible and responsible to improve the performance of existing industries and build new green industries to provide for both jobs and the environment.

We believe the way forward is for all countries to play a fair part, with flexibility in the methods used to reach the targets.

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We strongly support a comprehensive approach to setting targets which covers all greenhouse gases, emission sources, sinks and sectors. The wider the coverage the greater the flexibility to maximise environmental benefit and minimise economic cost.

Australia also believes that an international emissions trading regime would help minimise costs of reducing emissions. We would support emissions trading on the basis of a satisfactory initial allocation of emission entitlements and a practical resolution of the administrative difficulties involved.

Joint implementation measures whereby developed countries can work with developing countries on emission reduction projects can achieve worthwhile outcomes. Australia is looking to Kyoto to support joint implementation as a means of engaging developing countries in the global effort.

All along we have argued that climate change is a global problem and all countries should contribute to the solution. Action by developed countries alone will be ineffective. Over time, developing countries must become involved - as by early next century they will account for over 50 per cent of global emissions.

The Kyoto outcome should provide for procedures and timeframes for negotiating targets by major developing country emitters.

Australia's proposal for negotiated, differentiated targets is the best basis for a fair outcome which has a prospect of actually being put into practice and improving the world's environment. It is also the best basis for encouraging developing countries to take on commitments to reduce emissions.

The Government has said it would not agree to legally binding targets until their nature and content and implications for Australia are clear. We will not agree to any targets that impose substantial costs on Australia that are not faced by other OECD countries.

CONCLUSION

With the package of measures I have announced today, the Government is not posturing for negotiating purposes with theoretical targets but is already taking practical steps to reduce Australia's greenhouse gas emissions.

It is a package that goes well beyond what any previous government has sought to do. It is a package that puts Australia at the forefront of international action. And it is a package that Australia will implement even if the international community fails to reach agreement at Kyoto.

As I have demonstrated to date, my Government will continue to stand up for our national interest, jobs and economy in the international negotiations.

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We will not agree to an outcome that burdens us in an unfair manner.

My Government has had some success in our efforts to argue the case that an effective result at Kyoto will require an equitable approach. We have managed to shift the international debate. As a result of our efforts, there is greater recognition of the need to take into account individual national circumstances if there is to be a successful outcome - as the British Prime Minister, Mr Blair, acknowledged in our recent discussions.

There is also greater recognition of the need for flexibility to ensure countries can make a contribution to the global effort - as President Clinton acknowledged in my meeting with him in June.

At the South Pacific Forum and most recently at CHOGM we were successful in gaining acceptance of the need for global engagement by both developed and developing countries.

Nevertheless, let there be no doubt the Kyoto negotiations will be difficult.

Australia's Environment Minister, Senator Robert Hill, who will be leading our delegation at Kyoto, will be doing his utmost to secure an agreement that will both be fair to Australia and be effective in reducing global emissions.

Ultimately, the success of our domestic measures depends upon the goodwill, commitment and action by ordinary Australians, consumers, families, firms and industry groups, as well as Governments Federal, State, and local. The greenhouse challenge is theirs and quality of life of our children depends upon their strength of purpose.

Mr Speaker, I present a copy of my statement and an appendix which provides further details of the measures I have announced today.

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APPENDIX

COMMONWEALTH GREENHOUSE MEASURES

Residential

\$
million

Cities for Climate Protection The Cities for Climate Protection is a voluntary scheme through which local governments quantify their emissions, then develop and implement action plans to reduce them, particularly through community partnerships. It is based on the International Cities for Climate Protection Campaign programme developed by the International Council of Local Environment Initiatives.	13.0
Household Greenhouse Action Household greenhouse action will bring together the various spheres of government, key industries and professional organisations in broadly based partnerships to develop integrated, consistent and effective strategies to address residential greenhouse emissions. Demonstration projects and the development of best practice guides will be undertaken to promote energy efficiency services and products as a key concern in housing design, redevelopment and use. Energy efficiency rating schemes will be integrated into relevant approval processes for new homes and major renovations.	2.2

Industry

\$
million

Extension and Expansion of the Greenhouse Challenge Office – Government/Industry Co-operative Agreements Programme This programme will be expanded to involve more large and medium companies and to include small businesses through an innovative Greenhouse Allies programme. The objective of the programme is to reduce the greenhouse gases emitted by industry enterprises. The programme involves enterprises identifying the scope to reduce emissions, putting into place action plans to achieve this outcome and monitoring and reporting on performance. It will expand to 500 the number of large and medium size companies to join the programme by 2000, and to more than 1,000 by 2005.	27.1
Energy Performance Codes and Standards for Domestic Appliances and Industrial Equipment The measure will reduce greenhouse gas emissions by improving the energy efficiency of appliances and equipment. The programme enhances and extends existing energy efficiency programmes. It involves the development of minimum energy performance standards for new appliances and equipment, regulating or developing codes of practice to ensure their adoption and, where appropriate, labelling or rating appliances and equipment to help consumers in their selection.	4.4

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Energy Performance Codes and Standards for Housing and Commercial Buildings The measure involves expansion of the Nationwide House Energy Rating Scheme (NatHERS) by including a minimum energy performance requirement for new housing and extensions to improve energy efficiency and reduce greenhouse gas emissions. The Commonwealth will work with the States, Territories and key industry stakeholders to develop voluntary minimum energy performance standards for new and substantially refurbished commercial buildings on the basis of energy efficiency benchmarks. If after twelve months the government assesses that the voluntary approach is not achieving acceptable progress towards higher standards of energy efficiency for housing and commercial buildings, we will work with the States and industry to implement mandatory standards through amendment of the Building Code of Australia.	4.4
Industry Efficiency Benchmarking and Best Practice The measure involves industry associations and government working together to identify types, extent and patterns of energy use within sectors, the improvement potential of enterprises within that sector based on best practice and working on strategies to implement best practice and to monitor progress. The benchmarks and best practice indicators will be provided for use by the Greenhouse Challenge programme to assist in formulating cooperative agreements.	10.3

Transport\$
million

Environmental Strategy for Automotive Industry This strategy aims to significantly enhance the environmental performance of the automotive industry through a range of measures including: mandatory fuel efficiency labelling through Australian design rules; bringing forward the phase out of leaded fuel, taking equity considerations into account; progressive tightening of noxious emissions standards with a view to harmonisation with international standards by 2006; negotiations with the automotive industry and companies to secure a 15 per cent fuel efficiency improvement target by 2010 over business as usual (recognising that the scope for model and design change will increase progressively from 2003) within the National Average Fuel Consumption framework; and the development of options for challenging but realistic fuel efficiency targets for the Commonwealth car fleet from 2003.	0.5
Light Commercial Vehicles – Compressed Natural Gas (CNG) Infrastructure This will facilitate a switch to the use of natural gas in light commercial vehicles through the establishment of a distribution network of service stations in collaboration with natural gas companies and local government authorities. The programme aims to establish a minimum refuelling network, firstly in Sydney and Melbourne, with possible extension to other major urban centres.	3.8
Ethanol Pilot Plant (funding previously announced) An ethanol pilot plant will be built to demonstrate new Australian technologies for the production of ethanol from wood fibres and simultaneous waste treatment. It is anticipated that the ethanol pilot plant will realise substantial net greenhouse gas reduction, urban air quality and economic benefits greater than all existing fuel ethanol production technologies.	2.0

