



Making Geothermal Direct Use Applications Happen: *Incentives, Funding & Proposals*

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Questions



- What Federal and State tax credits or incentives exist for direct use geothermal projects?
- What financing challenges will I face?
- Where is the money?
- How can the Small Business Administration help?
- What Federal solicitations might I respond to?
- Geothermal-biz.com
- Conclusion

DSIRE

- Information cited is taken in part from the Database of State Incentives for Renewable Energy (DSIRE).
- Established in 1995, DSIRE is a comprehensive source of information on State, local, utility, and selected Federal incentives that promote renewable energy.
- Ongoing project of the Interstate Renewable Energy Council (IREC), funded by the U.S. Department of Energy and managed by the North Carolina Solar Center.
- www.dsireusa.org/
- List is not exhaustive.

Federal tax credits & incentives

- Corporate Tax Incentives
 - Modified Accelerated Cost Recovery System (MACRS) with 50% Bonus Depreciation
 - Solar and Geothermal Business Energy Tax Credit
- Grant programs
 - Renewable Energy Systems and Energy Efficiency Improvements Program (USDA)
 - Tribal Energy Program Grants
- Federal Tax Exemption for Nontaxable Energy Grants or Subsidized Energy Financing

Federal Modified Accelerated Cost Recovery System (MACRS)

- Businesses can recover investments in geothermal property through depreciation deductions.
- For property placed into service after 1986, the MACRS property class is five years.
- 50% first-year bonus depreciation for property acquired after 5 May 2003 and before 1 January 2005.
- *IRS Form 4562: Depreciation and Amortization*

Solar and Geothermal Business Energy Tax Credit

- 10% tax credit (up to \$25,000/year) for commercial businesses that invest in or purchase qualifying energy property, defined as solar or geothermal energy.
- Geothermal energy property includes equipment used to produce, distribute, or use energy derived from a geothermal deposit.
- Does not include equipment used to generate steam for industrial or commercial processes.
- Credit is ongoing; has no expiration date.
- *IRS Form 3468: Investment Credit*

Renewable Energy Systems and Energy Efficiency Improvements Program (USDA)

- Authorized by the 2002 Farm Bill, Title IX, Section 9006.
- Provides low interest loans, loan guarantees, and grants to farmers, ranchers, and rural businesses to buy and install renewable energy systems and invest in energy efficiency.
- Grants of \$10,000-\$500,000 can be used to pay up to 25% of eligible project costs.
- Awarded \$21 million to 24 projects in August 2003 – none for geothermal.
- Managed by USDA Rural Development, Rural Business-Cooperative Service.
- www.rurdev.usda.gov/rbs/

Tribal Energy Program Grants

- Managed by DOE's Office of Energy Efficiency and Renewable Energy's (EERE's) Tribal Energy Program (through Golden field office).
- Provides financial and technical assistance to tribes for feasibility studies.
- Shares the cost of implementing sustainable renewable energy installations on tribal lands.
- Last solicitations due April 2003.
- \$2.2 million was awarded to 7 tribes in August 2003 — none for geothermal projects.
- www.eere.energy.gov/power/tech_access/tribalenergy/

Federal Tax Exemption for Nontaxable Energy Grants or Subsidized Energy Financing

- Energy grants and subsidized energy financing received by a business from Federal, State, or local government entities may be exempt from Federal taxation.
- Grants and financing must be for the principal purpose of conserving or producing energy.
- The administrator of the grant or financing must report disbursements of such funds to individual businesses using IRS *Form 6497*.

State tax credits, incentives & loan programs for direct use geothermal projects

- Alaska (4)
- Arizona — *None*
- California (2)
- Colorado — *None*
- Hawaii (1)
- Idaho (2)
- Montana (10)
- Nevada (1)
- New Mexico — *None*
- Oregon (5)
- Utah — *None*
- Washington (2)
- Wyoming — *None*

Alaska -1

- Alaska Industrial Development and Export Authority (AIDEA) - Loan Participation Program
 - Provides long-term financing to Alaska businesses for new or existing projects, or for refinancing existing loans for projects in Alaska.
 - Up to 15 years for personal property or 25 years for real property
 - Fixed or variable interest rate. Current fixed rates vary from 6.06% for 5 years to 7.56% for 25 years.
 - Originating financial institution retains a portion of the loan and also services the entire loan (i.e., payments are made to the bank, not to AIDEA).
 - The first step is to contact one of AIDEA's eligible financial institutions.
 - www.aidea.org/loanpart.htm

