

National Teleconference Program  
Section of Environment, Energy & Resources  
American Bar Association  
December 15, 2004

---

CHIEF FEDERAL BUSINESS TAX  
INCENTIVES FOR RENEWABLE  
ENERGY PROJECTS AND THE  
REDUCTION FOR STATE  
ASSISTANCE

---

Edwin T.C. Ing  
2121 K Street, N.W.  
Suite 800  
Washington, D.C. 20037  
202-457-6630

# Chief Federal Business Tax Incentives for Renewable Energy Projects

---

## OVERVIEW

1. Accelerated depreciation. IRC §168.
2. Investment tax credit. IRC §48.
3. Production tax credit. IRC §45.

(To remain within the 15 minute time limit, this presentation concentrates on the §45 production tax credit with brief mention of the other two federal tax incentives. Section 45 covers the widest range of renewable energy resources and it has proven to be more effective than the §45 investment credit. The presentation does not include the §29 credit, because new projects cannot qualify for this credit; the eligibility period has expired.)

# §168 Accelerated Depreciation

---

1. 5-year recovery period.
2. 200% declining balance method, switching to straight line in later years.
3. For solar, geothermal, wind, and certain biomass property.  
See statutory categories in IRC §168(e)(3)(B)(vi).
4. Anti-double dipping rule:  
No depreciation deduction for property acquired with a tax-free grant.

# §48 Investment Credit

---

1. 10% credit for qualified investment in:
  - A. Solar equipment, and
  - B. Geothermal equipment.
2. Anti-double dipping rule:
  - A. For taxable and nontaxable government grants.
  - B. For tax-exempt bond financing.
  - C. For subsidized government energy financing.
  - D. For other federal credits.

# §45 Production Credit

---

## COVERAGE

1. Electricity produced from:
  - A. Wind energy.
  - B. Closed-loop biomass, even using coal and other biomass for co-firing.
  - C. Open-loop biomass.
    - (1) Agricultural livestock waste, and
    - (2) Solid cellulose waste material from:
      - (a) Certain forestry resources,
      - (b) Wood waste, and
      - (c) Agricultural waste.
  - D. Geothermal energy.
  - E. Solar energy.
  - F. Small irrigation power.
  - G. Municipal solid waste, i.e., trash combustion and landfill gas.
2. Refined coal product, viz., coal or carbon fly ash product which
  - A. Has 20% less emission, and
  - B. Costs 50% more than the feedstock.

# §45 Production Credit

---

## AMOUNT OF CREDIT

1. 1.5¢ per kilowatt hour of electricity.
2. Credit is annually adjusted for inflation.
  - In 2004 the credit is 1.8¢ per kilowatt hour.
3. Different credit rate applies to certain resources:
  - A. Open-loop biomass, small irrigation, landfill gas, and trash combustion get half the credit rate.
  - B. Refined coal products get \$4.375 credit per ton.

# §45 Production Credit

---

## DURATION

1. Credit is earned for production in the first 10 years, starting from the facility's original placement-in-service date.
2. Shorter period for certain resources:  
Credit is earned for production in the first 5 years for open-loop biomass, small irrigation, geothermal, solar, landfill gas, and trash combustion facilities.
3. Change of facility's ownership will not alter the coverage period except for certain wind projects.

# §45 Production Credit

---

## REQUIREMENTS FOR ELECTRICITY PRODUCTION

1. Taxpayer must produce the electricity:
  - A. From an eligible resource,
  - B. At a qualified facility,
    - (1) Placed in service within the eligibility period.
    - (2) Owned by the taxpayer.
2. Taxpayer must sell the electricity to unrelated person.
3. Exception for lessee/operator to claim credit:
  - A. For open-loop biomass facilities, and
  - B. For certain closed-loop biomass facilities.

# §45 Production Credit

---

## REQUIREMENTS FOR REFINED COAL PRODUCTS

1. Taxpayer must produce the product at a facility,  
-- Placed in service within the eligibility period.
2. Taxpayer must sell the product to unrelated person.
3. With the intention that the product will be used for steam production.

# §45 Production Credit

---

## ELIGIBILITY PERIOD

1. A qualified facility must be originally placed in service within the statutory eligibility period:
  - A. Before January 1, 2008 for refined coal product facility.
  - B. Before January 1, 2006 for the other resources.
2. Congress first enacted the §45 credit in 1992.
3. Congress has extended the credit's eligibility period three times, twice adding other types of energy.

# §45 Production Credit

---

## UTILIZATION OF CREDIT

1. Regular tax liability:
  - A. Credit offsets first \$25,000 and 75% over that.
  - B. Unused credit has 1-year carryback and 20 year carryforward.
2. Alternative minimum tax liability (AMT):
  - Credits earned within the facility's first 4 years of production can offset AMT liability.
3. Passive activities limitations apply.
4. At-risk limitation applies.
5. Utility companies can qualify for credit.

# §45 Production Credit

---

## CREDIT PHASE OUT

1. Credit is intended to help create a price floor.
2. Credit is phased out if the national average price of electricity from the resource reaches an economically self-sustaining level.
3. In 2004 the threshold phase-out level is:
  - A. 9.8¢ per kilowatt hour of electricity.
  - B. \$8.75 per ton of refined coal product.

# §45 Production Credit

---

## ANTI-DOUBLE DIPPING RULES

1. Credit is reduced, but not more than half, for project acquisition and construction costs covered by:
  - A. Taxable and nontaxable government grants.
  - B. Tax-exempt bond financing.
  - C. Subsidized government energy financing.
  - D. Other credits.
2. Purpose is to prevent inefficient projects that rely solely on government assistance.
3. Certain closed-loop biomass projects are excepted.

# §45 Production Credit

---

## EXAMPLES OF STATE INCENTIVES

1. Renewable energy production tax credit.
2. Green energy credit.
3. Sales and use tax exemption or refund.
4. Price support or supplemental production payment.
5. Grant for project's capital costs.
6. Grant for project's operation and maintenance costs.
7. Low interest or no interest loan.
8. Loan guarantee.