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Energy**\$
million**

Accelerating Energy Market Reform The objective is to lower the rate of growth of emissions by improving the economic efficiency of energy supply. The measure will expand energy market reforms to extend electricity reform, deliver integrated and compatible national frameworks for gas and electricity by 2002, and with the States develop the means to identify greenhouse intensity of energy sources in energy market trading pools by 2001.	5.6
Efficiency Standards for Power Generation The Commonwealth will work with the States to achieve movement towards best practice in the efficiency of electricity generation conversion by implementing efficiency standards for different fossil fuel classes, so as to deliver reductions in the greenhouse gas intensity of energy supply. Standards will apply to new electricity generation projects, significant refurbishments and existing generation.	4.1
Mandatory Targets for the Uptake of Renewable Energy in Power Supplies Targets will be set for the inclusion of renewable energy in electricity generation by the year 2010. Electricity retailers and other large electricity buyers will be legally required to source an additional 2% of their electricity from renewable or specified waste-product energy sources by 2010 (including through direct investment in alternative renewable energy sources such as solar water heaters). This will accelerate the uptake of renewable energy in grid-based power applications, and provide an ongoing base for commercially competitive renewable energy. The programme will also contribute to the development of internationally competitive industries which could participate effectively in the burgeoning Asian energy market.	3.8

Renewables**\$
million**

Renewable Energy Innovation Investment Fund (REIIF) The REIIF will provide funding specifically for the facilitation of commercialisation and application of renewable energy technologies. All initial investments will be required to be in the early stages of company development. Government funding will be provided through licences to REIIF fund managers on a competitive basis and invested along with private sector funding on a 2:1 basis.	21.0
Renewable Energy Technology Commercialisation Loans and Grants The competitive loans and grants programme will provide support for, and promotion of, strategically important renewable energy initiatives that have strong commercial potential. This will be integrated with the existing Renewable Energy Industry Programme.	29.6
Renewable Energy Showcase A few leading edge "showcase" projects will be selected via competitive tender for seed funding and/or promotion. These could include projects which are close to becoming commercial, such as tidal power projects; solar thermal projects and a central photovoltaic generating project in a technology park.	10.5
Renewable Energy Technology Internet Site Funding for the development of a sophisticated and up-to-date Internet site on renewable technologies along the lines of that operated by the US Department of Energy to provide information on technologies, examples of their application and available government assistance.	0.3

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International**\$
million**

Activities Implemented Jointly Additional funding for the AIJ Office, to facilitate commercial projects in developing countries and help meet the additional transaction costs incurred by business in undertaking a AIJ project. This will provide Australian industry with a greater incentive to undertake such projects.	6.0
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Revegetation, Plantations and Land Use**\$
million**

Plantations – 2020 vision The objective of the programme is to implement key Commonwealth responsibilities of the Plantations 2020 Visions which aims to treble Australia's plantation estate by 2020 and thereby increase carbon sequestration. In collaboration with State governments and industry, the programme involves removing impediments to Australian commercial plantations and supporting plantation establishment and enhancing investment in plantation-based industries.	1.9
Bush for Greenhouse The uptake of carbon dioxide in trees and vegetation offers significant potential to reduce the overall level of Australia's greenhouse gas emissions. This initiative will facilitate corporate funding of Natural Heritage Trust revegetation projects through Bushcare. Companies or investors will obtain recognition for the stored carbon reservoir created. By allowing companies to invest in revegetation activities, companies will have a method to offset emissions created by their activities elsewhere. Projects selected would have significant carbon sink potential and would meet the range of other Bushcare objectives.	5.5
National Carbon Accounting System for Land Based Sources and Sinks This measure will establish a national carbon accounting system through the Bureau of Resource Sciences (BRS) and Environment Australia (EA) to be managed by a high level steering committee including key stakeholders. A consolidated package will provide the comprehensive framework and scientific services necessary to account for Australia's emission reduction and sink enhancement programmes to an internationally credible standard. Data on Australia's carbon stocks will be verified by satellite monitoring and audited by on-ground sampling procedures. This form of carbon accounting, which has been adopted by the IPCC, will enable Australia to benefit from the full 'carbon value' of its sink development initiatives such as Plantations 2020 vision and Bush for Greenhouse.	12.5
Reducing Methane Emissions from Livestock This measure will provide funding to promote a CSIRO developed vaccine which inhibits the production of methane in the rumen of livestock.	1.0

Government Operations**\$
million**

Energy Efficiency Improvement in Commonwealth Operations The objective of this measure is to reduce the energy consumption and greenhouse gas emissions of Commonwealth operations and, by so doing, lead the community by example. The programme involves setting mandatory targets, use of performance contracting, monitoring and reporting on performance, the development of minimum energy performance standards for new and refurbished buildings, appliances and equipment and a requirement for utilisation of solar and other renewable energy technologies where relevant and cost effective.	0
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Institutional Arrangements\$
million

Establishment of the Commonwealth Greenhouse Office Implementation of greenhouse response measures is fragmented across a number of agencies and there is a lack of coordination in delivery. A 'Commonwealth Greenhouse Office' will be created within the Department of the Environment, which will be responsible for coordination of domestic climate change policy and delivery of greenhouse response programmes. The office will be the lead Commonwealth agency on greenhouse matters.	0
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Other Measures\$
million

Funding for other National Greenhouse Strategy related Commonwealth measures Details to be finalised in consultation with the States and Territories.	10.5
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TOTAL (Total does not add due to rounding)	179.9
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AMBASSADOR TIMOTHY L. TOWELL

DATE: October 14, 1997

TIME: 4:52 PM

97 OCT 14 PM 5:09

TO: The Honorable
Todd Stern

FAX: (202) 456-2215

Assistant to the President and Staff Secretary
The White House

Number of pages including cover sheet: 3

Todd:

Attached is a copy of a letter from the Foreign Minister of Paraguay, Dr. Ruben Melgarejo Lanzoni, to Secretary of State Madeleine Albright giving the Government of Paraguay's support for a pilot project of carbon sequestration in the context of the Joint Implementation program. I have just talked to Mr. Ron Shiflett in Buenos Aires, and he has asked that I fax this document to you. The original is being given by the Paraguayan Embassy in Washington to the Department of State. I am sending them informal copies as well.

Because Paraguay moved so quickly on this important global warming issue at our request, it is important that President Clinton include Paraguay in his comments on global warming in Argentina this week.

*Pls. let me know if
we should do more.
Regards.*



Foreign Policy Group

1333 New Hampshire Avenue, N.W., Suite 700, Washington, DC 20036

Tel: (202) 862-2237 - (202) 338-1989 - Fax: (202) 862-2400

Attn: Amb.
Towell*Ministerio de Relaciones Exteriores*

October 14 1997.

DM N° 591.