Alaska - 2

- Business and Export Assistance Program
 - Loan guarantee program for small to medium sized Alaskan businesses.
 - AIDEA can guarantee up to 80% of a loan, not to exceed \$1 million.
 - For real property, tangible personal property, working capital, and export transactions
 - For small businesses in rural areas, program provides a streamlined application process for secured and unsecured loan guarantees up to \$100,000.
 - The first step is to contact one of AIDEA's eligible financial institutions. The financial institution, after its approval of the loan, applies to AIDEA for a guarantee.
 - www.aidea.org/BEALG.htm
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Alaska - 3

■ Rural Development Initiative Fund

- To provide private sector employment by financing the start-up and expansion of businesses that will create significant long-term employment.
 - Maximum loan is \$100,000 for 1 person or \$200,000 for 2 or more; maximum loan term is 25 years.
 - Effective 1 July 2003, the interest rate is 6.0%. Rate subject to change 1 October 2003.
- Loans made to business located in a community with a population of 5,000 or less.
- Loans may be made for working capital, equipment, construction, or other commercial purposes.
- Loans must create or retain jobs in the eligible community.
- Managed by Alaska Division of Investments
- www.dced.state.ak.us/investments/rdif.html

Alaska - 4

- Small Business Economic Development Loan Fund
 - To provide private sector employment by financing the start-up and expansion of businesses that will create significant long-term employment.
 - Maximum loan is \$300,000; maximum term is 20 years.
 - Effective 1 July 2003, the interest rate is 4.0%. Rate subject to change 1 October 2003.
 - Companies must be a small business as defined by the Small Business Administration (SBA).
 - Applicants must match loan funds with non-public financing.
 - Projects must be located in eligible geographic areas.
 - Funding is limited.
 - Managed by Alaska Division of Investment.
 - www.dced.state.ak.us/investments/sbed.html

California - 1

- California Energy Commission (CEC) Energy Innovations Small Grant (EISG) Program
 - Up to \$75,000 to small businesses, non-profits, individuals and academic institutions to conduct research that establishes the feasibility of new, innovative energy concepts, including geothermal.
 - Due 19 September 2003.
 - www.energy.ca.gov/research/innovations/index.html

California - 2

- CEC Geothermal Program, Geothermal Resources Development Account (GRDA)
 - Funded by production royalty payments from Federal leaseholders in CA.
 - Awards are typically issued annually.
 - Grants or loans.
 - www.energy.ca.gov/geothermal/grda.html

Hawaii - 1

- High Technology Business Investment Tax Credit
 - 100% tax credit on an equity investment in a “qualified high tech business.”
 - “High tech” includes non-fossil fuel energy-related technology, i.e., energy produced by geothermal resources.
 - Credit allocated over five years.
 - Up to \$2 million for each taxpayer.
 - www.state.hi.us/tax/hi_tech.html

Idaho - 1

- Bonneville Environmental Foundation (BEF) - Renewable Energy Grant
 - Any private person, organization, local or tribal government, located in OR, WA, ID, or MT may submit a proposal to BEF.
 - Renewable energy grants and investments start at a few thousand dollars.
 - Projects that generate electricity are preferred.
 - Letters of Enquiry are accepted anytime.
 - www.b-e-f.org/grants/renew_logistics.shtm

Idaho - 2

■ Low Interest Energy Loans

- For energy conservation or renewable energy within Idaho.
- 4% interest; five-year term.
- Energy savings must be at least 10% of the project cost, e.g., a \$2,000.00 project must save \$200.00 a year.
- Renewable Loans: \$1,000 to \$100,000.
- www.idwr.state.id.us/energy/loans/default.htm

Montana - 1

- Alternative Energy Investment Tax Credit
 - 35% tax credit for an individual, corporation, partnership, or small business corporation.
 - For investment of \$5,000 or more in a commercial system or a net metering system that generates energy by means of an alternative renewable energy source.
 - Credit can only be taken on commercial operation.
 - Use State tax form AEPC.
 - www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-40

