

**REPORT OF THE
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**REPORT ON THE FUNDING
SOURCES AVAILABLE TO
SMALL BUSINESSES FOR
SCRAP TIRE PROCESSES**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 30

**COMMONWEALTH OF VIRGINIA
RICHMOND
2000**



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James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

November 22, 1999

MEMORANDUM:

TO: The Honorable James S. Gilmore, III
Governor of the Commonwealth

The Members of the General Assembly of Virginia

FROM: Dennis H. Treacy
Virginia Department of Environmental Quality

RE: REPORT ON THE FUNDING SOURCES AVAILABLE TO SMALL
BUSINESSES FOR SCRAP TIRE PROCESSES

As directed by House Joint Resolution No. 536 (1999), we offer our report on the funding sources available to small businesses to assist them in developing technologies for the handling of Virginia waste tires.

REPORT ON THE FUNDING SOURCES AVAILABLE TO SMALL BUSINESSES FOR SCRAP TIRE PROCESSES

INTRODUCTION

House Joint Resolution (HJR) No. 536 enacted by the 1999 General Assembly (Appendix 1) acknowledged the problems dealing with waste vehicle tires in Virginia and identified one management option, whole tire incineration, which may provide cost effective methods to beneficially use those tires.

HJR No. 536 directed the Department of Environmental Quality (DEQ), in cooperation with the Department of Business Assistance (DBA), to:

1. identify funding sources available to small businesses to assist them in developing technologies to eliminate the scrap tire problem in Virginia, and
2. make recommendations concerning the creation of additional and/or the expansion of existing funding sources.

STUDY FINDINGS – Resources Currently Available

- A. The Virginia Waste Tire Tax and Trust Fund, the Waste Tire Management Plan, and the Waste Tire End User Reimbursement Program

Virginia, like many other states, has a funding source specifically designed for waste tire management. A fifty-cent (\$0.50) tax is charged on the retail sale of all new vehicular tires sold in the Commonwealth. The tax proceeds are deposited in the Virginia Waste Tire Trust Fund (WTTF), where the principal and accrued interest are dedicated to pay the costs of implementing the waste tire management plan authorized by the Code of Virginia and developed by the Department of Environmental Quality.

The enabling legislation directed DEQ to use the funds to develop and implement a plan for the management of all waste tires in Virginia. The plan, the Virginia Waste Tire Management Plan, was adopted in 1994 and remains the guiding document for uses of the WTTF assets.

The major element of the plan, the Waste Tire End User Reimbursement (EUR) Program, provides direct payments (reimbursements) to the people and firms (end users)

that actually beneficially use Virginia waste tire material through existing or new technologies. Since 1995, the EUR Program has been responsible for the beneficial use of 38,560,500 Virginia waste tires at a cost of \$11,032,900 to the WTTF.

Some end uses eligible for funding include:

- **Tire-derived fuel (tire material burned for energy recovery)**
 - **whole tire incineration**
 - **shredded tire fuel supplement**
 - **pyrolysis**
- **Recycled products**
 - **rubber mats, blasting mats**
 - **pavement sealers**
 - **playground material and sports surfaces**
 - **animal feed buckets and watering troughs**
- **Civil engineering uses**
 - **septic drainfield construction (aggregate replacement)**
 - **roadway fills and sub-base**
 - **landfill drainage media, lightweight fill and roadbase material**
 - **alternative daily cover in landfills**

Since 1995, Virginia tire-derived fuel (whole tire or tire shred) has been used in 13 facilities, including industrial boilers, cement kilns, electric utility boilers, waste-to-energy incinerators, and dedicated tire-to-energy plants. See Appendix 2 for a list of these facilities that have utilized 11,148,100 Virginia tires to date.

The Virginia Waste Tire Management Program has contributed significantly to the waste tire management infrastructure in the Commonwealth. Currently there are 50 registered waste tire haulers, 14 permitted processors, 88 public collection centers, and 50 end users. Using this infrastructure, 426 of the original 731 waste tire piles have been cleaned up in the Commonwealth. The End User Reimbursement Program provides the economic basis for the beneficial use of Virginia waste tire material (up to \$50 per ton paid to the end user for use of our waste tire material), and provides a continuing incentive for the marketplace to seek out Virginia waste tires.

