

Electronic Handbook of Industrial Resources

ALASKA



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November 2010

Introduction

This resource provides a comprehensive listing of incentives, tools, and resources for industrial manufacturing energy efficiency in the state of Alaska. It is organized according to industrial system and features information on rebates, waived fees, tax credits, loans and other resources such as analysis tools, education and training programs, and energy assessments. It is based on data available in the *States Incentives and Resources Database*, maintained by the U.S. Department of Energy's (DOE) Industrial Technologies Program (ITP).

The *States Incentives and Resources Database* is a comprehensive searchable online database of approximately 3,100 energy efficiency incentives organized by state. The database is updated regularly and is accessible via the *Save Energy Now* State and Regional Partnerships' Web site:

http://www1.eere.energy.gov/industry/states/state_activities/incentive_search.aspx



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State Industrial Overview

Alaska is the largest state in the United States by area and is situated in the northwest extremity of the North American continent. The state is widely recognized as having significant energy resources and is home to the largest oil field in the country, which is responsible for producing an average of 264,000 barrels of crude oil per day.¹

Alaska has a total of 0.7 million residents and ranks 45th in the nation in terms of the state's GDP, which is \$47.9 billion.² In 2008, Alaska ranked 30th in the nation for industrial energy consumption at 317.9 trillion Btu.³

Exhibit 1 below compares the industrial energy consumption in Alaska in relation to the national average. The chart in Exhibit 2 is a visual representation of the same data.

Exhibit 1: Total Industrial Energy Consumption Statistics in Alaska

Year	Alaska Energy Consumption (Trillion Btu)	National Average (Trillion Btu)
2000	310.7	680.2
2001	410.0	642.8
2002	411.4	642.0
2003	402.5	639.6
2004	389.9	658.7
2005	418.1	696.7
2006	353.7	636.6
2007	356.3	637.0
2008	317.9	614.8

Source: http://www.eia.doe.gov/emeu/states/sep_use/ind/use_ind_ak.html

Alaska at a Glance

State Information

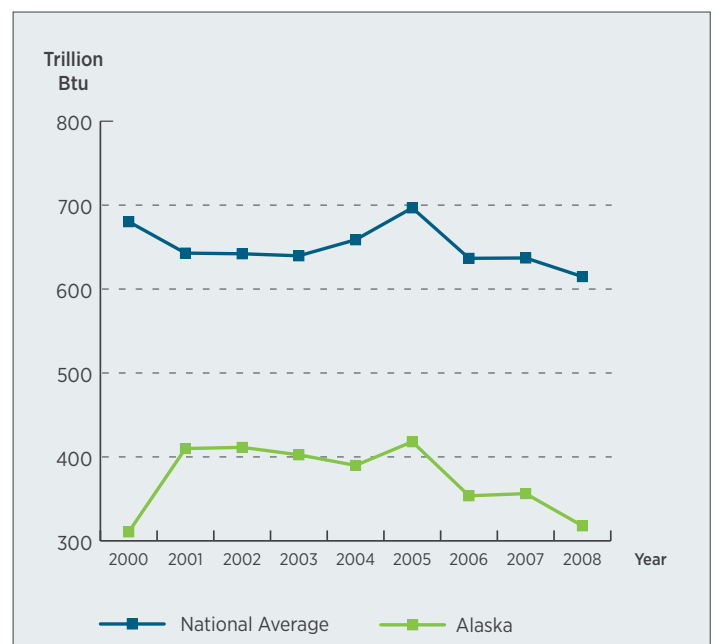
2009 Population (Million)	0.7
2008 GDP (Billion)	\$47.9
Rank by GDP	45

Energy Statistics

Total Energy Consumption 2008 (Trillion Btu)	650.8
Total Industrial Energy Consumption 2008 (Trillion Btu)	317.9
Total Industrial Energy Consumption Rank	30
Total Industrial Electricity Use 2008 (Trillion Btu)	4.6
Total Industrial Electricity Use Rank	49
Total Industrial Natural Gas Use 2008 (Trillion Btu)	259.7
Total Industrial Natural Gas Use Rank	8

Source: http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=AK

Exhibit 2: Total Industrial Energy Use



Federal and National Industrial Energy Efficiency Programs

In addition to the state level programs outlined in more detail in section III there are many government and non-government organizations that have resources to assist industry in the western region to utilize energy more effectively. Financial and technical resources are available from federal agencies, national laboratories, utilities, utility associations, industrial organizations, energy efficiency organizations, state energy offices, energy services companies, non-profits or non-governmental organizations, foundations, and private companies.