Montana - 2

- Alternative Energy Loan Program
 - 5-year low-interest loans up to \$10,000.
 - 2003 rate is 5.5%.
 - Loans can go to small businesses to install alternative energy systems that generate energy for their own use, including geothermal systems.
 - Defines “alternative energy systems” as “the generation system or equipment used to convert energy sources into usable sources.”
 - Subject to funding availability.
 - Managed by the Department of Environmental Quality (DEQ).
 - www.deq.state.mt.us/energy/Renewable/altenergyloan.asp

Montana - 3

- Bonneville Environmental Foundation (BEF) - Renewable Energy Grant
 - *See Idaho*

Montana - 4

- MicroBusiness Finance Program
 - Businesses producing energy using an alternative renewable energy source are eligible.
 - Loans up to \$35,000.
 - Microbusiness defined as a Montana-based company with < 10 full-time employees and gross annual revenue of < \$500,000.
 - Apply for loan at a certified microbusiness development corporation (eight located around the state).
 - commerce.state.mt.us/brd/BRD_MBFP.html

Montana - 5

- **Montana Beginning Farm/Ranch Loan Program**
 - Tax-exempt bond program to help beginning farmers and ranchers acquire agricultural property at lower interest rates.
 - May be used for the production of energy using an alternative renewable energy source.
 - Energy generated must be used within the agricultural operation.
 - Provides lower interest (1-2% below market) loans:
 - Up to \$250,000 for agricultural land and improvements
 - Up to \$62,500 for used depreciable agricultural property
 - Managed by Montana Department of Agriculture.
 - www.agr.state.mt.us/grants/first.htm

Montana - 6

- New or Expanded Industry Tax Credit
 - For businesses engaged in the production of energy by means of an alternative renewable energy source.
 - To be considered an “expanding industry,” total full-time jobs must increase by at least 30%.
 - Credit is equal to 1% of new wages paid in state during the first three years of operation.

Montana - 7

■ Rural Assistance Loan

- Provides loans to producers with modest financial investments in agriculture.
- Loans for those who are unable to qualify for financing from commercial lenders.
- Project must show a positive cash flow.
- Maximum loan is \$50,000/person.
- Interest fixed for 3 years; adjustable at 3-year intervals.
- Funds may be used to finance agricultural property, improvements, annual operating expenses, and land.
- Managed by Montana Department of Agriculture.
- www.agr.state.mt.us/programs/add/ruralast.shtml

Montana - 8

■ Seed Capital Loan

- For the commercialization and marketing of new and innovative agricultural products or processes.
- Maximum loan limit per round of financing is \$50,000.
- Security and repayment provisions are structured on case-by-case basis.
- Interest rates may change with economic conditions, but are fixed for the term of any particular loan.
- Managed by Montana Department of Agriculture.
- www.agr.state.mt.us/programs/add/seedcap.shtml

Montana - 9

- Tax Incentive Assessment of Energy Generating Property
 - Property tax exemption for buildings using renewable energy.
 - \$100,000 of the assessed value of non-fossil forms of energy generation equipment are exempt from property taxes for 10 years following installation.
 - See State tax form AB-14, “Tax Incentive Assessment of Energy Generating Property.”

Montana - 10

- Universal Systems Benefit (USB) Renewable Fund
 - Approximately \$1 million available/year.
 - Grants range from \$5,000 to \$1.5 million.
 - Must be a NorthWestern Energy electric distribution customer to apply.
 - “Project must benefit NorthWestern Energy electric distribution customers in some way.”
 - Managed by NorthWestern Energy.
 - www.northwesternenergy.com/energy/renewables/renewable_energy.htm

Nevada - 1

- Tax Exemption Incentive (NRS 361.079)
 - Assessed value of residential, commercial, or industrial building minus value added by a renewable energy source is used to calculate property taxes.
 - Exemption applies to systems for heating, cooling, or provision of electricity.
 - Includes geothermal to heat or cool water or buildings.
 - Exemption applies for all years following installation.
 - energy.state.nv.us/renewable/incentives.htm

Oregon - 1

- Bonneville Environmental Foundation (BEF) - Renewable Energy Grant
 - *See Idaho*

Oregon - 2

- Business Energy Tax Credit (BETC)
 - For investments in renewable energy resources.
 - Energy can be used on site.
 - Any Oregon business may qualify.
 - Tax credit of 35% of project costs over five years.
 - You must apply for the tax credit before starting your project.
 - www.energy.state.or.us/bus/tax/taxcdt.htm

Oregon - 3

■ Energy Loan Program (SELP)

