



Greenergy Investments Foundation
Helping Finance Clean Energy Projects

BUSINESS PLAN

September 1, 2003

A Non-profit 501 (c) (3) Organization

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EXECUTIVE SUMMARY

The mission of Greenergy Investments Foundation (GIF) is to accelerate the adoption of clean energy by helping project sponsors identify and secure financing for clean energy projects.

The public, government, and business community are increasingly aware of the benefits of clean energy. Nonetheless, many proposed clean energy projects are unable to secure project financing. The challenges project sponsors face identifying and securing a viable package of debt, equity, government, and other funds constitute a major barrier to our nation's adoption of clean energy.

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But these challenges are not insurmountable. Greenergy Investment Foundation's team has first-hand experience overcoming the financial challenges that confront clean energy projects. We know that many well-designed clean energy projects can be successfully financed *if the full array of potential funding sources and financing strategies are effectively utilized.*

The problem is that project sponsors do not have a cost-effective way of identifying the various private, government, and philanthropic funding sources available to clean energy projects. Nor do they have access to affordable expertise in how to effectively integrate funds from this array of sources into a viable financing package. In addition, they do not have the tools to quantify a project's *full* value—to investors *and* the public—which are critical to selling clean energy projects to a broad range of potential funding sources.

GIF provides clean energy project sponsors with the financial information, expertise, tools—and in some instances the funds—necessary to successfully finance clean energy projects. GIF's current and planned activities include:

- Providing information on the full range of funding sources, financing strategies, and available resources through GIF's web portal;
- Advising individual project sponsors on how to integrate emerging and traditional financing strategies to successfully finance clean energy projects;
- Developing tools for quantifying the public value of clean energy projects in order to attract a broader range of funding sources; and
- Establishing a "non-profit investment fund" to make investments in projects which promise outstanding public value and further GIF's mission.

BUSINESS PLAN

Greenergy Investments Foundation, a 501 (c) (3) non-profit organization, will play a new and unique role helping clean energy projects identify and secure project financing.

STRIVING TOWARD A VISION

ACCELERATING THE ADOPTION OF CLEAN ENERGY

GIF's Board, management, and staff are committed to making clean energy the norm in this country. Clean energy will provide badly needed improvements in public health and the environment, help improve the economies of distressed communities, and enhance the security of local communities and our nation as a whole.

The public, government, and private sectors are increasingly aware of these benefits. Consumers are buying electricity from renewable sources at a cost premium, the government continues to adopt incentives to promote clean energy growth, and some in the private sector are beginning to recognize that public benefits—such as reduced emissions—can positively impact an energy project's financial performance.

Nonetheless, as a nation we continue to underutilize clean energy. Less than 4% of the new power generation developed in the last four years used clean, non-fossil fuel energy technologies¹.

One of the central obstacles to the adoption of clean energy is project financing. Clean energy technologies exist today, but energy projects that utilize these technologies face difficult challenges identifying and securing financing. These financing challenges arise due to a confluence of factors relating to market entry, project scale, systems integration, and regulatory uncertainty. Overcoming these challenges will dramatically accelerate the adoption of clean energy.

An opportunity exists for a non-profit organization to play a unique role working to overcome these project financing challenges.

An opportunity exists for a non-profit organization to play a unique role working with private financial institutions, government agencies, and other nonprofits to overcome these project financing challenges.

¹ EIA 2003 Annual Energy Outlook Report.

TODAY'S MARKETPLACE

A CHALLENGING ENVIRONMENT FOR CLEAN ENERGY PROJECT FINANCING

Many clean energy projects are unable to secure financing due to (1) the inability of project sponsors to capture the full public and private value of clean energy projects and leverage it for purposes of project financing, and (2) the complexity and cost of structuring financing packages that effectively utilize all potential funding sources.

Clean energy projects create substantial value beyond their financial return to investors. They generate *public* value—locally, nationally, and globally—through improvements in public health and the environment, economic development, and national security. This value is often referred to as “*social* return on investment” (SROI).²

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Unfortunately, it is extremely difficult to fully capitalize on a project's SROI for purposes of project financing.