The Honorable Madeleine Albright
Secretary of State
United States Department of State
2201 C Street N.W.
Washington, DC 20520

RE: Laguna Tigre Joint Implementation Pilot Project

Dear Secretary Albright:

On June 13, 1992, representatives of the Government of Paraguay joined the leaders of 160 other nations attending the "Earth Summit" in Rio de Janeiro. In signing the Framework Convention on Climate Change.

Our government recognizes that mitigating greenhouse gas emissions to limit their adverse effects on global climate and enhancing environmental protection generally is of mutual benefit to developing and developed countries alike. Knowing that such efforts will require cooperative global solutions and innovative partnerships, the Government of Paraguay supports private voluntary joint implementation projects that seek to reduce or sequester greenhouse gases and promote sustainable development and protect biodiversity in Paraguay.

The purpose of this letter is to express our support for a joint effort by the International Utility Efficiency Partnerships, Inc., the Edison Electric Institute UtiliTree, Inc. Activity, Tucson Electric Power Company, and e prime, an unregulated subsidiary of Public Service of Colorado, to develop a carbon sequestration pilot project within certain land holdings of the Carlos Casado S.A. corporation in Paraguay. The government of Paraguay also supports the formal registration of that pilot project under the United States' initiative on Joint Implementation.

The Paraguayan government is fully committed to protecting its natural resource base and the environment, while providing sustainable economic development opportunities for our people, and believes that the contemplated joint implementation pilot project would be a significant step in this direction. This pilot project would seek to protect a critically endangered forest region

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Ministerio de Relaciones Exteriores

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of our country, and to demonstrate the successful use of sustainable forestry practices. This project will also preserve in perpetuity certain wildlife populations within these project areas. The proposed pilot could, thus, be expected to result in measurable carbon sequestration and also advance the environmental and economic development interests of Paraguay. It is, indeed, our hope that the project would serve as a model to be applied elsewhere within Paraguay and the Southern Cone.

We recognize that the potential for attracting private financial participation in joint implementation measures will be advanced by the recognition of transferable carbon offset credits, and we support the development of such a market-based incentive program. We understand that the proponents of this project seek to establish a regime for allocating carbon offsets generated by the project in order to attract private financial participants. Under such a system offsets would be allocated to the project participants in proportion to their financial contribution to the pilot project, subject to a shareholder agreement to be entered into between all parties. Although there is, as yet, no international system for carbon offsets, the Government of Paraguay commits to working with the project developers and the Government of the United States to establish a pilot carbon offset system that is credible, accountable, efficient and fair. We believe such an approach would help demonstrate a potentially crucial mechanism for realizing, in an economic sense, an extra and heretofore unrecognized value of our forests.

We appreciate the efforts that have been made by the International Utility Efficiency Partnerships, Inc., Mr. Angel Cavanagh of Carlos Casado S.A., and the United States Government to pursue an open, fair and interactive dialogue among all parties - governmental and private. That cooperative approach is essential to building the partnerships necessary to meet successfully the needs of all parties to the Convention, and to pave the way for future joint efforts to address our global environmental, wildlife protection and development problems.

Yours truly,




Rubén Melgarejo Lanzoni
Minister



For Your Information
No Response Expected

John H. Gibbons
Assistant to the President
for
Science and Technology

*Todd - FYI. This is May's
memo to Blair*

The White House
Washington, D.C. 20500

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Actions



Office of Science and Technology

'97 OCT 31 PM 1:46

Climate Change

A note by the UK Chief Scientific Adviser,

Sir Robert May

SEPTEMBER 1997

CLIMATE CHANGE

Note by Sir Robert May FRS

This note sets out my personal view of a subject in which there remain significant uncertainties. The main source of assessment of the science is the UN Intergovernmental Panel on Climate Change (IPCC). This is supported by 150 nations, and the UK chairs its science working group. Its last scientific assessment drew on the work of some 3,000 of the world's leading scientists.

The Greenhouse effect and concerns about it

2. The physical principle of the greenhouse effect is well established. Put simply, the earth's surface temperature depends on the balance between incoming short-wave energy from the sun and outgoing long-wave energy emitted from the earth's surface and atmosphere. Some gases ("greenhouse gases") in the atmosphere allow short-wave solar radiation to pass through and warm the earth's surface, but at the same time these gases trap some of the long-wave infrared radiation emitted by the ground, and keep the earth warmer than it would otherwise be. Were it not for these natural "greenhouse gases", the most important of which is water vapour, the earth would be roughly 30°C colder, and we would not be here.

3. Concern arises because human activities are increasing the concentration of greenhouse gases, particularly carbon dioxide and methane. While these facts are certain, the implications for changes in average temperatures, both global and local, are less certain. The ultimate effects of such temperature change on rainfall and storm patterns - floods and droughts - and on other aspects of our environment are hard to predict in detail, although the broad outlines seem clear. In what follows I expand on these themes, sketch some likely consequences for different parts of Britain and other places, and outline some policy choices.

Facts about greenhouse gases

4. Concentration of carbon dioxide in the atmosphere has increased by about 25% over the past 100 years (Fig 1). If current trends in fossil fuel burning continue, carbon dioxide will be present in the atmosphere at twice pre-industrial levels by around the middle of the next century. Once atmospheric concentrations have been increased they take a long time, characteristically around 100 years, to decrease even if no more carbon dioxide is added. As with turning a large ship, there are long lags between actions aimed at levelling-off carbon dioxide levels, and the levels actually stabilising. This is a strong argument for early action.
5. Other gases, including methane, nitrous oxide and chlorofluorocarbons (CFCs) also contribute to the greenhouse effect. They too have been increasing in the atmosphere. Methane levels have doubled over the last 100 years. Nitrous oxide levels are currently rising at around 0.25% each year. As for carbon dioxide, all these increases are clearly caused by human activities, largely connected with energy generation, transport and agriculture.
6. Carbon dioxide contributes most to human-caused global warming, accounting for around 70% of the total. The other gases contribute the remaining 30%, with methane accounting for about 20%.

Greenhouse gases and global temperature

7. Over the past 130 years, global average temperature has risen about 0.6°C (Fig 1). This may sound trivial. But the temperature difference between today and the extreme of the last ice age, 20,000 years ago, is only about 5°C (although this was a decrease, rather than an increase, in temperature). The estimated range of variability in global temperature over the past 1,000 years is around 1°C.
8. Direct attribution of these temperature changes to human activities is complicated by the fact that climate varies naturally from year to year, and from decade to decade. Long-term human-induced warming has to be distinguished against this natural background. Although we do not have data reaching back many hundreds of years, by comparing observations of global

mean temperatures with natural variability estimated from climate models, we find the warming has, over the past couple of decades, extended beyond the bounds of our estimates of natural variability. This is why the IPCC considered it valid to conclude that the balance of evidence suggests a discernible human influence on global atmosphere.