- Promotes energy conservation and renewable energy resource development.
- Offers low-interest loans for projects that produce energy from renewable resources, including geothermal.
- Loans typically range from \$20,000 to \$20 million.
- Terms vary.
- Interest rates for commercial renewable projects are subject to bond sale. Estimated at 4.5% to 5% for up to 15 years.
- Managed by the Oregon Department of Energy.
- www.energy.state.or.us/loan/selphme.htm

Oregon - 4

- Eugene Water & Electric Board (EWEB) - Energy Smart Services Loan & Rebate
 - 6% loan, five-year term, and 15¢/kWh cash rebate to customers who install and utilize renewable energy as an alternate source of power in the workplace.
 - www.eweb.org/energy/energysmart/index.html

Oregon - 5

- Renewable Energy Resources Open Solicitation
 - Grant program.
 - Application asks for energy generation capacity but may consider geothermal heating projects.
 - \$1.2 million available per year.
 - Managed by the Energy Trust of Oregon, Inc.
 - www.energytrust.org

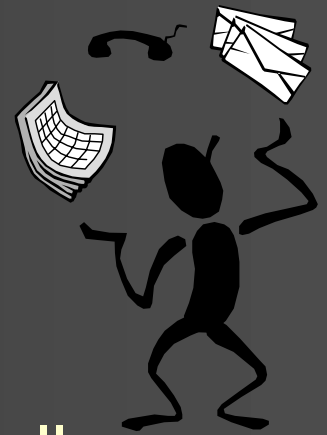
Washington - 1

- Bonneville Environmental Foundation (BEF) - Renewable Energy Grant
 - *See Idaho*

Washington - 2

- Tax Deferrals For High Technology Businesses
 - Exempts qualifying high technology manufacturers from State corporate excise tax.
 - “High technology” includes the development of alternative energy resources.
 - 100% exemption with no limit.
 - Ends in 2004.

Financing challenges



- Financing challenges common to any small business:
 - Getting outside funding is difficult during the early years of any business.
 - Banks demand tangible assets or evidence of significant revenue to secure a loan.
 - Banks are unlikely to grant an unsecured loan to a startup business.

Financing challenges (cont'd)

- For a startup business, financing sources will look for:
 - Feasible business plan with realistic projections.
 - Management expertise and commitment to make the business succeed.
 - Capital injection (generally a minimum of 30%) by the owner.
 - Owner's personal financial strength.
 - Collateral.

Where is the money?



- Financing sources depend on size of project and amount of financing needed.
 - Personal assets, credit cards, home equity line.
 - “Insider” financing, e.g., friends, family.
 - Your friendly neighborhood bank or credit union – most common source of funding.
 - Angel investors and venture capital firms - for expanding companies.
- Small Business Administration (SBA) Basic Financing Programs

SBA Basic Financing Programs

- The SBA offers numerous loan programs to help small businesses.
- SBA is primarily a guarantor of loans/
- Loans are made by private and other institutions.
- Contact your local SBA office:
 - www.sba.gov/ak/
 - www.sba.gov/az/
 - Etc.

SBA Basic Financing Programs

■ Basic 7(a) Loan Guaranty

- For small businesses which are unable to secure financing on reasonable terms through normal lending channels.
- Commercial lenders make and administer the loans.
- Interest rates are negotiated between the borrower and the lender.
- Lender gets SBA guaranty up to \$1 million.
- Guaranty for small loans (< \$150,000) is 85%
- Guaranty for loans > \$150,000 is 75%.
- www.sba.gov/financing/sbaloan/7a.html

SBA Basic Financing Programs

- Section 504 Certified Development Company (CDC) Program
 - Long-term, fixed rate financing for investment in fixed assets (e.g., land, buildings).
 - Typically includes a senior lien from a private-sector lender of 50%; 40% from CDC, and 10% from borrower.
 - Interest rates pegged to U.S. Treasury issues.
 - Terms of 10 and 20 years available.
 - Extended through SBA-approved Certified Development Companies (CDCs).
 - www.sba.gov/financing/sbaloan/cdc504.html

SBA Basic Financing Programs

- Microloan, a 7(m) Loan Program
 - Up to \$35,000 for small businesses.
 - For working capital or inventory, supplies, furniture, fixtures, machinery, and equipment.
 - Applications submitted to the local intermediary and all credit decisions are made on the local level.
 - Lenders required to provide business training to borrowers.
 - Maximum term: 6 years; interest rates vary.
 - www.sba.gov/financing/sbaloan/microloans.html
-

SBA Basic Financing Programs

■ Loan Prequalification Program

- Applicants have their loan applications for \$250,000 or less analyzed and potentially sanctioned by the SBA before they are taken to lenders for consideration.
 - Program focuses on the applicant's character, credit, experience, and reliability rather than assets.
 - SBA-designated intermediary works with business owner to review and strengthen the loan application.
 - www.sba.gov/financing/sbaloan/prequalification.html
-

What Federal solicitations might I respond to?