B. Other Funding Sources

The following list identifies the resources available to small businesses seeking financial assistance for a new or expanding waste tire operation in the Commonwealth:

Commonwealth of Virginia Resources

- 1. Virginia Department of Business Assistance (VDBA)
707 East Main Street, Suite 300
Richmond, Virginia 23219
(804) 371-8200
WebPage: www.dba.state.va.us**
 - a. Tax Exempt Industrial Development Bonds: Long term industrial development bonds to support economic development projects across the Commonwealth. Funds used for the acquisition, construction and equipping of manufacturing facilities or qualified "exempt" projects such as solid waste disposal facilities. Maximum funding of \$10,000,000 for manufacturing facilities; no maximum for exempt facility projects.**
 - b. Umbrella Bond Program: Provides a cost-effective means for small businesses to access the low-interest, tax-exempt bond market to finance their manufacturing projects. Through the program, industrial development bonds are brought under an umbrella of standard documentation and uniform credit enhancement, and the bonds are sold through the Virginia Small Business Financing Authority's (VSBFA) placement agent. Maximum funding of \$10,000,000 for approved projects.**
 - c. Loan Guaranty Program: Increases the availability of short-term working capital for small businesses by providing a guaranty of a bank loan or line of credit to finance short-term assets. Maximum guaranty of \$250,000 or 50% of loan value.**
 - d. Virginia Capital Access Program: Encourages banks to make loans to borrowers with riskier credit profiles for working capital, expansion, equipment, and most other business needs. Maximum enrolled loan amount is \$250,000 for approved projects.**

2. **Virginia Economic Development Partnership (VEDP)**
P.O. Box 798
Richmond, Virginia 23218-0798
(804) 371-8108
Webpage: www.YesVirginia.org
 - a. **Governor's Opportunity Fund: Provides funding for projects that create new jobs and investment in accordance with criteria established by legislation. Funding is based upon locality population and ranges from \$2,500,000 to \$10,000,000 for approved projects.**
 - b. **Growth-Promoting Incentives: Virginia offers a range of incentives and services to promote business growth and reduce the costs of opening and expanding a business facility within the Commonwealth. Incentives include financial aid assistance, infrastructure development grants, customized training, tax credits and exemptions, and technical support programs. Value of these incentives increase with the scope of the business.**

3. **Virginia Center for Innovative Technology (CIT)**
CIT Building, Suite 600
2214 Rock Hill Road
Herndon, Virginia 20170
(703) 689-3000
Webpage: www.cit.org
 - a. **CIT Technology Awards Program: Provides assistance in developing or improving a technology-based product or process. CIT assists in linking technical expertise with the business partner to offset investment risks, and to facilitate jobs retention and jobs creation.**
 - b. **Federal Grants Application Assistance Program: CIT's experience in helping small businesses get off the ground provides quick access to applications for Small Business Innovative Research (SBIR) and related grants. SBIR funding operates in two phases: Phase 1 provides up to \$70,000 for a six-month study of the scientific merit and technical feasibility of the project. Phase 2 provides up to \$250,000 for a one to two year effort to commercialize the project. Additional funding is then sought from venture capitalists, third party financing or industry sources.**

- c. **Venture Capital Program: CIT provides assistance in preparing the financial business plan for submittal to the venture capital systems. CIT provides a list of venture capitalists that invest in Virginia companies, and helps coordinate meetings for presenting the business plan to the investment groups. Venture capital investment in these businesses depends upon the capital needs and risk associated with the investment.**

4. Virginia localities

- a. **Virginia Coalfield Economic Development Authority (VCEDA)
P.O. Box 1060
Lebanon, Virginia 24266
(540) 889-0381**

Revolving loan fund for projects in the counties of Buchanan, Dickenson, Lee, Russell, Scott, Tazewell, Wise and the City of Norton. Funds for the program are estimated to exceed \$12,000,000. Available funds depend on the location of the project and the loan funds available in the locality's account.

- b. **USDA/Rural Development Business and Industrial
Loan Guarantee Program
1606 Santa Rosa Road
Culpeper Building, Suite 238
Richmond, Virginia 23229
(804) 287-1557**

This loan program aims to increase the non-agricultural jobs available in rural areas, and to assist local lenders in providing the credit needed for the creation of jobs, expansion of industry and upgrading of the economic environment. Loan guarantees may range up to \$10,000,000.

- c. **Virginia Enterprise Zone Program
Virginia Economic Development Partnership
P.O. Box 798
Richmond, Virginia 23218-0798
(804) 371-8108
WebPage: www.YesVirginia.org**

Virginia's Enterprise Zone Program offers special state incentives for qualified businesses locating or expanding in a zone. The program is

designed to stimulate business development and to disperse job creation into all urban and rural areas. Virginia has 50 enterprise zones authorized statewide. Assistance takes many forms, including tax incentives and financial aid assistance.

