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Tax Cuts/Credits GCC [Global Climate Change]

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MEMBER

EXECUTIVE OFFICE OF THE PRESIDENT  
COUNCIL OF ECONOMIC ADVISERS  
WASHINGTON, D.C. 20500

November 20, 1998

cc: JY  
JA  
SP  
QF  
Comp

MEMORANDUM FOR TODD STERN

FROM: JEFF FRANKEL *JF*

SUBJECT: A NEW IDEA HOW TO DO SOMETHING IN THE AUTO SECTOR

I know that you have run into some roadblocks on the proposal for tax credits for fuel-efficient cars. You might be in the market for "outside the box" suggestions for how to do something in the auto sector. So I thought I would offer one.

The Administration could announce a regular series of cash awards for anyone making an outstanding contribution to reducing GHG emissions in the auto sector. It could be annual, like the Baldrige Awards, or more frequent. Recipients could include large corporations, private research labs, national labs, individuals (e.g., authors or inventors), think-tanks, NGOs, and local governments.

Hypothetical examples:

- Innovations in the vehicle:
  - redesigned engines that increase efficiency such as direct injection
  - light-weight materials
  - improved power source such as fuel cells
- Innovations in fuels:
  - improved refining methods that lower costs of reducing sulfur
  - improved natural gas or other alternative fuels
- Innovation in systems:
  - switch of corporate/government fleets
  - systems of delivering alternative fuels
- Innovations in infrastructure:
  - improved traffic monitoring and information to reduce congestion
  - automated tolls systems

I have discussed this with other members of the economists team (though not at the senior level), and they are enthusiastic about the idea.

cc: David Wilcox, Bob Cumby, Mark Mazur, Victoria Greenfield

cc: files ✓  
Conques ✓

SU mgj  
4:30

To: Janet Yellen, Jeff Frankel

From: Steve Polasky

RE: Auto Tax Credit

November 6, 1998

The idea of proposing a technology credit for automobiles to include in the Administration's 2000 budget is being seriously considered. The issue may go to principals as early as the week of November 9.

*Background.*

On November 2, Sally Katzen convened a meeting to discuss possible tax credits for fuel efficient vehicles to be included in the Administration's budget proposal for 2000. The performance-based tax credit in the 1999 Administration budget proposal died, largely because of lack of support from the Big 3 domestic producers. Transportation is a large sector with no climate change initiative at present. There is a strong desire within the Administration to put together an initiative that will be acceptable to the Big 3 and the environmental community.

*Performance-Based or Technology-Based Tax Credit*

The domestic producers favor a technology-based tax credit. The performance-based approach would give a tax credit for vehicles that were twice (2X) or three times (3X) as efficient as the average vehicle in its class. The auto companies feel that the 2X or 3X standard is too demanding and unlikely to be reached in the time frame proposed. In addition, they think there are problems with definition of vehicle classes. Another concern of the domestic producers may be the competitive advantage that a performance-based tax credit might give to foreign producers. The domestic producer's view is that if the introduction of new technology is the major policy goal, then a technology-based tax credit is the correct approach.

Treasury and environmental groups have argued for a performance-based approach. There is the standard criticism that a technology-based approach forces the government into the position of trying to pick winners. There is also the concern that without a performance standard, there may be no environmental gain from the tax credit. The fear is that the auto companies will include the technology but then offset this by building "bigger, faster, stronger" vehicles leaving average fuel efficiency largely unchanged. In particular, if CAFE constraints are binding, installing the technology on some vehicles allows a company to sell more large fuel inefficient vehicles, leaving fuel efficiency of the company's fleet at the CAFE constraint level. Even without a binding constraint, some improvement in technology will likely go toward performance enhancement (bigger, faster, stronger) rather than fuel efficiency.

In reality, both the technology and the performance standards are subject to this criticism. Under a performance standard, increasing the proportion of vehicles in the large fuel-inefficient

categories can allow a company to improve fuel efficiency of particular vehicles while still keeping overall fuel efficiency constant.

### *Proposed Tier II Rules on Tailpipe Emissions*

A technology favored by the domestic producers is CIDI (compression ignition direct injection), which uses diesel fuel. Using current high sulfur diesel fuel would generate high levels of NOx and particulate matter emissions. Even with low sulfur fuel, diesel technology generates higher emissions of NOx and particulates than gasoline engines.