- State Energy Program Special Projects
- USG Solicitations
 - U.S. Department of Energy
 - U.S. Department of Agriculture
- Tracking
- Responding to
- Cost share

State Energy Program Special Projects awards

- \$17.4 million for 187 energy efficiency and renewable energy projects awarded 13 August 2003.
- Five projects totaling \$294,085 for Geothermal Outreach:
 1. Arizona Geothermal Collaborative Outreach Program, \$99,640
 2. Assessment of Hawaii's Geothermal Resource and Potential for Hydrogen Production, \$42,753
 3. Geothermal Energy Outreach In Rural Idaho Communities, \$59,572
 4. Identifying New Opportunities for Direct-Use Geothermal Development in California, \$54,310
 5. New Mexico Geothermal Direct-Use Development, \$37,810

USG Solicitations - Tracking

- Federal Business Opportunities / FedBizOpps
 - For USG procurement > \$25,000.
 - Includes DOE and USDA solicitations.
 - Searchable by agency, lab, location, posted date, class code, key word, etc.,
 - Classification Code: A -- Research & Development
 - Classification Code: B -- Special studies and analysis - not R&D
 - You can register to receive notification when a specific solicitation is issued (once synopsis is released).
 - www.fedbizopps.gov

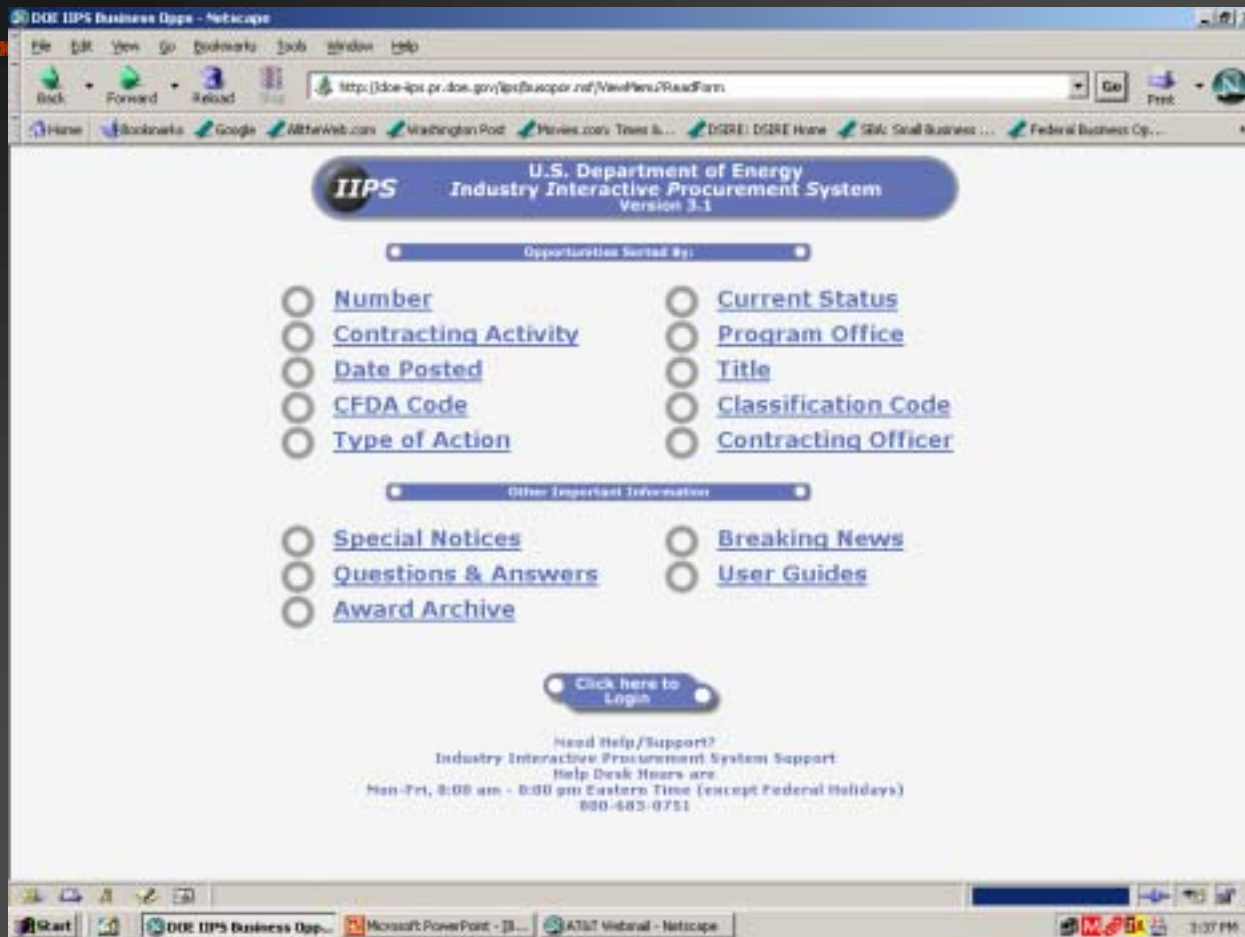
FedBizOpps



DOE Solicitations - Tracking

- DOE e-Center, “Business Opportunities with Energy”
 - You can browse business opportunities currently available in the Industry Interactive Procurement System Support (IIPS).
 - Browse by number, status, program office, date posted, title, etc.
 - Includes Award Archive.
 - Also listed on FedBizOpps.
 - doe-iips.pr.doe.gov

DOE IIPS



USDA Solicitations - Tracking

- Office of Procurement and Property Management
 - Also listed on FedBizOpps.
 - www.usda.gov/procurement/business/index.html
- For information on Renewable Energy Systems and Energy Efficiency Improvements program, contact:
 - Local USDA Rural Development office,
 - USDA's Rural Development website at www.rurdev.usda.gov, or
 - USDA's 2002 Farm Bill website at www.usda.gov/farmbill.