Unfortunately, it is extremely difficult to fully capitalize on a project's SROI for purposes of project financing. Of necessity, project sponsors rely heavily on private funding sources—commercial lenders and institutional investors—who do not value SROI in their funding decisions. These sources focus predominantly on a project's financial return on investment (FROI).³ Unless they can quantify the financial returns associated with SROI, they are unable to factor it into their valuations.

As a result, many clean energy projects do not meet these funding sources' requirements—including debt coverage ratios and internal rates of return (IRR)—which are designed to assure acceptable levels of financial risk and profit. These “FROI-focused” funding sources typically attribute this to the relatively small size of most clean energy projects and the financial risks presented by new clean energy technologies.

Unless project sponsors invest a great deal of ingenuity and effort into financing a project, they are unlikely to develop financing strategies that adequately address each of the risks—relating to technology performance, regulatory uncertainty, customer stability, and price volatility—that are of concern to these funders, particularly commercial lenders.

Successfully addressing these risks is possible, however, if project sponsors can identify and secure a sufficient level of funding from *SROI-focused* funding sources. These sources value

² See, e.g.; the work of the Roberts Enterprise Development Fund (www.redf.org).

³ *Risk-adjusted* financial return on investment.

clean energy projects for their SROI and promote them by providing lower-cost funds—by having greater tolerance for financial risk and lower expectations regarding financial returns. These sources include Federal, state, and local capital buy-down programs, low-interest loans, and tax credits, as well as other innovative and emerging sources of capital such as “Renewable Energy Certificates.”

The problem is accessing the full array of available funding sources, and developing a comprehensive financing package that effectively integrates funds from these sources.

By putting together a financing package utilizing both FROI- and SROI-focused funds, project sponsors can lower the financial risks associated with a project, increase cash reserves in the early years, and generate an IRR that commercial lenders and institutional investors will more frequently find acceptable.

Currently, however, identifying and accessing the full array of available funding sources is extremely difficult and costly, as is developing a comprehensive financing package that effectively integrates funds from these sources—each of which has its own set of funding requirements.

Furthermore, in spite of the current array of SROI-focused funding sources, some well-designed projects promising exceptionally high SROI will be unable to secure financing. For these projects, sponsors need the ability to attract additional funding. They need means of better capturing and communicating the full spectrum of value produced by clean energy projects, and better leveraging it in the context of project financing.

THE GIF MISSION

IDENTIFYING AND SECURING FINANCING FOR CLEAN ENERGY PROJECTS

GIF's mission is to accelerate the adoption of clean energy by helping project sponsors identify and secure financing for clean energy projects⁴. Our premise is that if the obstacles to project development are successfully overcome, the generation and use of clean energy will thrive.

Specifically, GIF will address the two primary obstacles to financing clean energy projects identified in the previous section:

1. Financing clean energy projects is prohibitively difficult and costly. Each project sponsor is forced to “reinvent the wheel;” the transaction costs derail many projects that could otherwise proceed and that offer outstanding public value.
2. Funding remains limited for particularly “high SROI/low FROI” energy projects. The tools, strategies, and funding sources currently available to project sponsors are insufficient to finance many projects that offer extraordinary public value.

GIF will facilitate project sponsors' use of existing funding sources and financing strategies, and help develop new ones.

GIF's mission with regard to these two obstacles is simple: aggregate and make accessible the full array of existing financing resources and strategies; and work with the financial and philanthropic communities and others to develop viable new approaches for financing the highest SROI energy projects.

Other entities are focusing on various aspects of these obstacles (see appendix C), but none are taking a comprehensive approach to assisting individual project sponsors—and the clean energy movement generally—to overcome these obstacles. GIF will fill this void by providing the services and products described in the next section. GIF's success in these endeavors is essential to breaking the project financing “log jam” and helping unleash clean energy's potential to serve our nation's power needs.

⁴ *Projects* as opposed to clean energy companies or any particular clean energy technology.

A UNIQUE BUSINESS MODEL

A BLEND OF TRADITIONAL AND INNOVATIVE APPROACHES FOR A NONPROFIT

GIF's business model has two core components. Currently, GIF is helping project sponsors use the full range of existing funding sources and financing strategies for clean energy projects. Starting within the year, GIF will also research and develop new "high-SROI" financing strategies and funding sources that can accelerate the adoption of clean energy. GIF's current and planned activities include:

- Providing information on the full range of funding sources, financing strategies, and available resources through GIF's web portal;
- Advising individual project sponsors on how to integrate emerging and traditional financing strategies to successfully finance clean energy projects;
- Developing tools for quantifying the public value of clean energy projects in order to attract a broader range of funding sources; and
- Establishing a "non-profit investment fund" to make investments in projects which promise outstanding public value and further GIF's mission.