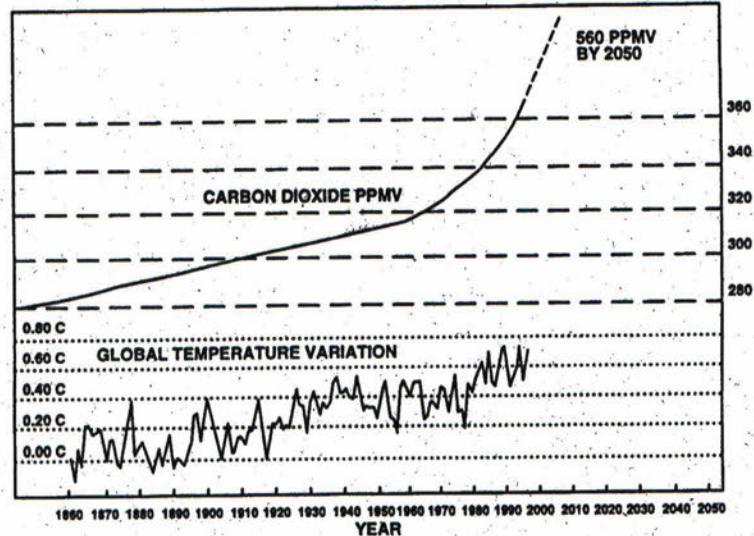


Figure 1

9. In order to predict how increases in atmospheric concentrations of carbon dioxide and other greenhouse gases will affect global temperature and other climate variables in the future, complex mathematical models of the earth's climate system have been developed. There is no dispute that, all other things being equal, a doubling of atmospheric carbon dioxide concentration would, by itself, lead to an increase in average global temperature of around 1.2°C.

10. The difficulty is that other things are not equal. A serious problem is that the models are highly non-linear. A doubled input does not necessarily lead to a doubled output; two and two do not always add up to four. These mathematical arcana are often manifested in feedback effects, which can amplify or ameliorate global warming. Important such feedbacks in global climate models arise from water vapour, cloud cover, ocean circulation, reflection from icecaps, and other things.

11. With a warmer atmosphere, more evaporation occurs from the oceans and from wetland surfaces. On average, a warmer atmosphere will possess a higher water vapour content. Water vapour is a powerful greenhouse gas, so a positive feedback results, amplifying the warming effects.

12. The effect of cloud cover seems to be very variable, depending on local conditions and on the kind of cloud. Clouds reflect some solar radiation back to space, so reducing the global warming effect. However, they counter this by acting as a blanket for thermal radiation from the earth's surface, thus increasing average temperatures. Which of the two effects dominates depends on cloud temperature, height and optical properties (whether it is ice or water, thick or thin). In general, low clouds cool global climate, whereas high clouds tend to increase temperature. Feedback can therefore be positive or negative, making the modelling difficult, with the effects varying from place to place.

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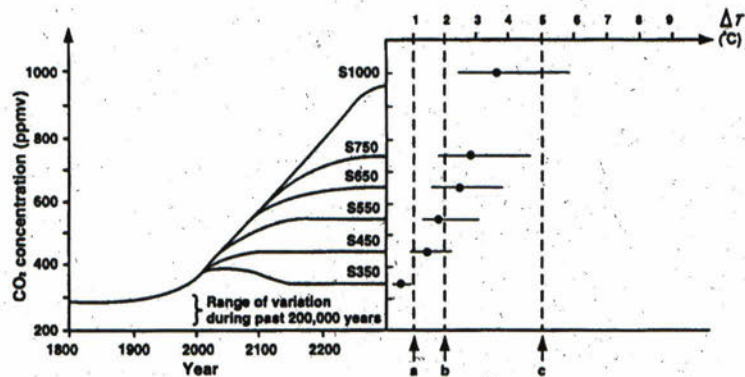


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32. And we need to think long. Whatever target for 2010 is agreed at Kyoto can only be a first step for the international community. A long term view of policy options is necessary; effective decisions in the short term must not hinder our options for taking measures to meet future reductions targets.

33. In the short term, significant reductions in greenhouse gas emissions are technically possible, and can be economically feasible. Policy measures to accelerate technology development, and to encourage diffusion and transfer of new technologies to all centres, will help. An integrated transport policy, plus strict air quality standards, should help reduce vehicle emissions, but will not of itself be sufficient without development of cleaner fuels, more efficient engines, and alternative energy sources. The same is true for energy supply for industrial and domestic uses. New technologies will need to include reductions in emissions of greenhouse gases in the "harvesting" and subsequent use of fossil fuels, switching to non-fossil fuel sources of energy and a better efficiency of energy use where possible. Better management of the natural environment can also help. Improvements in how we develop and sustainably use forests, agricultural lands, and soils in general could play an important part in reducing emissions and in enhancing the rate at which carbon is biologically fixed.

34. UK industry should see climate change as opportunity not as threat. Industry should be constructively addressing climate change in their forward planning. Mitigation of climate change will require big changes in the energy, transport and construction industries, in terms of much greater efficiency in production and use (which in turn will bring greater industrial efficiency and competitiveness) and the development of appropriate, known, technologies. Many aspects of the Foresight initiative are addressing these questions.

35. Most of these actions will be impossible unless the public in general are persuaded of the need for them. For example, if we are to cut transport emissions not just per vehicle but in aggregate, then some tough choices may have to be made about private car usage. I believe there is a crucial role for ministers collectively to play, leading the British people to appreciate the need to take firm and early action.

36. The quality of the UK's contribution to research on climate change, in the broadest sense, is strong out of all proportion to our relative size or research spending. We should aim to maintain this strength, so as to have international policy underpinned by fundamental understanding, to continue our position of international policy and scientific leadership in this arena, and to help persuade the world's sceptics that climate change is a real and serious problem.

37. Ultimately, the problem of climate change demands international co-operation and co-ordination. No matter how good a job we do in the UK, its global effects will be marginal compared with what happens over the next few decades in, say, China. Developed countries, with the highest level of emissions, need to take the lead. We need to promote among developed countries an understanding that serious and urgent action to limit emissions is needed, and to press for a solid result in Kyoto. I also believe the Government should use the moral authority conferred by the UK's conscientious efforts to meet its own targets, combined with our disproportionate contributions to basic understanding of the underpinning science, to help developing countries reconcile sustainable development with amelioration of atmospheric greenhouse gas emissions as far as possible. By this, of course, I do not mean patronising moral exhortations nor throwing money at problems, but rather partnerships in which we

explore appropriate forms of help. The Global Environment Facility and, on a small scale (around £3m pa), the post-Rio Darwin Initiative for helping developing countries record and conserve their biological diversity, are models.

Sir Robert May

Chief Scientific Adviser

September 1997

Int'l Actions



Office of Science and Technology

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Climate Change

A note by the UK Chief Scientific Adviser,

Sir Robert May

SEPTEMBER 1997

CLIMATE CHANGE

Note by Sir Robert May FRS

This note sets out my personal view of a subject in which there remain significant uncertainties. The main source of assessment of the science is the UN Intergovernmental Panel on Climate Change (IPCC). This is supported by 150 nations, and the UK chairs its science working group. Its last scientific assessment drew on the work of some 3,000 of the world's leading scientists.

