Harnessing Individual Behavior to Address Climate Change: Options for Congress

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How should Congress engage individuals in the effort to address climate change?
Overview

I. Two ways to engage individuals

II. Why engage individuals

III. Opportunities to engage individuals in federal legislation
I. Two ways to engage individuals

- Individual as citizen
- Individual as consumer
Citizen participation in U.S. Environmental Laws

- Public notice of permit applications
- Public access to government files
- Public disclosure of information about formulation of policies and regulations
- Public disclosure of environmental information about certain facilities
- Citizen suits/judicial review of government decisions
What citizen participation achieves

- Improves quality, credibility, and responsiveness of government decisions
- Increases likelihood that government will follow law
- Reduces risk of regulatory capture
Individual as consumer

- Individuals contribute directly to environmental problems and should therefore be encouraged to reduce those problems.

- Contrast citizen participation, where “polluter” is ordinarily a corporation or other entity.
Citizen and consumer roles should be mutually reinforcing

- Actions in one role likely to lead to actions in other role
- Two roles together likely to be more effective than either alone
But: allocation of responsibility is sensitive issue
Suggested solution: shared responsibility

- Corporations and other entities make many decisions that individuals do not or cannot control
- Individuals have responsibility for environmental impact of their consumption decisions when they have real choices (as they often do); number, attractiveness, and awareness of those choices should be increased
II. Why engage individuals in climate change legislation?

- Size of needed emissions reductions; full national effort required
- Individuals are significant contributors (1/3 of U.S. greenhouse gas emissions, according to Vandenberg & Steinemann)
- No government program (other than carbon or fossil fuel tax) is likely to capture all of the various ways individuals and groups could reduce greenhouse gas emissions

![Fuel Fights!](image)
What if rest of world consumed energy at U.S. per capita levels?

Figure 1. Primary energy consumption per capita, relative to the US.
Source: IGU/IEA
Energy Efficiency & Conservation

- Existing residential and commercial buildings are responsible for roughly 40% of U.S. greenhouse gas emissions.
- Efficiency mandates for new buildings won’t reach them.
- Reductions from this source can only be achieved by motivating individual building owners.
Ethical/religious foundation

- Climate change hurts other humans, and particularly those who are most vulnerable
- Future generations matter
- Intra-generational equity matters
- A world we did not create is, in some sense, sacred
III. Opportunities to engage individuals in climate change legislation
A. Findings and Purposes

- Congress should include the following as findings/purposes:
  - Full engagement of the citizenry in the national climate change effort is necessary and important.
  - Efforts to mitigate climate change can create jobs, foster the development of new technology, reduce other air pollutants, reduce the vulnerability of individuals and businesses to high and fluctuating energy prices, and improve domestic security.
  - Individual effort and engagement are needed to make the legislation work more effectively, quickly, and cheaply.
B. Targets & timetables

Legislation should require EPA to translate overall targets/timetables into more specific timetables for transportation, industrial, commercial, residential (and electricity) sectors, and by region, etc.
- Set target/timetable for stabilizing per capita energy consumption (growth rate=0.3%/year)
- Encourage/direct states to set overall per capita targets and timetables (per capita energy use in Texas is twice that in New York or California)
- Set target/timetable for stabilizing overall energy consumption
3. Consumer information

- A variety of products are labeled with information on energy use, including the estimated annual operating cost of the particular product and the range of annual estimated operating cost for such products.

- Congress could broaden these public information or labeling requirements to include, for example, the estimated monthly or annual energy costs of operating new or existing residential and commercial buildings.

- Congress could even require EPA to publish information on the energy or carbon footprint of individuals.
4. Public information on available choices

- Congress could direct EPA or another agency to make publicly available, in a variety of contexts, information about how individuals can reduce their energy use.

- Congress could also direct EPA or another agency to provide public information about economic, social, and environmental effects of making (and not making) appropriate choices.
Congress could also direct the publication of comparative information about the energy efficiency and operating cost of various appliances and types of equipment.
5. Increasing consumer choices

- Congress could:
  - Require net metering at the national level
  - Create programs that would make it easier for homeowners/business owners to install energy efficiency upgrades
  - Enhance recycling/recyclability/reuse of products
6. Public information on climate change effects

- Public information about the impact of climate change on U.S. citizens is a necessary part of any national climate change program, particularly because climate change is already underway.
7. Incentives for Individual Action

- Tax incentives.
- Distribution of allowances.
- Ability to generate and trade offset allowances.
- Distribution of proceeds from sale of allowances.
- Other incentives
8. Targeted programs

▫ For existing residential and commercial buildings:
 ▫ Energy auditors
 ▫ Public/private training partnerships
 ▫ Creation and use of appropriate financing mechanisms

Imagine: 1 million retrofits a year!
9. Role of states

- Congress could require or allow states to adopt individual or public engagement plans.
- Such plans would allow particular states to tailor individual engagement efforts to their own economic, geographic, and demographic situation.
10. Evaluation & improvement

- Congress should give an appropriate federal agency (probably EPA) broad responsibility for continually finding better and more effective ways to inform individuals of the greenhouse gas effects of their choices, for developing and recommending more effective incentives, and for conducting ongoing research on the effectiveness of their efforts.

- This evaluation would best be conducted in cooperation with the National Academy of Sciences, and should include evidence from the United States and other countries.
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