ITP is one such program that provides industrial manufacturers across the country with a variety of energy efficiency tools, resources, and incentives. ITP is a prime example of DOE's commitment to improving the energy efficiency of industrial operations in the United States. ITP is a multi-faceted outreach and deployment initiative designed specifically for industrial manufacturers. ITP supports research and development of energy efficient technologies, provides industry with energy management and assessment tools, resources, and information. It also provides no-cost energy assessments to industrial plants of all size.

Several other federal agencies offer energy efficiency incentives in addition to the multitude of DOE resources. Internal Revenue Service, for instance, provides tax incentives to industrial manufacturers that implement energy efficiency projects. In addition, the U.S. Environmental Protection Agency provides loans on new energy efficient construction and incentives on the implementation of combined heat and power systems. Finally, the U.S. Department of Agriculture is another federal agency that provides incentives to rural and small industrial operations seeking to become more energy efficient.

State Incentives by Industrial System

Building Systems

Research Information Center

The Alaska Housing Finance Corporation's Research Information Center offers technical assistance and resources for constructing energy efficient buildings. Resources include how-to manuals, books, magazines, building codes and standards, videos, reports, and construction inspection guidelines. Materials cover such topics as HVAC systems, renewable energy, and weatherization.

For More Information:

<http://www.ahfc.state.ak.us/energy/ric.cfm>

Sponsor: Alaska Housing Finance Corporation

Sponsor Type: State

Seminars and Trainings

ABSN offers several courses, training and continuing education classes covering a variety of energy related topics including constructing buildings to be energy efficient and air tight.

For More Information:

<http://www.absn.com/coursedescriptions.cfm>

Sponsor: Alaska Building Science Network

Sponsor Type: Other

HVAC

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Sponsor Type: Other

Energy Sources

Renewable Energy Grant Recommendation Program

In 2008, the Alaska Legislature established the Renewable Energy Grant Recommendation Program. The Alaska Energy Authority is soliciting competitive applications from qualified applicants for the purpose of recommending grants for renewable energy projects.

For More Information:

http://www.aidea.org/aea/RE_Fund.html

Sponsor: Alaska Energy Authority

Sponsor Type: State

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For More Information:

<http://www.ahfc.state.ak.us/energy/ric.cfm>

Sponsor: Alaska Housing Finance Corporation

Sponsor Type: State

Sustainable Natural Alternative Power (SNAP)

The SNAP program connects those interested in producing renewable energy (producers) with those who want to purchase renewable power. Producers can earn up to \$1.50 per kWh produced.

For More Information:

<http://www.gvea.com/alternative-energy/snap/>

Sponsor: Golden Valley Electric Association (GVEA)

Sponsor Type: Utility

Wind Energy Program

The program provides technical assistance, monitoring equipment and information to anyone interested in developing wind generation. Resources include online information, anemometer loans and personal assistance.

For More Information:

<http://akenergyauthority.org/program-wind.html>

Sponsor: Alaska Energy Authority

Sponsor Type: State

Industrial Systems General

Site Assessment Program

These low-cost energy assessments are designed to examine operating systems, maintenance of those systems, custodial practices, and waste management.

For More Information:

<http://www.greenstarinc.org/html/programs/site-assessments.php>

Sponsor: Green Star

Sponsor Type: Nonprofit

AIDEA Development Finance Program

AIDEA provides funding for Alaskans to develop and operate facilities in Alaska. Examples include roads, ports, airports, infrastructure for tourism destination

facilities or other public use facilities, which are essential for the economic well-being of an area and are able to produce adequate revenues to repay the bonds sold to finance the project. AIDEA statutes define a project as: 1) a plant or facility used or intended for use in connection with making, processing, preparing, transporting, or producing in any manner, goods, products, or substances of any kind or nature, or in connection with developing or utilizing a natural resource, or extracting, smelting, transporting, converting, assembling, or producing in any manner, minerals, raw material, chemicals, compounds, alloys, fibers, commodities and materials, products, or substances of any kind; 2) a plant or facility demonstrating technological advances of new methods and procedures and prototype, commercial applications for the exploration, development, production, transportation, conversion, and use of energy resources; and 3) infrastructure for a new tourism destination facility or the expansion of a tourism destination facility