The EPA is in the process of drafting new emissions standards for vehicles (Tier II standards). It is not clear that rewarding CIDI with a tax credit will be consistent with Tier II rules or will be acceptable to environmentalists. There is some tension between meeting NAAQS for ozone and PM and lowering carbon emissions.

### *Summary*

There is no guarantee that a tax credit, either based on performance within a defined class or based on technology, will yield fuel efficiency or other gains. I am somewhat skeptical of the merits of pushing for a tax credit unless it could be based on a pure performance standard (without reference to classes), which seems to be a non-starter politically. Even so, the costs of the program are not likely to be large. If a proposal comes forward that can manage the difficult task of satisfying the various constituent groups, my inclination would be to try to insure that desirable outcomes are advanced with the tax credit rather than opposing it altogether.

D Gardner

6/1/98

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138?

(2)

$\frac{2010}{1722}$  baseline  $\rightarrow$  1350 442  
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 1.25 66  
 135 at \$25/Ton  
 92 \$

EC

**CLIMATE CHANGE AND THE BUDGET**  
October 16, 1997

**QUESTION 1: DO WE PROPOSE A REVENUE-NEUTRAL SET OF TAX CUTS ON CLIMATE CHANGE?**

There is much interest in a package of tax *cuts* in the near term to spur energy efficiency and lower-carbon technologies. But there are two critical questions about such a tax package:

- An overall strategic question, given the budget agreement, is whether we want to offer tax cuts in any area. A potential danger with proposing climate change tax cuts is that we could open up a bidding war over tax cuts generally. But it may be possible for us to draw an important distinction between *gross* and *net* tax cuts -- that we support only revenue-neutral tax plans.
- A specific question, if we decide to offer a tax cut package, is how best to design the package. Treasury tax policy staff are working with DOE, EPA, OMB, and other agencies to put together a package of tax cuts amounting to perhaps \$1.5 billion per year.

Some of the preliminary ideas include:

- Tax subsidies to convert coal-fired power plants to gas;
- Extension of the existing tax incentive for wind and "closed loop" biomass energy;
- Tax credits for purchases of "superstar" energy-efficient devices and fuel-efficient cars;
- Investment credits for energy-efficient buildings; and
- An expanded research tax credit for energy-efficiency research.

P wants to announce wed  
G.S. Tax cut package + R&D package  
Robin They're all  
crummy terrible tax policy. Doesn't mean we shouldn't do it.

## **QUESTION 2: DO WE SPECIFY A FUNDING LEVEL FOR R&D/TECHNOLOGY?**

There seems to be unanimous support for an aggressive Federal technology and R&D effort on climate change. The Department of Energy's 5-Labs study, the Department of Energy's 11-Nation Labs draft study, and the recent report from the President's Committee of Advisors on Science and Technology (PCAST) have all studied potential technologies that could help to reduce the cost of carbon emissions reductions.

One proposal that has been put together by DOE, with assistance from OMB and other agencies, would include an additional \$500 million per year starting in FY 1999, and ramping up to an additional \$1 billion by FY 2003. The effort would focus on promising areas including:

- Energy efficient equipment (e.g., a public service campaign to attract attention to the "Energy Star" label);
- 21<sup>st</sup> Century Housing (streamline federal, state, and local building and utility regulations in ways that encourage innovation in construction);
- Expanded Partnership for the Next Generation Vehicle (expand work on the next generation vehicle technologies including fuel cells; and expand PNGV to include light trucks/sport-utility vehicles);
- PNGV for Heavy Trucks (partnership with engine manufacturers to double the efficiency of heavy-duty trucks for civilian and military applications);
- Industries of the Future (enhance industry/government research partnerships in areas such as chemicals, aluminum, forest products and steel manufacturing technologies); and
- Renewables R&D (expand research partnerships in key renewable technologies such as wind, photovoltaics, geothermal, biomass and hydropower to accelerate cost reductions).

**DRAFT**

## A U.S. Strategy to Reduce Carbon Emissions: Technology Research, Development and Deployment

A national commitment to energy technologies will ensure that the U.S. can reduce and stabilize carbon emissions while maintaining a robust and healthy economy. The U.S. strategy is designed to make this goal a reality through a four part plan: 1) technology research, development and deployment (RD&D) to develop new technologies and increase the use of the best of what is available today; 2) federal tax incentives to spur technology development; 3) statutory and regulatory reform to advance technology innovation and deployment in markets; and 4) actions to accelerate the use of these technologies in federal facilities and vehicles.