Responding to USG Solicitations

- Usually divided into a Technical Proposal and a separate Cost Proposal.
- Follow RFP instructions.
- Respond to each item precisely, concisely, and completely.
- Proposal Table of Contents should mirror selection criteria outlined in RFP.

Cost share

- Requirement varies from RFP to RFP
 - 75% required for USDA's Renewable Energy Systems and Energy Efficiency Improvements Program.
 - Was "encouraged but not required" for the Geothermal Energy Program of DOE's 2002 Broadbased Solicitation.
- Even if not required, is considered in selection process.
- Cost share can usually be met by money invested or in-kind costs.
- Must come from non-Federal sources.

Geothermal-biz.com

The screenshot shows a Netscape browser window displaying the Geothermal Biz.com website. The browser's address bar shows the URL: file:///C:/Users/nicholas/Desktop/GeothermalBiz.com/GeothermalBiz.com/index.html. The website features a large orange header with the text "Geothermal biz.com" and the tagline "Development information for the geothermal entrepreneur." Below the header, there are several sections: a "Wanted: Mechanical Engineer" advertisement, a "Geothermal Well (dash)" advertisement, and a list of frequently asked questions (FAQ) about geothermal energy. The FAQ includes questions such as "What is geothermal energy?", "How can geothermal resources be used?", and "Why is the development of renewable geothermal resources vital to the United States' energy and national security?". The website also includes a "Financing Geothermal Development" section and a "Planning Geothermal Development: Challenges & Opportunities" section. The browser's taskbar at the bottom shows the Start button, Microsoft PowerPoint, C:\BLSA Work, and Geothermal Biz.com.

Geothermal
biz.com
Development information for the geothermal entrepreneur.

Whether you need to grant permits,
navigate regulations, or
promote projects...
...We can tell you where to get
the information you need
to develop your geothermal resource.