WEB PORTAL – A CLEARINGHOUSE FOR FINANCING INFORMATION AND TOOLS

GIF's web portal will be a comprehensive and impartial source of project financing information and tools. The site will provide critical information to project sponsors as they attempt to identify potential funding sources and develop effective financing strategies. The site's three main sections, to be developed sequentially, will cover:

1. *Basic how-to information and a list of primary resources.* Initially the website will provide introductory information that can help project developers understand basic project financing approaches and considerations, and how to find additional information and assistance. It also will be home to GIF's bi-annual newsletter, which will provide updates on emerging funding sources and trends in project financing for clean energy projects.
2. *A comprehensive database of funding sources and resources.* The second phase of the website will be a searchable database of funding sources and project financing assistance/resources.

The website will help project sponsors identify funding sources and develop successful financing strategies.

3. *In-depth information and interactive tools.* Ultimately, the website will include a sophisticated set of interactive tools for modeling and analyzing an energy project's SROI and potential financing strategies.

ADVISORY SERVICES – AFFORDABLE EXPERTISE IN PROJECT FINANCING

GIF provides advisory services, helping individual project sponsors create successful financing strategies for their clean energy projects. These advisory services range from reviewing preliminary financing strategies to assisting throughout the design and negotiation of comprehensive financing packages. GIF's nonprofit structure enhances our ability to provide affordable, objective, and comprehensive expertise, while taking advantage of a broader array of financing and fee structures.

The advisory services GIF provides include: identifying and modeling alternative combinations of potential sources of capital, recommending cost reduction and revenue enhancement strategies, performing financial risk analysis and designing risk management strategies, and negotiating terms with project funders.

GIF's clients will tend to be first-time clean energy project sponsors planning on-site power plants. GIF will develop its client base through the website, referrals from past clients, and an extensive network of financial institutions, engineering firms, clean energy technology manufacturers, government agencies, and other nonprofits.

GIF's advisory services range from reviewing preliminary financing strategies to assisting throughout the design and negotiation of comprehensive financing packages.

GIF will focus on promising clean energy projects for which commercial sources of project financing advice are unaffordable; modeling the provision of services on the practice of a public interest law firm. GIF's level of involvement will hinge on a project's potential for high SROI and the project sponsors' need for assistance.

Fees will be set based on GIF's costs and the developer's ability to pay, employing creative compensation mechanisms that minimize the financial impact on the project. In lieu of immediate payment of fees, GIF will consider deferred payments based on a percentage of gross project revenues.

GIF will assess whether to create a wholly-owned, for-profit subsidiary to provide these services. Doing so may enable greater leveraging of GIF's value in this area in support of other GIF activities.

RESEARCH – QUANTIFYING PUBLIC VALUE TO ENHANCE PROJECT FINANCING POTENTIAL

GIF will help define and conduct multidisciplinary research focusing on the SROI of energy projects and financial strategies for promoting this SROI. This research is crucial to attracting additional government and philanthropic funding, and private investment, for clean energy projects.

1. *Developing SROI metrics for energy projects.* GIF will develop a practical methodology for calculating the public health, environmental, social, and economic impacts of energy projects. The development of a robust modeling tool capable of analyzing the SROI of a project has the potential to fundamentally alter the understanding of clean energy's value and the metrics which various funding sources apply to energy projects. Models currently exist that quantify some of these public impacts, but no means exist for a comprehensive, multi-impact analysis.

This research is crucial to attracting additional government and philanthropic funding, and private investment, for clean energy projects.

2. *Developing and cataloguing funding sources and financing strategies for high-SROI energy projects.* This is GIF's core area of expertise. We will make it broadly available as we continue to expand our repertoire of sources and strategies appropriate in various applications and settings. Initially, we plan a report cataloguing existing and emerging funding sources and financing strategies for clean DG projects.