The technology RD&D element involves public-private partnerships and deployment initiatives. These actions require additional federal technology funding of \$500 million in FY1999 - rising to \$1 billion in FY2003. If successful, these actions could help reduce emissions by more than 175 MMT by 2010 and even more in later years. The specific actions are summarized below.

- *Energy Efficient Building Equipment:* Use of more efficient equipment will be accelerated through expanded "Energy Star" labeling, accelerated equipment efficiency standards and other means. Increased RD&D partnerships will cut costs and develop new technologies.
- *21<sup>st</sup> Century Housing:* Partnerships with builders, suppliers, insurers, state and local governments, and federal regulators will lead to construction of more efficient, attractive and affordable housing.
- *Expanded Partnership for the Next Generation Vehicle (PNGV):* Increased funding of PNGV will better ensure the development of an 80 mpg mid-size car by 2005. A PNGV light trucks/sport-utility vehicle will also be developed.
- *PNGV for Heavy Trucks:* A partnership with engine manufacturers will double the efficiency of heavy-duty trucks for civilian and military applications.
- *Advanced Aircraft:* Advanced aircraft technologies and air traffic control practices will produce a 35% reduction in greenhouse gases per passenger miles traveled by 2020.
- *Biofuels:* Accelerated RD&D on energy crops, harvesting and fuel conversion processes will significantly expand use of biomass fuels for automobiles and other vehicles.
- *Combined Heat and Power:* Accelerated development of advanced turbines, fuel cells and other technologies along with streamlined permitting and other statutory and regulatory reforms will greatly accelerate use of highly efficient combined heat and power systems in industry.
- *Industries of the Future:* Enhanced industry/government research partnerships in energy intensive industries such as chemicals, aluminum, forest products and steel will produce technologies that cut emissions while improving productivity.
- *Efficient Motors and Production Systems:* Accelerated use of market-ready electric motor systems, steam systems and compressed air storage will improve efficiency, cut emissions and boost productivity across industry.
- *Renewable Energy RD&D:* Expanded research partnerships in key renewable technologies such as wind, photovoltaics, geothermal, biomass and hydropower will accelerate cost reductions and

**DRAFT**

performance improvements. Coordinated demonstrations and other deployment actions will lay the foundation for the widespread use of these zero-carbon technologies.

- *Advanced Fossil Energy RD&D:* Accelerated RD&D will enable use of coal and natural gas in highly efficient, low-emissions power plants.
- *Carbon Sequestration Technology RD&D:* Research, development and demonstration of advanced sequestration technologies that could enable the continued use of high-carbon fuels such as coal.
- *Advanced Nuclear Power R&D:* Research and development of a proliferation-resistant, low waste reactor will allow zero-carbon nuclear power to be an option for the future.
- *Basic Energy Research:* Research in materials, chemicals, biotechnology, geophysics, advanced computation, environmental and ecological sciences will establish the scientific foundation for revolutionary advances in technology necessary for substantial emissions reductions in the long term.

