

Global Warming Example

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|--------------------------------------|--------|---------|
| Annual CV of the Energy Tax | \$ 135 | cv |
| Annual Revenue from the Tax | \$ 120 | rev |
| Annual Damage from Warming (billion) | \$ 500 | benefit |
| Years Until Damage Begins | \$ 40 | delay |

Annual Net Cost of the Tax \$ 15 cost = cv - rev

Interest Rate

| | 4% | 5% | 6% | |
|-----------------------------------|-----------|-----------|----------|-----------------------|
| PV of costs in year 0 | \$ 375 | \$ 300 | \$ 250 | pvc = cost/r |
| PV of benefits in year 40 | \$ 12,500 | \$ 10,000 | \$ 8,333 | lrb = benefit/r |
| PV of benefits in year 0 | \$ 2,604 | \$ 1,420 | \$ 810 | pvb = lrb/(1+r)^delay |
| NPV of benefits - costs in year 0 | \$ 2,229 | \$ 1,120 | \$ 560 | net = pvb - pvc |