INVESTMENTS – A NON-PROFIT FUND FOCUSING ON THE PUBLIC VALUE OF CLEAN ENERGY

GIF will develop the final element of this business plan over the next eighteen months: a “nonprofit investment fund” providing low-cost, risk-tolerant capital to clean energy projects offering outstanding SROI. Its investments will be strategically targeted to accelerate the widespread adoption of clean energy.

GIF will develop a “nonprofit investment fund” providing capital to clean energy projects offering outstanding SROI.

GIF's ability as a nonprofit to tolerate low risk-adjusted financial returns on investments provides tremendous potential for leveraging capital markets' support of high-SROI energy projects. Investments of this sort can be critical to a high-SROI project. A 5% stake in the form of unsecured, subordinate debt can make a significant difference in terms of cash reserves and the IRR for a project's first few years of operation.

The fund's monies will come from tax-deductible donations to GIF by individuals, companies, and foundations. These contributors will get outstanding SROI on their "philanthropic investment." GIF will receive the FROI from the fund's investments and will reinvest it in new clean energy projects.

As a nonprofit, GIF can use virtually all of the investment vehicles available to private entities, as well as structures unique to nonprofits.

GIF can use virtually all of the types of investment vehicles available to private entities, as well as the proceeds from tax-exempt bonds and other structures unique to nonprofits. As debt instruments can offer a more immediate, steadier, and relatively predictable FROI, GIF will use them more often than forms of equity. We anticipate frequent subordinate debt roles.

GIF will develop a "Fund Prospectus" in advance of launching the fund. The Prospectus will describe in detail the fund's investment objectives, criteria, and process.

FINANCIAL PROJECTIONS

EVOLVING REVENUE SOURCES AND USES

GIF commits to be the most cost-effective vehicle for transforming philanthropic investment into increased availability of clean energy. We will be a small organization with minimal overhead. We believe we can accomplish the plans outlined herein with a staff of four to six people.

GIF's revenue sources will shift to self-funding through fees for advisory services and financial returns on GIF investments.

As the projections on the right indicate, GIF plans a shift in the sources and uses of revenue. Charitable contributions and grants will be the primary revenue source for the first few years while GIF ramps up its web portal, advisory services, and investment fund. Thereafter, expenditures on the web portal and for research will level off, with a shift in revenue sources to increased self-funding through fees for advisory services and, eventually, financial returns on GIF investments.

OUR FUNDING STRATEGY FOR THE FIRST TWO YEARS

For the first two years, GIF has and will rely heavily on charitable contributions and grants. The strategy for soliciting contributions entails identifying companies, foundations, and individual

PROJECTED GIF BUDGET (in thousands)			
YEAR	2003	2004	2005
	<i>(six months)</i>		
SOURCES:			
Contributions:	75%	35%	20%
	\$ 150	\$ 210	\$ 400
Fund Donations:	0%	40%	60%
	\$ -	\$ 240	\$ 1,200
Grants:	20%	15%	10%
	\$ 40	\$ 90	\$ 200
Fee for Service:	5%	10%	10%
	\$ 10	\$ 60	\$ 200
Return on Fund:	0%	0%	0%
	\$ -	\$ -	\$ -
Total:	\$ 200	\$ 600	\$ 2,000
USES:			
Investments:	0%	40%	60%
	\$ -	\$ 240	\$ 1,200
Advisory Services:	25%	12%	25%
	\$ 50	\$ 72	\$ 500
Fund Dev/Mngmt:	5%	5%	5%
	\$ 10	\$ 30	\$ 100
Overhead:	15%	5%	5%
	\$ 30	\$ 30	\$ 100
Research:	20%	10%	4%
	\$ 40	\$ 60	\$ 80
Website	35%	28%	1%
	\$ 70	\$ 168	\$ 20
Total:	\$ 200	\$ 600	\$ 2,000

philanthropists that are likely to support our overall effort or particular activities. We approach them directly and personally with GIF’s “value proposition” –GIF achieves more new clean energy per dollar contributed than any other use of a potential contributor’s monies. Typically, we will request their support for a specific element of GIF’s work, such as the first phase of website development.

In March 2003 GIF began a “friends and family” fund raise, focusing on individuals who know and respect GIF’s management and have given to environmental causes in the past. The goal for this round was \$50,000 by the end of July. GIF exceeded this goal.