**DRAFT**

### Comparison of PCAST Recommendations and Draft White House Climate Technology Strategy

	PCAST Recommended Increment (v. FY98R) FY99    FY03		Draft Strategy Budget (above FY98R)			
			Incremental Budget \$500M FY99 Level		Recommended Budget Increment \$500M FY99 Level	
			FY99	FY03	FY99	FY03
<b>Buildings Efficiency</b>	49	164	85	210	55	155
Building system design and operation	5	51			5	45
Building equipment and materials	20	74	45	140	25	70
Codes and standards	4	4	5	10	5	5
Cross-cutting activities	20	35	35	60	20	35
<b>Industrial Efficiency</b>	44	129	65	145	55	135
Industries of the future	9	54	20	60	20	60
Cross-cutting activities	32	62	30	60	25	60
Technology access	3	13	15	25	10	15
<b>Transportation Efficiency</b>	65	130	140	260	115	140
PNGV (I & II)	46	71	100	180	80	100
Advanced heavy vehicles	12	42	40	100	35	40
Advanced materials	4	14				
Technology deployment	3	3				
<b>Fossil Energy (net including reductions)</b>	33	87	50	100	50	110
Coal power	-5	-2			15	20
Coal fuels	-7	0				
Gas power	14	-8			15	25
Oil and gas production and processing	9	38				
Carbon sequestration	8	20	50	100	20	50
Methane hydrates	5	12				-10
Hydrogen production from fossil fuels	1	7				
Collaborative International R&D	1	6				5
Management, env. Restor., coop. R&D, et.	7	18				
<b>Nuclear</b>	45	176	0	0	30	70
Life extension	-15	-15				
Proliferation-resistant reactors	50	103			30	70
Advanced light water reactors	-15	-15				
Fusion	25	103				
<b>Renewable Energy</b>	130	307	145	245	120	300
Biomass fuels	20	61	25	55		
Biomass power	25	55				
Geothermal	12	22				
Hydrogen	1	2				
Hydropower	3	11				
Photovoltaics	28	63				
Solar Thermal	12	27				
Wind	10	27				
Systems and storage, transmission	5	12				
Solar buildings	2	5				
International assistance	4	7				
Resource assessment and analysis	5	6				
Management, analysis, REPI, other	5	9				
<b>Basic Energy Research</b>	n/a	n/a	0	0	35	50
<b>TOTAL, TECHNOLOGY ELEMENTS</b>	366	993	485	980	460	960
<b>Non-PCAST Items:</b>	40	40	40	0	40	40
PNGV tax incentives						
Renewable energy tax incentives						
Industrial technology tax incentives						
Biofuels tax incentives						
Agriculture and forestry R&D			40			
Advanced aircraft R&D	40	40			40	40
<b>TOTAL, ALL ELEMENTS</b>	406	1033	525	980	500	1000

#### Recommended Changes to White House Draft Climate Strategy at the \$500 million level:

- 1) Additional funding is provided for advanced natural gas and coal generation technology R&D.
- 2) Additional funding is provided for advanced proliferation-resistant nuclear generation technology R&D.
- 3) Buildings and transportation R&D are reduced slightly to make room for fossil and nuclear increases.
- 4) Additional funding is provided for cross-cutting R&D (e.g., industrial sensors and controls).
- 5) Renewable energy R&D is lowered slightly to be consistent with PCAST.
- 6) An increment for climate related basic energy research is added.

# GCC tax credits

11/26/97

Karl S

Trey 1104

Treas.



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Karl  
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Henry  
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Mark  
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\$ through for carbon-savvy tech.  
 \$56 <sup>market</sup> Split so-so tax-cred? <sup>2-2</sup> but discretionary caps tight.  
 VP: want under (than \$2 1/2 on tax) → \$3 1/2 over 5 yrs. on tax  
 (2 1/2 on sp.)

Bldgs.

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me car classes

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we can't let auto 205. can't credit car

under CAFE std. no, right?

TRANSIT & rental benefit

Industry

Renewable  
Energy

Total 2.9

Gap 0.6

## TAX CREDIT FOR SUPER EFFICIENT HOMES

### **Option:**

Credit to persons who buy a home that uses 50% less energy than the model energy code. The tax credit would be for the purchase of a primary residence of 1% of the cost of a home, with a maximum credit of \$2000. The credit would phase out or the goal changed in 2005.

### **Verification:**

The tax credit would not come into effect until 1999. During the 1998 fiscal year, the National Institute of Standards and Technology (NIST) will work with industry, the Department of Energy and EPA to develop testing and verification procedures for these homes. NIST will use as it's baseline two existing items: (i) the International Measurement and Verification Protocol that has been sponsored by DOE, and (ii) lessons learned from the EPA energy star buildings program. The mechanism for verification will also be developed through existing DOE and EPA programs. NIST will complete the process in 6 months. This work will be closely coordinated with new efforts by major home insurance companies to rate the quality of new housing and housing components.

### **Analysis:**

About 1.5 millions housing units are built each year for a total value of \$128 billion. Three quarters of the new units are single units and of these about a third are mobile homes (or "manufactured housing"), most of which are never moved after installation. Current estimates suggest that with a \$2000/unit tax credit in place and a major national program aimed at advertising the benefits of energy efficiency, about 2% of all new homes could meet the goal of the tax credit (50% below model code level) in 1999 rising to 10% by 2005. This would imply tax expenditures of \$60 million in FY99 rising to \$300 million in FY2005 when the program would end or be redefined.

### **Benefit and Opportunity:**

Residential housing offers one of the largest sources of low-cost carbon savings available. Residences are responsible for 1/6 of all US greenhouse gases and technologies are available to cut this production in half at very low cost given adequate investment in innovation. Programs aimed at efficient appliances for retrofit will have the largest near-term impact on production of greenhouse gases but over the long term, innovation in the way houses are designed and built are essential to capture the potential. The potential of advanced housing components is often lost when they are installed in a poorly engineered structure.