- 5. U. S. Environmental Protection Agency
Office of the Chief Financial Officer
401 M Street, SW – MC 2710
Washington, D.C. 20460
(202) 260-1151
WebPage: www.epa.gov/ocfopage**

a. Environmental Finance Program

(1) Environmental Financial Advisory Board

A federally chartered advisory committee consisting of a diverse group of independent financing experts seeks to increase the total investment in environmental protection by facilitating greater leverage of public and private environmental resources. Loan amounts are determined by the project.

(2) Environmental Financing Information Network (EFIN)

EFIN is an EPA outreach service offering electronic access to many types of environmental financing information on financing alternatives for state and local environmental programs and projects. Financial packages developed based upon the project parameters.

(3) Environmental Financial Tools Webpage

This service is intended as a basic financial reference document for public and private officials with environmental responsibilities. It provides information on 250 financing tools that federal, state and local governments and the private sector can use to pay for environmental programs, systems and activities. Direct access to this information at www.epa.gov/efinpage.

- 6. Sustainable Jobs Fund**
115 Market Street, Suite 211
Durham, North Carolina 27701
(919) 530-1177
WebPage: www.sjfund.com
Email: acbroughton@sjfund.com

A new financial assistance network is being created by the Sustainable Jobs Fund (SJF) administered by a ten-year limited partnership. SJF is a community development venture capital fund that makes investments in growth enterprises that create quality jobs in economically distressed regions in the eastern United States. The Fund expects to exceed 15 million dollars in investment capital. SJF investments range from \$100,000 to \$1,000,000.

III. CONCLUSION

As directed in HJR No. 536 of the 1999 General Assembly, the Department of Environmental Quality has reviewed a number of funding sources available to small businesses to assist them in developing technologies to address the waste tire problem in Virginia. Our research has revealed 16 separate state or federal sources which can provide financial assistance packages up to \$10,000,000 for individual projects. We have determined that the Virginia Department of Business Assistance is the primary source for information on these resources.

DEQ was also directed to make recommendations concerning the creation of additional and/or expansion of existing funding sources. Based upon the accomplishments achieved to date by the Virginia Waste Tire Management Program (funded by the 50 cent tire tax) and the identification of existing funding options for small businesses, we believe that sufficient resources are already available for the development of new and/or alternative systems for handling Virginia's waste tires.

HOUSE JOINT RESOLUTION NO. 536

Requesting the Department of Environmental Quality, in cooperation with the Department of Business Assistance, to identify funding sources available to small businesses to assist them in developing technologies to eliminate the scrap tire problem in Virginia.

WHEREAS, approximately 250 million tires are discarded in the United States annually, and of this amount 72 percent are stockpiled; and

WHEREAS, large tire piles may cause fires that are difficult to extinguish; and

WHEREAS, in Winchester, over seven million tires burned for nine months, polluting the air, land, and water; and

WHEREAS, tire piles and whole scrap tires are also being shredded into strips and used as landfill cover at a total expense of \$55 per ton, while low-sulfur coal is being removed from the ground at an expense of \$54 per ton; and

WHEREAS, tires have a heating value equivalent to that of coal; and

WHEREAS, past attempts to recoup scrap tires from disposal areas and apply them to various uses had led to high costs to consumers and tire manufacturers and dealers; and

WHEREAS, in addition, new waste management laws requiring a reduction of solid waste transported to landfills place a further burden on waste management facilities and landfills; and

WHEREAS, efforts by state and local government and the tire industry have not resulted in any efficient, cost-effective program for the reduction of existing tire piles or the current flow of used tires to disposal areas; and

WHEREAS, a variety of new technologies, such as furnaces specifically designed to burn whole tires, may provide cost-effective and environmentally sound ways to produce energy; and

WHEREAS, the development of these technologies may prove most beneficial to Virginia's citizens and their environment, and further study is needed to determine ways in which grants, low-interest loans, and other small business financing programs might encourage and support the growth and implementation of these technologies; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department of Environmental Quality, in cooperation with the Department of Business Assistance, be requested to identify funding sources available to small businesses to assist them in developing technologies to eliminate the scrap tire problem in Virginia. The Departments shall also make recommendations concerning the creation of additional and/or the expansion of existing funding sources.