GIF’s “value proposition” is that GIF achieves more new clean energy per dollar contributed than any other use of a potential contributor’s monies.

Beginning in September we will expand our efforts with the kick off of a second round in which we approach companies, foundations, and high net worth individuals who may be willing to support GIF based on their business and/or philanthropic interests. A number of companies, foundations, and individuals have a strong commitment to making clean energy a reality and we believe some of them will agree with our goals and will support our approach. Our goal for this second round is \$200,000 by the end of December 2003.

The funds from the second round will support our research, the first two stages of website development, our advisory work, and the planning and preparation of GIF’s investment fund.

A third round of funding raising, scheduled to begin in the first quarter of 2004, will focus in part on monies for the investment fund.

TIMELINE AND MILESTONES

THE NEXT EIGHTEEN MONTHS

	3Q 03	4Q 03	1Q 04	2Q 04	3Q 04	4Q 04
FUND RAISING	\$50k	\$200k			\$600k	
WEBSITE		Basic Info	Database			Advanced Tools
ADVISORY SERVICES	2 Projects		4 Projects		12 Projects	
RESEARCH		Sources/ Strategies Study (Draft)	SROI Metrics (Draft)			
INVESTMENT FUND			1 st Investment	1 Investment	Launch Fund 1 Investment	1 Investment

ACHIEVING SUCCESS

IMPROVING THE PROSPECTS OF FINANCING CLEAN ENERGY PROJECTS

GIF will define success in terms of the amount of public value it produces through clean energy projects. The best opportunity for accomplishing this on a large scale is by improving the financing prospects of well-designed clean energy projects. To this end, GIF's work will aim at helping create a better functioning capital market for clean energy projects, one in which SROI and FROI are better aligned. We will focus our resources on developing easily replicable financing models for types of clean energy projects that have broad application and a high probability of long-term commercial success.

GIF will focus its resources on developing easily replicable financing models for types of clean energy projects that have broad application and a high probability of long-term commercial success.

For the present, GIF's main operational metric for measuring success will be kilowatts of clean energy brought into service. This will serve as a surrogate measure of (1) public benefits such as tons of air emissions reduced per kilowatt hour of electricity generated and (2) the extent to which we are achieving better alignment of SROI and FROI.

Success also means financial sustainability as an organization. GIF's revenue base will gradually shift from a heavy reliance on charitable contributions in the first few years to generating the majority of revenues⁵ through fees for advisory services and financial returns on GIF investments in clean energy projects.

⁵ Excluding charitable contributions to GIF's non-profit investment fund.

FACING THE CHALLENGES

AFFECTING SIGNIFICANT CHANGE, MINIMIZING TRANSACTION COSTS

GIF faces significant challenges in fulfilling its mission. Two of the most significant:

- *Affecting significant, macro-level change in the ability of clean energy projects to secure financing.* GIF runs the risk of being successful on a project-by-project basis but not affecting large scale change. To address this, GIF will place strong emphasis on targeting its work to promote widespread, accelerated adoption of clean energy through increased and more accessible funding and better overall alignment of SROI and FROI. GIF will focus on clean energy projects that have broad application, do not face significant technical, institutional, or regulatory barriers, and are likely to be frequently replicated in the near term.
- *Keeping transaction costs in check.* GIF will face all the transaction costs confronting other participants in the financing of clean energy projects as well as additional costs relating to our tax-exempt status. Attorney fees in particular must be minimized. We plan to develop in-house legal capabilities within two years. In the meantime and thereafter, we will focus diligently on controlling administrative, legal, and other transaction costs.

Other organizational challenges:

- *Maintaining sufficient and consistent revenue levels.* As for any 501 (c) (3) organization, GIF will need to realistically project and meet revenue targets.
- *Maintaining high levels of staff expertise.* GIF staff will be working at the forefront of project financing involving new technologies and applications, some of which will become quite profitable. Consequently, GIF runs the risk of high turnover rates among key staff if the differential between GIF's and the private sector's compensation is too large.
- *Playing an effective role as a nonprofit operating in the world of project finance.* We are charting new territory on the assumption that a nonprofit can play a key role in helping secure financing for clean energy projects. We need to continually assess our direction and activities to assure they constitute a critical use of philanthropic investment in accelerating the adoption of clean energy.