The Greenhouse effect and concerns about it

2. The physical principle of the greenhouse effect is well established. Put simply, the earth's surface temperature depends on the balance between incoming short-wave energy from the sun and outgoing long-wave energy emitted from the earth's surface and atmosphere. Some gases ("greenhouse gases") in the atmosphere allow short-wave solar radiation to pass through and warm the earth's surface, but at the same time these gases trap some of the long-wave infrared radiation emitted by the ground, and keep the earth warmer than it would otherwise be. Were it not for these natural "greenhouse gases", the most important of which is water vapour, the earth would be roughly 30°C colder, and we would not be here.

3. Concern arises because human activities are increasing the concentration of greenhouse gases, particularly carbon dioxide and methane. While these facts are certain, the implications for changes in average temperatures, both global and local, are less certain. The ultimate effects of such temperature change on rainfall and storm patterns - floods and droughts - and on other aspects of our environment are hard to predict in detail, although the broad outlines seem clear. In what follows I expand on these themes, sketch some likely consequences for different parts of Britain and other places, and outline some policy choices.

Facts about greenhouse gases

4. Concentration of carbon dioxide in the atmosphere has increased by about 25% over the past 100 years (Fig 1). If current trends in fossil fuel burning continue, carbon dioxide will be present in the atmosphere at twice pre-industrial levels by around the middle of the next century. Once atmospheric concentrations have been increased they take a long time, characteristically around 100 years, to decrease even if no more carbon dioxide is added. As with turning a large ship, there are long lags between actions aimed at levelling-off carbon dioxide levels, and the levels actually stabilising. This is a strong argument for early action.
5. Other gases, including methane, nitrous oxide and chlorofluorocarbons (CFCs) also contribute to the greenhouse effect. They too have been increasing in the atmosphere. Methane levels have doubled over the last 100 years. Nitrous oxide levels are currently rising at around 0.25% each year. As for carbon dioxide, all these increases are clearly caused by human activities, largely connected with energy generation, transport and agriculture.
6. Carbon dioxide contributes most to human-caused global warming, accounting for around 70% of the total. The other gases contribute the remaining 30%, with methane accounting for about 20%.

Greenhouse gases and global temperature

7. Over the past 130 years, global average temperature has risen about 0.6°C (Fig 1). This may sound trivial. But the temperature difference between today and the extreme of the last ice age, 20,000 years ago, is only about 5°C (although this was a decrease, rather than an increase, in temperature). The estimated range of variability in global temperature over the past 1,000 years is around 1°C.
8. Direct attribution of these temperature changes to human activities is complicated by the fact that climate varies naturally from year to year, and from decade to decade. Long-term human-induced warming has to be distinguished against this natural background. Although we do not have data reaching back many hundreds of years, by comparing observations of global

mean temperatures with natural variability estimated from climate models, we find the warming has, over the past couple of decades, extended beyond the bounds of our estimates of natural variability. This is why the IPCC considered it valid to conclude that the balance of evidence suggests a discernible human influence on global atmosphere.

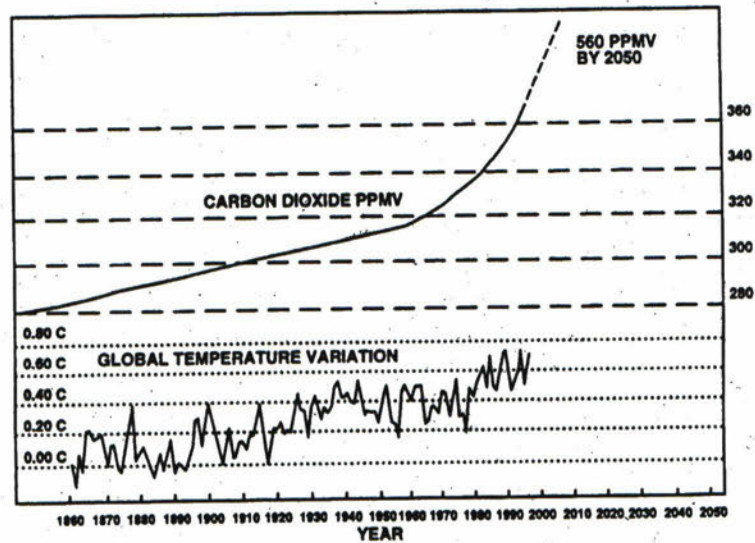


Figure 1

9. In order to predict how increases in atmospheric concentrations of carbon dioxide and other greenhouse gases will affect global temperature and other climate variables in the future, complex mathematical models of the earth's climate system have been developed. There is no dispute that, all other things being equal, a doubling of atmospheric carbon dioxide concentration would, by itself, lead to an increase in average global temperature of around 1.2°C.

10. The difficulty is that other things are not equal. A serious problem is that the models are highly non-linear. A doubled input does not necessarily lead to a doubled output; two and two do not always add up to four. These mathematical arcana are often manifested in feedback effects, which can amplify or ameliorate global warming. Important such feedbacks in global climate models arise from water vapour, cloud cover, ocean circulation, reflection from icecaps, and other things.

11. With a warmer atmosphere, more evaporation occurs from the oceans and from wetland surfaces. On average, a warmer atmosphere will possess a higher water vapour content. Water vapour is a powerful greenhouse gas, so a positive feedback results, amplifying the warming effects.
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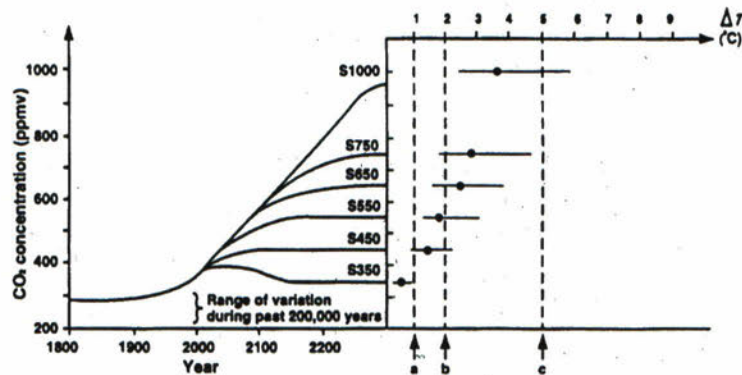


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35. Most of these actions will be impossible unless the public in general are persuaded of the need for them. For example, if we are to cut transport emissions not just per vehicle but in aggregate, then some tough choices may have to be made about private car usage. I believe there is a crucial role for ministers collectively to play, leading the British people to appreciate the need to take firm and early action.

36. The quality of the UK's contribution to research on climate change, in the broadest sense, is strong out of all proportion to our relative size or research spending. We should aim to maintain this strength, so as to have international policy underpinned by fundamental understanding, to continue our position of international policy and scientific leadership in this arena, and to help persuade the world's sceptics that climate change is a real and serious problem.

37. Ultimately, the problem of climate change demands international co-operation and co-ordination. No matter how good a job we do in the UK, its global effects will be marginal compared with what happens over the next few decades in, say, China. Developed countries, with the highest level of emissions, need to take the lead. We need to promote among developed countries an understanding that serious and urgent action to limit emissions is needed, and to press for a solid result in Kyoto. I also believe the Government should use the moral authority conferred by the UK's conscientious efforts to meet its own targets, combined with our disproportionate contributions to basic understanding of the underpinning science, to help developing countries reconcile sustainable development with amelioration of atmospheric greenhouse gas emissions as far as possible. By this, of course, I do not mean patronising moral exhortations nor throwing money at problems, but rather partnerships in which we

explore appropriate forms of help. The Global Environment Facility and, on a small scale (around £3m pa), the post-Rio Darwin Initiative for helping developing countries record and conserve their biological diversity, are models.