Climate change tax credits are not adequate to serve as a surrogate for a carbon trading mechanism. Carefully targeted, however, they can serve to spur innovation in directions that can change construction practices in ways that would result in large gains

in energy efficiency as well as other benefits. Such targeted efforts are particularly important for home construction because the industry has traditionally had difficulty investing in innovation because of the way it has traditionally been regulated. The credits would give builders a way to reduce the risk of innovation and give them an important marketing tool. The credit would provide a highly visible, reliable indicator of quality (something difficult to achieve in a fragmented market), and would allow builders to recover development costs without raising initial home prices for the purchaser. Once R&D costs are recovered, the builders should be able to build units at costs below the costs of conventional construction.

The effort can be accelerated by working closely with insurance firms and financial institutions. Many of the energy efficiency improvements also improve the durability and disaster resistance of the home. The insurance industry is particularly interested in helping develop measurement and verification protocols for residential structures, and can be a partner in spurring innovation. This tax credit, and the work needed to develop a reliable measurement tool, will leverage private sector investment and encourage them to play a more active role in helping to improve the quality of housing while keeping homes affordable.

**Assumptions:**

- credits would be given to individual home buyers
- credits would be available for specific housing products from builders whose products had been given the needed rating.
- ratings would apply to the heating, cooling, ventilation, hot water, and major appliances commonly purchased with the home. They would not apply to appliances, such as television sets, purchased separately by homeowners.
- metrics would be developed for each major climate region.
- the tax credit would be given only for energy efficiency. The labeling and rating may well be developed in cooperation with insurance companies able to provide insurance rate benefits in addition to the tax credit
- the ratings would be an extension of the EPA energy-star rating. The EPA label would apply to a large class of new housing, the proposed credit would be given only to a small fraction of exceptional new housing.
- the ratings would need to be based in part on a construction method which ensured that each unit would meet the standard and would not require sophisticated inspections of each structure built.

**Alternative 1: High Threshold**

This option would provide \$4,000 credits to 25,000 units per year for a total annual federal cost of \$100M/year. This would allow each of five builders to construct 5,000 units.

**Pros:** Higher incentive would attract higher interest and keener competition. Development costs could be written off against smaller total sales volume.

**Cons:** Fewer builders would be affected (1.7% of total market). Could attract high-cost options. Credit still only 3% of value of average home

**Alternative 2: Low Threshold**

This option would provide \$1,000 credits to 100,000 units.

**Pros:** Incentives provided to larger number of builders and homeowners. 7% of all new homes would get the credit.

**Cons:** Could dilute credit and not provide adequate incentives to individual builders. Could be used simply to finance additional insulation or other measures and not induce a transformation in construction methods.

**Alternative 3: State or Community Management**

The tax credits could be given to states or communities who would compete for the right to grant the credit much as empowerment zones were given specified tax exemption rights.

***Pros:*** This would allow competition on local regulatory streamline proposals as well as competition on the methods proposed for use in rating the structures. It could encourage communities to participate in PATH experiments

***Cons:*** Could add complexity and management problems for Treasury.

**Table 1**  
**U.S. Home Construction**

	1990	1993	1994	1995	1996
<b>Units (thousands)</b>					
Total	1,193	1,264	1,457	1,345	1,477
1-unit	895	1,1256	1,198	1,076	1,161
Mobile Homes		243	286	311	364
2-unit	16.1	11.1	14.8	14.3	16.4
3 and 4 unit	21.4	18.3	20.2	19.4	28.8
5 units and more	260	133	224	244.1	270.8
<b>Millions of Current Dollars</b>					
Residential buildings	182,856	210,455	238,874	236,597	246,899
New housing units	127,987	144,071	167,919	162,898	176,378
1 unit .....	108,737	133,282	153,838	145,009	156,510
2 or more units .....	19,250	10,788	14,081	17,889	19,868
Improvements .....	54,869	66,384	70,955	73,699	N/A