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THE GIF TEAM

THE RIGHT MIX OF EXPERTISE

GIF has over a half century of collective experience structuring innovative financial packages for capital-intensive energy projects. Over the past three years, GIF personnel have been at the forefront of developing comprehensive, multi-source financing strategies for clean energy projects. For the last year, we have been analyzing the roles that a non-profit organization can play facilitating project financing for clean energy projects.

THE BOARD OF DIRECTORS

Daniel M. Kammen Mr. Kammen is Professor of Energy and Society, Professor of Public Policy, and the Director of the Renewable and Appropriate Energy Laboratory at the University of California – Berkeley. His primary areas of interest are science and technology policy focused on energy, development and environmental management; technology and policy questions in developing nations, particularly involving: the linkages between energy, health, and the environment; technology transfer and diffusion; household energy management; renewable energy; women; minority groups; and global environmental change including deep cuts in greenhouse gas emissions and resource consumption.

Jeffrey D. Abbey Mr. Abbey is Director of Business Development for Merix Bioscience, Inc. He has served in similar capacities for other start-up technology companies, focusing on developing joint venture agreements and deal financing structures. He previously practiced corporate law, providing advice on legal matters relating to business development and corporate financing to a range of corporate clients. He received his JD and MBA from the University of Virginia.

Eldon H. Crowell Mr. Crowell is Counsel to the law firm of Crowell & Moring LLP. He is the immediate past-President and a current member of the Board of Directors of Equal Justice Works (formerly the National Association of Public Interest Law). He is a founder and immediate past-President of the Board of the Conservation and Research Center (CRC) Foundation. CRC is a part of the Smithsonian's National Zoological Park. He also is founder of The Took Trust and serves on its Board of Trustees.

John Lingelbach Mr. Lingelbach is GIF's President and founder. Previously, he served as Vice President for Transactions and a member of the Board of Directors of Emergent Energy Group, Inc., which develops ultra-clean distributive energy projects. In this capacity, he worked on project financing, developing project-specific financing strategies utilizing private investment, commercial debt, government funding, and other funding sources. Mr. Lingelbach also has worked in the environmental policy arena, emphasizing improved alignment of environmental and economic interests. He mediated the USEPA and metal finishing industry Common Sense Initiative, the results of which Vice President Gore characterized as the outstanding environmental "reinvention" achievement of the Clinton Administration.

MANAGEMENT

John Lingelbach, President See Board of Directors.

John F. Randall, Executive Vice-President Mr. Randall has been centrally involved in GIF since its inception. He has over 30 years of experience designing and negotiating complex project financing packages. He has held senior management positions at Amsterdam Pacific, a subsidiary of Amro Bank and Bechtel Investments; Samuel Montagu & Co., the merchant banking arm of Hong Kong & Shanghai Banking; and Lloyds Bank of London. For the last few years, he has focused on innovative project financing strategies for clean energy projects.

OTHER KEY PLAYERS

Jan McFarland Ms. McFarland has been advising GIF since its inception. She has worked on energy financing and regulatory matters for Skadden, Arps LLP, as Senior Policy Advisor to the USEPA Assistant Administrator for Air and Radiation, and as Senior Advisor to the Chairman of the California Energy Commission. She also co-founded the Center for Energy Efficiency and Renewable Technologies, a coalition of private energy corporations and environmental organizations dedicated to energy efficiency and renewable energy.

Michael I. Sanders Mr. Sanders and his colleagues are advising GIF on legal matters. He leads the tax practice of Powell, Goldstein, Frazier & Murphy LLP in Washington, DC and is the author of “Joint Ventures Involving Tax-Exempt Organizations.”

Paul Eichenberger, P.E. Mr. Eichenberger has been advising GIF since its inception. He has worked in the alternative energy business for over a decade, previously working in the municipal utility sector. He served as Vice-President of Business Development for a major stationary fuel cell manufacturer and has been actively involved in the development and financing of numerous clean energy projects.

William Coleman Mr. Coleman joined GIF shortly after its inception. He has worked as an independent consultant providing communications support and market analysis to a range of private clients in the environmental, private equity, and renewable energy sectors. He has also served as Legislative Director for the Renewable Energy Action Project.