Wanted: Mechanical Engineer
The **Geothermal Biz.com** is looking for a
Mechanical Engineer to head up a technical
assistance program concerned with the
direct utilization of geothermal energy. The
ideal candidate, see the **Position
Requirements on the Geothermal Biz.com
website**
(17 Jul 2013)

Geothermal Well (dash)
Owner selling - Property used as fish farm
for last 12 years. 8 acres of land with 415
acres of ponds. 130' N of 213 geothermal
anomaly. Includes water rights for 240
gpm/minute. 40x20 shop with 30x30
office inside. 30ft x 2.5ft manufacture home
on site. Asking \$500,000-550. Contact Chris
at chris@geothermalbiz.com

Geothermal Biz.com is part of the U.S. Department of Energy-led **GeoPowering the West (GPW)** effort to dramatically increase the use of
geothermal energy in the western United States, Alaska, and Hawaii.

Geothermal Biz.com was created to help the geothermal entrepreneur—engineers, small business, Future American jobs, lawmakers, and
advocates—develop geothermal development and small power generation projects by providing information, including:

- **What is geothermal energy?**
- **How can geothermal resources be used?**
- **Where can I find more information on geothermal resources?**
- **Why is the development of renewable geothermal resources vital to the United States' energy and national security?**
- **How do local, state, and the Federal governments support the development of geothermal resources?**
- **Where are geothermal resources located in my state?**
- **What is happening with geothermal development in my state?**
- **Who can I contact for more information in my state?**

For answers to the above questions, refer to **FAQ's**.

For state-specific information, refer to **State Information**.

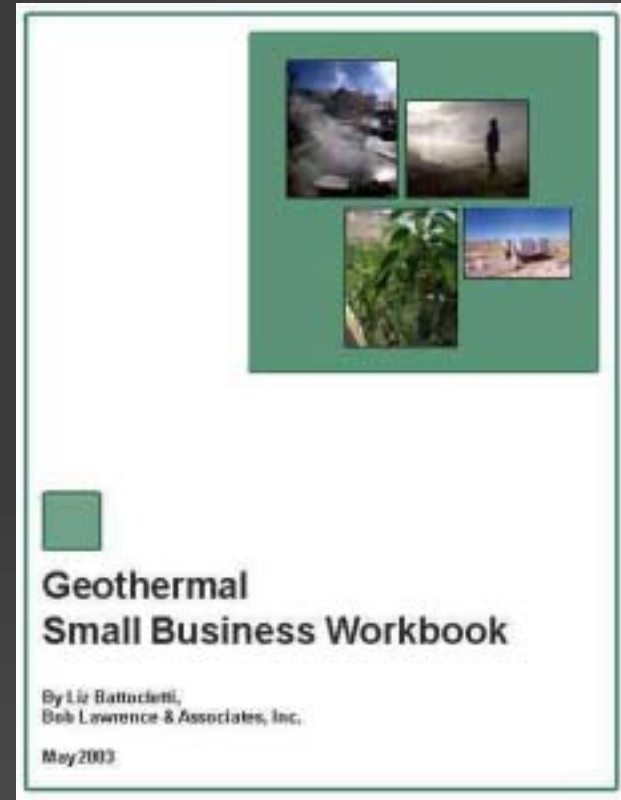
For the latest news and the **Geothermal Biz.com** e-newsletter, see **News**.

Financing Geothermal
Development.

"Financing Geothermal Development:
Challenges & Opportunities"

Geothermal Small Business Workbook

- Helps geothermal entrepreneur, small company, or project developer:
 - Understand different types of geothermal projects, and
 - Structure a business and financing plan for a small geothermal project.
- Available in PDF format on Geothermal- biz.com website.
- Written by BL&A.
- Supported by DOE Geothermal Technologies Program.



Geothermal Small Business Financing Workbook

- Second in series.
- Will describe various types of financing sources for geothermal entrepreneurs, small companies, and developers.
- Explain their financing criteria.
- Financing survey emailed, faxed, and mailed to 325 potential financing sources.
- Expected to be available at the end of 2003.
- Will be posted on Geothermal-biz.com website.

Conclusion

- Opportunities exist to develop geothermal resources into thriving businesses.
- There is public and private financing available for direct use geothermal projects.
- There are many Federal and State incentives for geothermal projects.
- Most do not identify direct use projects *per se*—check with specific program.
- Financing challenges differ based on size of project and amount of financing needed.



- Direct use projects could be self-financed.
- Issues for financing sources still remain:
 - Cash flow,
 - Whether project is a viable business, and
 - Strength of management.

The End

*This presentation will be posted on
the Geothermal-biz.com website*

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