For More Information:

<http://www.aidea.org/programsdevfin.html>

Sponsor: Alaska Industrial Development and Export Authority (AIDEA)

Sponsor Type: State

Denali Commission Training Fund

AEA, along with the Denali Commission Training Fund, continues to provide training opportunities to local residents for their energy projects and infrastructure. The intent of this training is to ensure that community personnel have the best skills with which to sustain their energy infrastructure in a business-like manner. Courses include: Power Plant Operator Training, Bulk Fuel Operator Training, Utility Clerk Training and more.

For More Information:

<http://www.aidea.org/aea/program-training.html>

Sponsor: Alaska Energy Authority

Sponsor Type: State

Power Project Loan Fund

The Power Project Loan Fund provides loans to local governments, utility companies, and small power producers. Loans are granted for the production or improvement of electric power facilities, including conservation, bulk fuel storage, and waste energy conservation, or potable water supply projects.

For More Information:

<http://akenergyauthority.org/programsloan.html>

Sponsor: Alaska Energy Authority
Sponsor Type: State

Powerhouse and Electrical Distribution Upgrades

Funding is available for efficiency improvements, powerhouse upgrades or replacements, line assessments, lines to new customers, demand-side improvements and repairs to generation and distribution systems. System upgrades to be funded may be identified through a variety of ways, including via technical assistance, advanced by the local community or directed by the Legislature. Examples of programmatic efforts include: Rebuilding or replacement of worn-out diesel generator units; Rebuilding or replacement of old and hazardous distribution systems; Construction of new power generation systems that meet State and Federal codes; Inclusion of heat recovery systems, where possible, in new powerhouses; and Force account labor and technical assistance to rural communities through AEA personnel and/or contractors with experience in rural construction.

For More Information

<http://www.aidea.org/aea/programsenergysystemupgrade.html#BFU>

Sponsor: Alaska Energy Authority
Sponsor Type: State

Lighting

Business \$ense

Business\$ense is a program designed to increase the efficiency with which energy is used on GVEA's system. The coop provides rebates of up to \$20,000 to commercial members who reduce their lighting loads through energy efficient lighting retrofit projects.

For More Information:

<http://www.gvea.com/memserv/energy-sense/businesssense.php>

Sponsor: Golden Valley Electric Association (GVEA)
Sponsor Type: Utility

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Seminars and Trainings

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For More Information:

<http://www.absn.com/coursedescriptions.cfm>

Sponsor: Alaska Building Science Network
Sponsor Type: Other

Lighting Energy Efficiency Pledge (LEEP)

LEEP requires businesses to pledge to change T-12 fluorescent lighting to T-8 lighting and incandescent bulbs to CFLs and LEDs. In return, vendors involved in LEEP will offer coupon discounts on lighting products. Technical assistance is also available.

For More Information:

<http://www.greenstarinc.org/html/resources/efficiency-resources/energy-faqs.php>

Sponsor: Green Star
Sponsor Type: Nonprofit

Site Assessment Program

These low-cost energy assessments are designed to examine operating systems, maintenance of those systems, custodial practices, and waste management.

For More Information:

<http://www.greenstarinc.org/html/programs/site-assessments.php>

Sponsor: Green Star
Sponsor Type: Nonprofit

End Notes

- ¹ Energy Information Administration “State/Territory Energy Profiles,” Accessed 1 Oct. 2010. http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=AK.
- ² Energy Information Administration “State/Territory Energy Profiles,” Accessed 1 Oct. 2010. http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=AK.
- ³ “Table S6. Industrial Sector Energy Consumption Estimates, 2008” U.S. Energy Information Administration http://www.eia.doe.gov/emeu/states/sep_sum/html/sum_btu_ind.html.

EERE Information Center

1-877-EERE-INFO (1-877-337-3463)

www.eere.energy.gov/informationcenter

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy