

INCENTIVES USING LANDFILLS FOR CLEAN ENERGY PRODUCTION

PAYMENT INCENTIVES

Renewable Energy Production Incentive (REPI) – provides financial incentive payments for electricity produced and sold by new qualifying renewable energy generation facilities, including landfill gas. Qualifying facilities are eligible for annual incentive payments of 1.5 cents per kilowatt-hour (1993 dollars and indexed for inflation) for the first ten year period of their operation, subject to the availability of annual appropriations in each Federal fiscal year of operation. The REPI authority was reauthorized on August 8, 2005 under Title II Sec. 202 of the Energy Policy Act of 2005 (Pub. Law 109-58). The resulting REPI statute may be found at 42 U.S.C. 13317. The REPI program is managed by the Department of Energy. The regulations for the administration of the REPI program are contained in Title 10 to the Code of Federal Regulations, Part 451 (10 CFR 451).

- **Amount:** 1.5 cents per kWh (indexed for inflation) (10 years)
- **Eligible Technologies:** Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric, Livestock Methane, Tidal Energy, Wave Energy, Ocean Thermal, Fuel Cells using Renewable Fuels
- **Payment Period:** A qualified renewable energy facility may receive payments under this section for a 10-fiscal year period. Such period shall begin with the fiscal year in which the electricity was generated. Payments may be made under this section only for electricity generated from a qualified renewable energy facility first used before October 1, 2016. However, open-loop biomass, geothermal, small irrigation hydro, landfill gas, and municipal solid waste combustion facilities placed into service after 10/22/2004 and before enactment of the Energy Policy Act of 2005 (8/8/2005) are eligible for the credit for a five-year period.
- **Sectors:** A qualified renewable energy facility is a facility which is owned by a not-for-profit electric cooperative, a public utility described in section 115 of the Internal Revenue Code of 1986 [26 USCS § 115], a State, Commonwealth, territory, or possession of the United States, or the District of Columbia, or a political subdivision thereof, an Indian tribal government or subdivision thereof, or a Native Corporation (as defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602)), and which generates electric energy for sale in, or affecting, interstate commerce using solar, wind, biomass, landfill gas, livestock methane, ocean (including tidal, wave, current, and thermal), or geothermal energy, except that the burning of municipal solid waste shall not be treated as using biomass energy.

Rural and Remote Communities Electrification Grants – authorizes grants to use renewable energy sources. This program is administered by the Department of Agriculture's Rural Utilities Service. **Section 209** of the Energy Policy Act of 2005 (Pub. Law 109-58).

- **Amount and Payment Period:** The grants are authorized to be appropriated based at \$20,000,000 for each fiscal year 2006-2012.
- **Eligible Technologies:** Wind; ocean waves; biomass; solar landfill gas; incremental hydropower; livestock methane; or geothermal energy for the purpose of increasing energy efficiency, siting or upgrading transmission and distribution lines serving rural areas, or providing or modernizing electric generation facilities that serve rural areas. Preference to be given to renewable energy facilities, including Landfill Gas to Energy (LFGTE) facilities.
- **Sectors:** local government or municipality, peoples' utility district, irrigation district, and cooperative, nonprofit, or limited-dividend association in a rural area

TAX CREDITS

Renewable Electricity Production Tax Credit (REPC) –a per kilowatt-hour tax credit for electricity generated by qualified energy resources.

- **Amount:** 1.9¢/kWh for wind, geothermal, closed-loop biomass; 1.0¢/kWh for others. Applies to first 10 years of operation.
- **Eligible Technologies:** wind closed-loop biomass open-loop biomass geothermal energy small irrigation power (150 kW - 5 MW) municipal solid waste landfill gas refined coal hydropower Indian coal
- **Payment Period:** The Energy Policy Act of 2005 modified the credit and extended it through December 31, 2007. In December 2006, the credit was extended for yet another year (through December 31, 2008) by Section 207 of the Tax Relief and Health Care Act of 2006 (H.R. 6111).
- **Sectors:** Commercial, Industrial

BONDS

Clean Renewable Energy Bonds – Electric cooperatives interested in developing renewable energy generation projects have new tax-credit bonds available as of January 1, 2006. The Clean Renewable Energy Bonds (CREBs) program offers electric cooperatives the equivalent of interest-free loans to finance qualified energy projects. The bond program is comparable to the production tax credit incentive (PTC) currently available to private developers and investor-owned utilities. With respect to a PTC, however, benefits are received after a facility is completed and electricity is generated. The CREBs program, in contrast, provides financing to encourage development of renewable energy generation projects.

- A CREB is a tax credit bond. As such, the bond issuer does not make interest payments to the bondholder, as is done with a conventional bond. Instead, a tax credit from the federal government is provided to the bondholder.
- The U.S. Treasury Department sets the rate of the tax credit daily. When the bond is purchased, the bondholder locks in the credit rate for the term of the bond. The tax credit accrues quarterly, and the bondholder can apply that credit against its income tax liability.

- Co-ops can reimburse themselves for costs once the bonds are issued, but the resolution must be in place first. After a CREB is issued for a qualified project, 95 percent of the proceeds must be spent within five years for that project.
 - <http://www.cobank.com/services/CREBS/CREBbrochure.pdf>
- On November 20th, 2006 the IRS announced that it allocated \$800 million in "tax-credit" bonds for a total of 610 renewable energy projects to be located throughout the United States.
 - The new bond allocations range from \$23,000 to \$31 million and are set aside for 434 solar energy facilities, 112 wind power installations, 36 landfill gas facilities, 14 hydropower plants, 13 biomass power plants, and one refined coal production facility.
 - The IRS had to select the projects from among 709 applications for 786 projects, for which the lending authorities requested a total of \$2.6 billion in bond allocations.
 - http://www.eere.energy.gov/news/news_detail.cfm/news_id=10423

LOAN GUARANTEES

Department of Energy – DOE's Loan Guarantee Program Office released a Solicitation Announcement for projects eligible to receive up to \$2 billion in loan guarantees under Title XVII of the Energy Policy Act of 2005. To be eligible for this solicitation, early commercial projects for vehicles, homes or businesses must use new or significantly improved technologies in biomass; hydrogen; solar; wind and hydropower; fossil energy coal; carbon sequestration practices and technologies; efficient electricity transmission and delivery and energy reliability; alternative fuel vehicles; industrial energy efficiency projects; and pollution control equipment.

Small Business Administration – The U.S. Small Business Administration's Energy and Conservation Loan program offers loans for small businesses engaged in the design, engineering, manufacturing, distribution, marketing, installing, or servicing of energy devices or techniques that conserve U.S. energy resources.

- Terms for working capital are 7 years; for equipment 10 years; and for buildings 25 years. The interest rate usually cannot exceed 2.75 percent over the prime lending rate, although loans under \$50,000 may have higher rates.
- The SBA will guarantee up to 80 percent of a loan less than \$100,000, and 75 percent of a loan more than \$100,000. SBA's share of a loan cannot exceed \$750,000 to any business.
- http://www.repp.org/repp_pubs/articles/mesaDSol/05SelFin.htm

OTHER RELEVANT PROGRAMS

Federal Purchase Requirement – Congress has mandated that the Federal government purchase renewable energy of no less than 7.5% of total power consumption by 2013. It is 3% in 2007 through 2009 and will be 5% in 2010 through 2012. In 2004, the Federal government used 42,680 GWh with 1,067 GWh coming from renewable sources.

- <http://www.oceanrenewable.com/2005/08/02/orec-summary-of-the-energy-bill/>

Chicago Climate Exchange Offset Projects – Tradable carbon dioxide emission Offsets can be registered and traded in Chicago Climate Exchange by both Offset Providers and Offset Aggregators.

- An Offset Provider is an owner of an offset project or projects that registers those offsets directly on the exchange, and sells offsets on its own behalf.
- An Offset Aggregator is an entity that serves as the administrative representative, on behalf of offset project owners, of multiple offset-generating projects.
- The terms of the business and legal relationships between Aggregators and Project Owners are left to the discretion of those parties.
 - www.chicagoclimatex.com
- CCX has developed standardized rules for issuing carbon credits for the following types of offset projects:
 - Methane destruction
 - Initiating and operating landfill methane collection and destruction in the United States, Canada, Mexico, Brazil and other countries as applicable; Initiating methane collection and destruction systems at livestock operations
 - Renewable energy:
 - Displacement of CO2 emissions by eligible renewable energy facilities
 - Clean Development Mechanism Eligible Projects
 - Acceptance of Certified Emissions Reductions (CERs) from the Clean Development Mechanism (CDM)
 - Agricultural practices:
 - Committing land to continuous no-till, strip-till, or ridge-till cropping in the central United States and other regions or countries as applicable; Initiating grass cover planting in specified states, counties and parishes in the United States
 - Forestry practices:
 - Initiating forestation and forest enrichment projects; Initiating combined forestation and forest conservation projects in Brazil and Mexico
 - Other GHG emission mitigation in Brazil:
 - Fuel switching; Renewable energy generation from solar, wind, small hydroelectric and biomass systems

***Toxicological &
Environmental
Associates, Inc.***

This fact sheet prepared by Yarrow Etheredge (504)710-5559.

Offsets and Early Action Credits Issued as of February 26, 2007

(All figures presented in metric tons of CO2)

Vintage	2003	2004	2005	2006
Offsets Issued	2,074,600	2,259,000	3,202,400	3,811,400
Early Action Credits	-	114,200	17,200	-
Total	2,074,600	2,373,200	3,219,600	3,811,400

CCX Registered and Verified Offset Projects

Offset Provider/Aggregator	Project Types	Locations
C-Green Aggregator Ltd	Agricultural Soil	Saskatchewan
Carbon Resource Management	Renewable Energy - Wind	China
Commonwealth Resource Management Corporation	Landfill Methane	Massachusetts, New Hampshire
Environmental Carbon Credit Pool LLC	Agricultural Methane	California, Georgia, Indiana, New York
Environmental Credit Corp.	Agricultural Methane	California, Indiana, Minnesota, New York, Pennsylvania, Washington, Wisconsin
First Capitol Risk Management	Agricultural Methane and Renewable Energy - Biogas	Illinois
Gallo Cattle Company	Agricultural Methane	California
Granger Holdings LLC	Landfill Methane	Alabama
Grey K Environmental Fund LP	Fuel Switching	China
Grey K Environmental Offshore Fund Ltd.	Fuel Switching	China
Iowa Farm Bureau	Agricultural Methane	Illinois, Wisconsin
Iowa Farm Bureau	Agricultural Soil	Iowa, Kansas, Kentucky, Missouri, Nebraska, Wisconsin
Kentucky Corn Growers Association	Agricultural Soil Offset	Kentucky
Lancaster County Solid Waste Management Authority	Landfill Methane	Pennsylvania
Lugar Stock Farm Inc	Forestry	Indiana
MGM International	Waste Disposal	Mexico
North Dakota Farmers Union	Agricultural Soil	North Dakota
Precious Woods Holdings	Forestry	Costa Rica
Premium Standard Farms	Agricultural Methane	Texas
Swiss Re Financial Products Corporation	Fuel Switching	California, Texas
Waste Management	Landfill Methane	Arkansas, Illinois, Indiana, Maine