Sir Robert May
Chief Scientific Adviser
September 1997

U.S. DEPARTMENT OF ENERGY

For Immediate Release

October 29, 1997

FACT SHEET
U.S.-CHINA ENERGY AND ENVIRONMENT COOPERATION INITIATIVE

The new U.S.-China Energy and Environment Cooperation Initiative embraces the energy and environmental goals of the two nations and identifies priority areas for future cooperation. The joint statement is an outgrowth of the U.S.-China Forum on Environment and Development, established during the visit to China by Vice President Gore in March of 1997.

The joint statement on the Initiative notes the intention of the two nations to undertake a sustained joint cooperative effort in three priority areas: urban air quality; rural electrification; and clean energy sources and energy efficiency. This addresses China's goals to: bring electricity to the nearly 100 million people in rural areas without electricity; mitigate severe air pollution problems in Chinese cities; promote energy efficiency; and accelerate deployment of clean energy sources and technologies. Estimates point to large potential for these solutions in the Chinese market. For instance, China could potentially save 40% of its consumption in the industrial sector by raising industrial energy efficiency standards to international levels. China also is seeking to expand development of: its substantial renewable energy resources, which include an estimated 253 gigawatts of wind energy potential; its indigenous oil and gas resources; and to increase utilization of clean technologies in the power sector, which is expected to expand at the rate of approximately 15 GW per year. The joint statement recognizes the expanded role that U.S. technology capabilities and U.S. industry could play in meeting these challenges and the substantial trade and investment opportunities which could ensue. In its Ninth Five-Year Plan alone, China expects to spend \$100 billion on electric power development; investment requirements in the energy sector as a whole over the next twenty years have been estimated to be on the order of \$1 trillion.

The Joint Statement endorses principles of cooperation to promote the role of the private sector. The Chinese Government notes that it will: "...welcome international investment and economic and technology cooperation of various forms in China on open, fair and reciprocal terms ..." and "...will continue to implement energy policy, regulatory, and pricing reforms, which improve the climate for trade and investment in energy and environmental projects.." The U.S. Government, in turn, plans to look at ways that it might help leverage private sector participation in Chinese energy sector development.

Since the Governments of the United States and the People's Republic of China initiated formal cooperation in science and technology under a Science and Technology Agreement signed in 1979, global energy and environmental concerns and challenges have become increasingly integrated. As the world's two largest energy consumers, the U.S. and China will each play important roles in the world energy market and in determining, through their energy and technology choices, how to meet their energy needs in a way that protects the local, regional and global environment.

China has the world's most rapidly developing economy and associated energy needs are expected to double over the next twenty years. China is pursuing energy efficiency and a wide range of technology options to meet its needs and to help diversify its energy supplies, which are now 75% reliant on coal. A number of cooperative programs between the U.S. and China have been undertaken in support of China's efforts and the goals and objectives of its Ninth Five-Year Plan and Agenda 21 program.

U.S. and Chinese energy and environmental cooperation has evolved to address new challenges. Cooperative efforts now span a wide spectrum, including cooperation in: energy efficiency; renewable energy; clean coal technology; coalbed methane; climate change; high energy physics; and nuclear physics and controlled magnetic fusion.

The two nations have a strong foundation of cooperation on which to build:

Highlights of U.S.-China Cooperation on Energy and the Environment:

Renewable Energy

The U.S. and China have a number of accomplishments in the renewable area. Among these accomplishments are: the electrification of 600 homes in Gansu province to be completed by July 1998 based on an equally cost-shared program between the two countries; a feasibility study of small scale wind/PV/diesel systems conducted for Inner Mongolia resulting in plans by Inner Mongolia to install these systems in 360 homes; wind resource assessment and mapping; feasibility studies on biogasification; and marketing and technical assessments for renewable applications in six provinces.

Energy Efficiency

The two nations have adopted action plans identifying cooperative efforts in ten priority areas. This will include: a cooperative effort with the Natural Resources Defense Council to sponsor a conference in Beijing in December to share U.S. efficiency policy experience and its applicability to China; development of a Motor Challenge program for China aimed at electric motors for the industrial sector suited to China's needs; developing a contract model for U.S.-China cogeneration projects; demonstration projects in China through U.S. industry in energy efficiency enhancements in apartment buildings; and cooperation in energy efficient lighting in support of China's "green lights" program.

To increase opportunities for deployment of U.S. commercial renewable and energy efficiency projects in China, the two countries are working together to establish a \$50 million credit facility by the U.S. Export-Import Bank for such projects. The two governments will begin the process of identifying projects suitable for the credit facility.

Fossil Energy and Clean Coal Technology

Cooperation in fossil energy has included: the establishment of a U.S.-China Energy and Environment Center in Beijing which began operation in January 1997; technical and financial

assessments of Integrated Gasification Combined Cycle technology; a joint experts report on coal preparation applications for China; and support for U.S. technology suppliers in environmental control systems for SO₂ and NO_x. China's State Planning Commission has also agreed in principle on the establishment of a U.S.-China Oil and Gas Forum of government and industry experts from both countries, the first meeting of which is being planned for 1998. The objective of the Forum will be to assist China in its effort to secure reliable, economic, clean and abundant sources of oil and gas.

Air Quality, Public Health, and Global Climate Change

The U.S. is assisting China in: epidemiological research on the effect of airborne particulates on children's health and on the effect of indoor burning of smoky coals on public health; its effort to phase out lead in gasoline; developing and using coalbed methane sources; and assessments and information exchange on large and regional scale climate models and general circulation models. The U.S. is also providing assistance to China to support its climate change country study, national climate change action plan development, and associated energy technology cooperation. U.S. financial support for China's country study and national action plan totals more than \$1,900,000 and China has contributed \$300,000 (in kind). Through this program, more than one hundred Chinese analysts and technical experts have been brought to the largest climate change analysis ever conducted in China. U.S.-China joint research on climate change has provided unique data sets including a 2000 year climate record and some 150 publications over 10 years of effort.

U.S.-China Energy and Environment Cooperation Initiative:

A central goal of the new Initiative is to intensify cooperative efforts between the two nations and seek to mobilize significant levels of clean energy trade, investment and appropriate technology transfer over the next five years. Cooperative efforts will focus on:

Urban Air Quality: governmental cooperation on energy related air pollution problems in such areas as: urban air quality monitoring; implementation of emissions standards; housing related issues; the phase-out of lead and other air pollutants; and enhanced business sector involvement in natural gas infrastructure development, coal gasification, manufacture and use of energy efficient vehicles, emissions monitoring equipment, and improved vehicle fuels.

Rural Electrification and Energy Sources: a substantial program, involving governmental and business sector cooperation, to bring clean energy systems to China's rural areas, using grid-connected windfarms, solar home systems, biomass, geothermal production and use, mini and micro hydro, and natural gas-fired systems.

