## Summary of Expected Tax Losses Resulting from S. 2095
## Section 45(c) , "Credits for Electricity Produced from Certain Renewable Resources"

(bill as published 02.12.04)

### I. Subsidy Total

| | Revenue Loss ($Millions) | Outlay Equivalent ($Millions) | Comments |
|---|---|---|---|
| Categories clearly defined in bill | 1,460 | 2,270 | See note 1 |
| Categories likely in bill, but subject to some degree c uncertainty | 876 | 1,362 | See note 2. |
| **Total** | **2,335** | **3,632** | |

**Because EIA growth projections do not assume new tax credits, actual capacity (and resultant subsidies) are likely to be higher than what is shown here. Furthermore, important categories, such as electricity produced from hazardous waste combustion, could not be estimated.**

### II. Summary of Component Estimates by Energy Source

| | Revenue Loss ($Millions) | Outlay Equivalent ($Millions) | Comments |
|---|---|---|---|
| **A. Geothermal** | 206 | 320 | New capacity only |
| **B. "Municipal" Solid Wastes** | | | New capacity only |
| 1. All categories, EIA baseline growth scenario | 64 | 100 | |
| 2. Projections based on landfill inventory | | | Landfills not eligible |
| Low | - | - | in S. 2095 |
| Medium | - | - | |
| High | - | - | |
| 3. Sub-categories not able to be estimated | | | See note 3 |
| -MSW incineration, combustion of waste materials (e.g., tires) in cement kilns, combustion of hazardous waste for energy, combustion of industrial gases or other industrial by-products. | | | |
| **C. Wood and Other Biomass** | | | Existing capacity eligible |
| 1. Dedicated Electric Power | 664 | 1,033 | See note 4. |
| 2. Biomass co-firing | | | |
| If all co-firing eligible | 876 | 1,362 | See notes 2 and 5 |
| If biomass >50% input Btus only | 754 | 1,173 | |
| If biomass >75% input Btus only | 233 | 362 | |
| **D. Solar** | | | New capacity only |
| 1. Thermal | 25 | 39 | |
| 2. Photovoltaic | 16 | 24 | |
| Total Solar | 41 | 63 | |
| **E. Wind** | 484 | 753 | New capacity only |
| **F. Small Irrigation power** | Not estimated | Not estimated | New capacity only |

**Notes:**

(1) Revenue loss estimates measure reductions in tax revenues collected by the federal government. Outlay equivalent metrics estimate the *value* to recipient industries, which is higher than the tax loss since the tax breaks are themselves tax-exempt. Outlay equivalent values used in these estimates are based on a ratio of (2.8/1.8), where 2.8 equals EIA's estimate of the value of tax breaks to wind power from the production tax credit and 1.8 equals the direct tax reduction. (See EIA, *Assumptions for the Annual Energy Outlook 2003* , January 2003, p. 125). This ratio was assumed to apply equally to all energy sources.

(2) Language in S. 2095 appears to leave the tax credits wide open to any use of biomass inputs for the production of electricity, even if other fuels are also used. Thus, the totals assume that 100% of existing biomass generation would get the credits. Such an interpretration is in line with what Washington insiders have told me that inclusion of certain large biomass users (such as paper mills) was intended by Congressional sponsors. See detailed worksheets on biomass for more information.

(3) S. 2095 definition of "municipal solid waste" is actually the defintion for "solid waste." As such, it includes a range of materials, such as hazardous waste and industrial gases, that one would never see in the town dump.

(4) Could not break-out poultry wastes; small portion of total may therefore double-count subsidies agribusiness already gets under current law. Errors unlikely to be substantial, however.

(5) Values shown represent the *incremental* benefits of S. 2095 to wind power and animal waste. Tax credits accessed by existing facilities under the current law have been excluded.