All agencies of the Commonwealth shall provide assistance to the Department of Environmental Quality, upon request.

The Department of Environmental Quality shall complete its work in time to submit its findings and recommendations to the Governor and the 2000 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

I. The Virginia Waste Tire Management Program

Virginia's Waste Tire Management Program (WTMP) is recognized across the country as a leader in the development, implementation and support of waste tire management networks and markets for the beneficial use of waste tire material. Since 1990, the Department of Environmental Quality (DEQ) has used the resources of the Waste Tire Trust Fund to foster the clean up of illegal waste tire piles, the clean up of tire piles at permitted landfill sites, the establishment of locality-based collection centers within regionally managed waste tire projects, and increased competitive access to processing systems for waste tires from the Commonwealth.

Since 1995, DEQ has worked to strengthen the markets for Virginia-derived waste tire material with its End User Reimbursement Program, providing a financial subsidy for those who use Virginia tire material in their products or processes. Through these efforts, we are pleased to report: 1) the number of waste tire processors that service Virginia's waste tire processing needs has grown from three (3) to eighteen (18); 2) current flow tires are being captured, processed and beneficially used by a network of 88 public collection sites and 55 registered waste tire haulers; 3) 426 of the original 731 tire piles in Virginia have been cleaned up, ridding the Commonwealth of some 6.5 million waste tires; and, 4) tire tax revenues remain slightly ahead of the end user reimbursement claims made each year.

II Incineration of Virginia Waste Tires with Energy Recovery

Since the beginning of the End User Reimbursement Program in 1995, Virginia tires have been used at 13 combustion facilities both inside and outside of the Commonwealth. Seven of these facilities use the waste tire material (tire shred) as a supplemental fuel because of its high BTU value, and the remaining six burn whole tires (cement kilns and one dedicated tire-to-energy facility). These end users are paid up to \$22.50 per ton (or approximately 22.5 cents per tire) from the Waste Tire Trust Fund. Since 1995, these facilities have burned 11,481,100 Virginia waste tires and have been paid \$2,799,883 in reimbursements. The following chart identifies the facilities, the number of tires burned, and the reimbursement received from the Waste Tire Trust Fund.

Any new waste tire combustor, such as a furnace envisioned by HJR No. 536, would also be qualified for reimbursements as long as it uses Virginia tires for energy recovery. It should be noted that none of the current combustion facilities routinely accept waste tire pile material for their use. Waste tires from tire piles are often contaminated with dirt, rocks and miscellaneous debris that, if it ends up in the tire material, could cause problems for the fuel user. For this reason, tire pile tires are not considered prime material for energy recovery use. Instead, these waste tires are better suited for civil engineering uses where the material specifications are not as restrictive. Another energy recovery operation would not, therefore, necessarily address the issue of tire pile clean ups in Virginia, but would have to compete for the current flow waste tire generation already captured by the existing processing/end user network.

Combustors of Virginia Waste Tires Since 1995

Name	Type of facility	# of Tires Burned	\$ Reimbursement Received
Ogden Martin Fairfax County	Solid Waste incinerator (tires shredded and mixed with trash)	3,970,400	\$1,070,973
Georgia Pacific Bedford County	Wood-fired boiler (tires shredded and mixed with wood fuel)	3,452,600	\$809,020
Bowater Catawba, SC	Wood boiler (shred)	1,616,000	\$340,951
SPSA Portsmouth	Solid Waste incinerator (shred)	650,200	\$161,081
Alliant Energy Madison, Wisc.	Electric utility boiler (shred)	666,700	\$133,340
ESSROC Cement Co. Buckeystown, MD.	Cement kiln (burns whole tires)	577,000	\$157,731
LeHigh Cement Co. Union Bridge, MD.	Cement kiln (whole tires)	307,300	\$69,145
Lehigh Cement Leeds, Ala.	Cement kiln (whole tires)	75,100	\$16,898
Exeter Energy Sterling, CT.	Dedicated tire incinerator (whole tires)	52,600	\$13,350
Hampton / NASA W.T.E. Hampton	Solid Waste incinerator (shred)	40,000	\$9,001
Independent Cement Hagerstown, MD.	Cement kiln (whole tires)	36,600	\$8,235
Ogden Martin Alexandria	Solid Waste incinerator (shred)	28,800	\$6,480
Waste Converters Joppa, MD	Solid Waste incinerator (shred)	7,700	\$3,678
Total		11,148,100	\$2,799,883