Clean Energy Sources and Energy Efficiency: a substantial program, involving governmental and business sector cooperation, to promote U.S. -China cooperation on clean energy sources such as clean coal technologies, natural gas and coal-bed methane development, oil sector development, renewable energy and energy efficiency.

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The Initiative will be led for the United States Government by the U.S. Department of Energy, in conjunction with the Department of Commerce, the Office of Science and Technology Policy and with the Environmental Protection Agency and other agencies participating in the U.S.-China Environment and Development Forum. For China, implementation of the Initiative will be led by the State Planning Commission, in conjunction with the State Science and Technology Commission and the National Environmental Protection Agency of China. Progress on implementing the Initiative will be reported annually to the leaders of the two governments.

Int'l Action

UNITED STATES OF AMERICA
AND
PEOPLE'S REPUBLIC OF CHINA

ENERGY AND ENVIRONMENT COOPERATION INITIATIVE

Mission

- A sustained joint effort, through governmental cooperation and participation of the business and other sectors, to help meet China's energy needs, while striving to protect the local, regional, and global environment.

Goals

- Contribution to local, regional, and multilateral environmental objectives -- from improving public health to addressing climate change.
- Enhanced bilateral cooperation in the fields of energy and environment that may include science, technology, commerce, and other areas.
- Mobilization of significant levels of clean energy trade, investment, and appropriate technology transfer over the next five years.

Targeted Areas

- Urban air quality: governmental cooperation on energy related air pollution problems in such areas as urban air quality monitoring, implementation of emissions standards, housing related issues (building materials, home heating and cooking), and the reduction of lead and other air pollutants; enhanced business sector involvement in natural gas infrastructure development, coal gasification, manufacture and use of energy efficient vehicles, emissions monitoring equipment, and improved vehicle fuels.
- Rural electrification and energy sources: a substantial program, involving cooperation of governmental, business, and other sectors, to bring clean energy systems to China's rural areas, using grid-connected and off-grid renewables, mini and micro hydro, and natural gas-fired systems.
- Clean energy sources and energy efficiency: a substantial program, involving cooperation of governmental, business, and other sectors, to promote U.S.-China cooperation on: 1) clean energy sources in such areas as coal liquification, coal integrated gasification combined cycle (IGCC), circulating fluidized bed (CFB), natural gas and coal-bed methane development, oil sector development, wind energy, and solar energy; 2) energy efficiency in such areas as electric motor systems, cogeneration, industrial process controls, lighting, district heating, transformers and buildings; and government commitment to facilitate and support these cooperation efforts.
- The initiative can also address cooperation in peaceful uses of nuclear energy, consistent with the 1985 bilateral agreement on this subject.

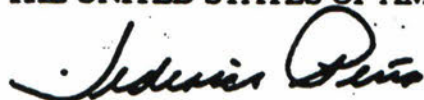
- China will actively support international cooperation in relevant fields and welcome international investment and economic and technology cooperation of various forms in China on open, fair, and reciprocal terms to meet the country's energy needs and protect the environment in a sustained way. China will continue to implement energy policy, regulatory, and pricing reforms, which improve the climate for trade and investment in energy and environmental projects.
- The U.S. economy can offer cost-competitive, environmentally superior energy technologies. In the context of this initiative, the U.S. government will look at ways that it might help leverage private sector participation in Chinese energy sector development. Steps the U.S. government could consider include appropriate legal authority for such U.S. programs as the Trade and Development Agency.
- Environmentally sound energy technologies should be studied and applied, taking into consideration life-cycle costing, externalities, and innovative financing mechanisms.
- The initiative could accelerate the deployment of clean energy projects and the appropriate transfer of related technologies by identifying project opportunities and leveraging private and other sources of capital. It could also set the stage for broader cooperation on global environmental issues.

Implementation

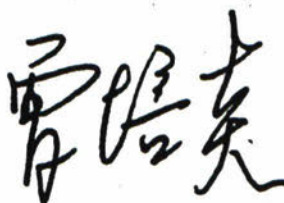
- The U.S. and Chinese governments should each take steps to support implementation of this initiative, which is confirmed by the summit of President William J. Clinton and President Jiang Zemin as an outgrowth of the U.S.-China Forum on Environment and Development.
- The implementation will be led by the Department of Energy -- in conjunction with the Office of Science and Technology Policy and the Department of Commerce -- for the U.S., and the State Planning Commission -- in conjunction with the State Science and Technology Commission and the National Environmental Protection Agency -- for China, in consultation with all relevant agencies of the two governments participating in the U.S.-China Forum on Environment and Development.
- Within the framework of the initiative, representatives of the U.S. and Chinese governments should conduct concrete discussions on cooperative efforts, sign relevant agreements, and report annually to the leaders of their respective governments on progress in implementation.

Signed at Washington, D.C., this twenty-ninth day of October, 1997, in the English and Chinese languages.

FOR THE GOVERNMENT OF
THE UNITED STATES OF AMERICA:



FOR THE GOVERNMENT OF
THE PEOPLE'S REPUBLIC OF CHINA:



Bill - docs from Pete - let me know what you want - I'll be working on it M

Int'l Action

OFFICE OF THE VICE PRESIDENT

For Immediate Release
October 29, 1997

Contact: Jonathan Spalter
202-456-7035

**UNITED STATES AND CHINA ADVANCE ENERGY
AND ENVIRONMENT COOPERATION**

Vice President Al Gore today announced an initiative that will move the countries toward greater cooperation in energy and environmental science, technology and trade. The measures will build upon the Clinton Administration's efforts to engage China in joint initiatives that promote sustainable development. They also help lay the groundwork for reaching common ground in addressing climate change.

Secretary of Energy Federico Pena and Minister Zeng Peiyan, Vice Chairman of China's State Planning Commission, today signed the first comprehensive statement on energy and the environment between the world's two largest energy-consuming nations. The nations plan a joint program of conducting research; sharing data; expanding the use of energy efficiency and clean energy technologies such as natural gas, clean coal and renewables; and facilitating trade and investment in these technologies. The initiatives will help meet China's growing energy needs and rural electrification objectives with clean energy solutions.

"With the momentum building for international cooperation on the environment, this is an opportune time to expand U.S.-Chinese cooperation in ways that will benefit both the environment and the global economy," said Vice President Gore. "By applying the most advanced scientific and technologies tools and inviting the private sector's participation, we are opening the way for meeting China's and, in turn, the worldwide energy challenges of the future."

The joint statement was signed during a U.S.-Summit between Presidents Bill Clinton and Jiang Zemin this week and is an outgrowth of the U.S.-China Environment and Development Forum established in March 1997 during the Vice President's visit to Beijing. Under that broader umbrella of cooperation, the energy initiative addresses cooperation in local, regional and multilateral environmental objectives, including climate change; energy and environmental science and technology; and clean energy trade, investment and technology deployment over the next five years.