SOURCE: BUREAU OF THE CENSUS

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This one looks ok

	Option	Preliminary revenue cost: 1999-2003 (\$ billions)	Preliminary revenue cost per ton of carbon avoided	Comments
<b>BUILDINGS</b>				
1.	<b>Energy efficient building equipment.</b> A 20 percent tax credit for the purchase of certain highly efficient equipment for residential and commercial buildings, such as electric heat pump water heaters, fuel cells for power generation, natural gas heat pumps and electric heat pumps. Credit expires 2003.	0.5	10 -20	Complements initiative to attract attention to energy star labels. Barriers to these investments (information, financing) addressed through other programs. May be inefficient because the government is picking the technology winners. Subsidies may be supporting technologies that turn out to be losers and may crowd out other potentially more energy efficient technologies.
2.	<b>Energy efficient homes.</b> A tax credit (\$1,000) would be provided for the purchase of highly energy efficient new homes. Credit expires 2003.	0.5 (if given to all energy star homes)	N.A.	Would encourage the purchase of new energy efficient houses. The proposal does not address the largest housing related energy problem -- old homes are inefficient.' This proposal would be difficult to administer as there presently is no federal program that certifies highly energy efficient new homes. Absent a high standard for energy efficiency, the credit would be largely a windfall.
<b>TRANSPORTATION</b>				
3.	<b>Fuel efficient vehicles.</b> A \$4,000 tax credit for the purchase of high fuel economy vehicles with 3 times the 1997 class average, and \$2,000 for vehicles achieving twice the 1997 class average. Credit phases down beginning in 2003 and phases out in 2011 for 3x vehicles (2003/2006 for 2x vehicles).	0.2	110 - 900	Supports commercialization of vehicles under development in the Partnership for a New Generation of Vehicles. Most eligible vehicles may be foreign and purchased by high-income persons.

4.	<u>Transit and vanpool benefits.</u> The tax treatment of parking, transit, and vanpool benefits would be equalized by allowing employers to offer employees transit and vanpool benefits in lieu of compensation.	0.1	145	Allows employers to provide tax free transit and vanpool benefits in lieu of compensation, a preference now available to parking benefits. Expands the difference in tax treatment of different forms of compensation.
4a	Raise the transit pass/vanpool limit to parking limit	*		
<b>INDUSTRY</b>				
5.	<u>Combined heat and power systems.</u> A 10% tax credit for investments in combined heat and power systems. Credit expires in 2003.	0.6	100	Could accelerate the adoption of this well-established technology. The definition of eligible equipment would have to be refined, particularly in view of past history of problems in defining cogeneration. Installation of this equipment is already economic in many situations; the credit may merely provide a windfall for those already willing and able to install this equipment.
<b>RENEWABLE ENERGY</b>				
6.	<u>Electricity production from wind and biomass.</u> Extension of the present 1.5 cents per kWh tax credit for electricity production from wind and biomass for 5 years (i.e., production from facilities placed in service before July 1, 2004).	0.2	430	Supports commitment to renewables. Limited emissions reduction potential since wind power is limited geographically and is not continuously available.
7.	<u>Rooftop solar systems.</u> A 15 percent credit for the purchase of rooftop solar systems. Maximum credit would be \$1,000 for thermal and \$2000 for photovoltaic systems. Excludes hot water heaters for swimming pools. Credit expires 2003.	0.1	200 - 300	Helps to implement the President's Million Solar Roofs initiative. Will be purchased primarily by high-income households.

8.	<b>Methane recovery.</b> A production tax credit for electricity or energy produced from qualifying methane sources, such as certain landfills and coal mines. Restricted to third-party sales. The credit rate would be \$1.10 per mil. Btu. Credit expires 2003.	0.7	15 - 50	Would reduce emissions of methane, a potent greenhouse gas. Administration opposed extension of the section 29 credit.
<b>TOTAL</b>		2.9		
To make up the gap:				
A.	Add items to option 1 (energy efficient building equipment)			
B.	10% credit for PFC recycling equipment installed in semiconductor fabrication facilities.	*	under 5	Would reduce emissions of PFCs in the semiconductor industry. May be difficult to justify such a narrowly targeted credit.
C.	10% credit for certain leaky electric power equipment (dual pressure power circuit breakers manufactured before 1986)	*	under 5	Would reduce emissions of sulfur hexafluoride. Difficult to monitor the destruction of old equipment. If old equipment is resold, emissions reductions may not be attained.
D.	30% investment credit for small wind turbines (up to 40 kW). Credit phases down in 2006 and out in 2008.	*	230	Negligible effect on greenhouse gas emissions. Unnecessary subsidy for a growing industry -- industry projects annual growth of 18% without the subsidy.

N.A. means not available.

\* means less than \$50 million.

December 19, 1997