The joint work will target China's objectives to bring electricity to nearly 100 million people in rural areas and to address urgent air quality problems in Chinese cities. In the rural electrification program, which is already under way, public and private partners are developing and deploying grid-connected and off-grid renewable energy sources, mini and micro hydro projects and natural gas-fired systems. Measures that are addressing air pollution include urban air quality monitoring, emissions standards and reduction of lead and other pollutants. Energy efficiency and clean energy initiatives including clean-coal technologies, natural gas technologies and wind and solar energy.

The expanded cooperation, which will be conducted in coordination with the Department of Energy, the Department of Commerce, the Office of Science and Technology Policy, the Environmental Protection Agency, and other federal agencies, will draw on U.S. scientific and technologic capabilities for helping China meet these challenges in an environmentally sound way, while expanding investment and trade opportunities for U.S. companies. The United States can offer cost-competitive, environmentally superior technologies to help meet China's energy needs, which are projected to double in 20 years. In the joint statement, China noted its plans to increase business sector participation in meeting this challenge and to implement energy policy, regulator and pricing reforms that will improve the climate for trade and investment.

Secretary Pena and Minister Zeng discussed tentative plans for a U.S.-China Oil and Gas Forum for next year and the possible establishment of a \$50 million commercial credit facility by the Export-Import Bank for energy efficiency and renewable energy projects in China. The U.S. Department of Energy would help China identify projects for the latter. These activities were initially discussed during meetings between Secretary Pena and Vice Chairman of the State Planning Commission Ye Qing in May 1997.

Since their first bilateral science and technology agreements, the two countries have undertaken cooperative projects in energy efficiency, renewable energy, fossil. Energy, nuclear physics and controlled magnetic fusion, and global climate change. Accomplishments have included establishment of an energy and environmental center in Beijing; installation of solar systems in 600 households in Gansu province; wind assessments; feasibility studies of biogasification, wind, and clean coal technologies, adoption of an energy efficiency action plan; and a climate study.

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Key Country Positions – Climate Change Negotiations (As of 10-30-97)

	U.S.	Japan	Australia	NZ	Canada	EU	G77/China*	Russia	Brazil
Budget periods	yes	yes	yes	yes	yes	probably	maybe	yes	yes-diff. form
Target: Uniform or Differentiated	uniform	differentiated	differentiated	differentiated	uniform, but hinting at differentiation	uniform, but EU "bubble"	uniform, for Annex I only	differentiated, in Annex I "bubble"	differentiated
Has Country or Group Tabled Its Target?	yes (0%)	yes (0-5%)	no	no	no, but announcement expected 10/31	yes (15%)	yes, for Annex I only	yes (?)	yes (?)
Baseline	1990	1990	1990	1990	1990	1990	1990	1990	multi-year
International Emissions Trading	yes	yes, w/conditions	yes	yes	yes	no, limited JI in Annex I only in lieu of trading	no	yes**	yes
Carbon Taxes	no	no	no	maybe	no	maybe	no	no	no
Joint Implement. w/Credit	yes	yes, w/conditions	yes, but light	yes, but light	yes, but light	limited JI in Annex I only	clean development fund	?	clean development fund
Developing Country Commitments/ Evolution***	yes	light	yes	yes	yes	conditional, tied to early review	no	yes	no
Harmonized Policy & Measures	no	yes, but light	no	yes, but light	yes, but light	yes	no	no	no
Annex B	yes	light	yes	yes	yes	Annex X****	no	yes	no
Compensation	no	no	no	no	no	no	yes	no	yes

* G77/China has put forth a unified position, but that position masks substantial differences within its ranks.

** Russia would like trading to include "paper tons" for its below-baseline emissions *prior* to the first budget period.

*** Chairman has omitted evolution from the text of the protocol, but not ruled out possibility of inclusion in a "Kyoto Mandate."

**** Annex X is the EU's name for a proposal that is very similar to the U.S. proposal.

DRAFT

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MEMORANDUM FOR BILL ANTHOLIS
FROM: MICHELLE FORREST
RE: SUMMARY OF REACTIONS TO CLIMATE POLICY

Denmark

Pledged to work with the U.S. to prevent a breakdown at Kyoto despite disparity of positions. Expressed reservations about U.S. ability to bring significant funding to joint projects.

Venezuela

Does not like the EU proposal; thought US proposal was helpful. Does not want to make any commitments regarding JI, especially since it feels it must protect its status as a petroleum exporter and efficient JI projects may jeopardize that. The government has yet to come to consensus on this issue.

Bangladesh

Seemed interested and aware, but no commitments.

Saudi Arabia

"Did not understand" why they were supporting aggressive G-77 position, but will look into it. Wanted to work within the G-77 and were not supportive of JI. Recalled very productive meeting with U/S Wirth In September.

Honduras

Surprised by negative reaction to US proposal and said JI had a future in Honduras and that it was "very important" for US and Central America. Embassy thinks Honduras will be guided by overall Central American approach on this issue.

Ecuador

Leaning towards Costa Rica proposal of capping percentage of emissions credits that can be obtained through JI, though they recognize and support the benefits of JI. Concerned about effects on petroleum revenues of some GHG reduction schemes.

Mexico

As you know, working on an agreement along the lines of Argentina's. Realize that there is mutual interest. They were surprised by the breadth and negativity of reaction to our policy.

UNFCCC Issues Comparison Chart

Intl ~~Issues~~
Actions

Issues	ICCP Position	U.S. Negotiating Position	Chairman's Text
Compliance		Review and reporting with penalties for non-compliance.	To be determined at the first meeting of the Parties post-Kyoto.
Developing Country Role	Developing country commitments should be known prior to first budget period.	Developing country commitments required.	No new commitments. Voluntary commitments allowed.
Differentiation	Uniform goals for all countries	Uniform goals for all countries	Includes option for different commitments for Annex I Parties.
Emissions Trading	Emissions trading between all countries. Credit for early action.	Emissions trading among countries with binding commitments. Credit for early action.	Allows trading between Annex I and Article 10 countries that are in compliance with obligations. Emissions levels achieved prior to the establishment of a trading system cannot be used for trading. No developing country trading.
Entry Into Force	Significant percentage (75%) of emissions and majority of developed and developing countries or parties represented	Unspecified	Requires ratification, acceptance or approval by at least 50 countries whose emissions are at least 3 gigatonnes of Carbon.
Gases Covered	Comprehensive approach	Comprehensive approach	Comprehensive approach (basket of gases) suggested but some gases and sinks are qualified.
Joint Implementation	Joint implementation projects allowed between all Parties	Joint implementation projects allowed between all Parties	Allows JI credit between Annex I or Article 10 Parties. All other projects will be decided after the completion of pilot phase - post 2000.
Long Term Objective	To be established by Parties	To be included in Protocol	None required
Policies and Measures	None mandated and no voluntary annex listing	None mandated	Contains Annex of policies and measures which should be adopted according to national circumstances. Parties should aim to implement those identified in Annex as part of fulfilling commitment.
Targets & Timetables	Budget period should not end prior to 2020 and take into account need for implementation, investment cycles and economic conditions.	Multi-year budget period of 3, 5 or 10 years. No reduction target specified.	Reduce, limit, net or aggregate emissions by 5, 15, or 20% below baseline of 1990 or period surrounding 1990. Timetable by 2010 or period surrounding 2010.