Jeffrey Sanders Mr. Sanders recently joined GIF. He works in the areas of business development and economic analysis in the energy sector. He has an MBA and is a Ph.D. candidate in Energy Engineering and Economics at the Colorado School of Mines.

THE COUNCIL OF ADVISORS

A Council of Advisors comprising up to fifteen individuals will be established over the next year to assist GIF’s Board and President on a periodic basis with strategic planning, networking, and fund raising.

APPENDIX A

Current GIF Projects

GIF is beginning to provide advisory services on several clean energy projects.

LANDFILL GAS PROJECT

GIF is helping identify funding sources for a landfill gas (LFG) collection and utilization project in Georgia. Landfill gas (methane) that is currently releasing to the environment will be collected and piped to a nearby manufacturing facility for use as a fuel for industrial boilers. Methane is a highly destructive greenhouse gas, twenty-one times more damaging than the carbon dioxide (CO₂) that is emitted by burning the methane. Traditional project financing is not feasible due to low debt to equity ratios in the early years and the inability of the landfill authority to provide a monetary guarantee supporting a minimum level of methane collection.

GIF is assisting the project sponsor to identify SROI-focused funding sources available to LFG projects. Grant, loan, and tax credit programs are increasingly available for such projects because of the significant public benefit derived from collecting and utilizing the methane. GIF is being compensated using a deferred payment formula based on gross project revenues.

SKI AREA PROJECT

GIF is being retained to conduct a financial feasibility study for a ski area in California that is considering installing an initial 1 mW of stationary fuel cells and implementing capital intensive energy efficiency measures. The company's Board of Directors has stated that cost, particularly levels of initial outlays and payback periods will be a critical factor in its decision on future power sources and energy efficiency measures. GIF will identify funding sources and will design a comprehensive financing strategy for the potential projects. GIF will be compensated through fees for services.

INDUSTRIAL PARK PROJECT

GIF is evaluating alternative financing strategies with a municipality that is planning a new industrial park powered entirely by clean on-site power generation. One financing strategy under consideration would involve the municipality on-lending to GIF the proceeds from issuing tax-exempt bonds, with GIF owning or leasing the power plants.

CLEAN ENERGY DEMONSTRATION PROJECT

GIF is beginning the planning phase for a clean energy demonstration facility in Colorado. The facility will enable hands-on analysis of project costs, revenues, and financing strategies for projects utilizing a full range of clean energy technologies.

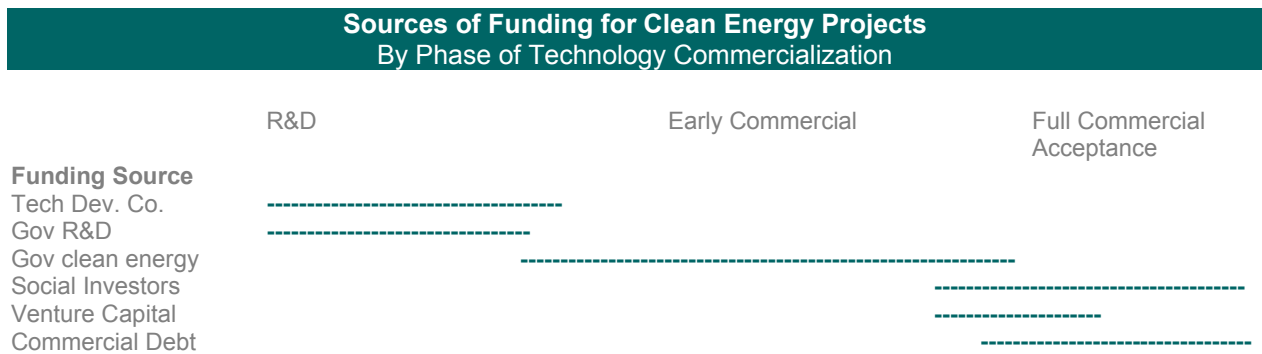
APPENDIX B

A Focus On Clean Energy Projects Utilizing “Early-Commercial” Technologies

Most clean energy projects utilize technologies in the “early-commercial” or “market-entry” phase of development. Financing these projects can be particularly difficult.

Technologies in the “early-commercial” phase face a gap in available funding. Most “pre-commercial” funds—including the company’s “startup” funds and government R&D grants—are no longer available. Private capital markets are not yet accessible or will only provide funding at a high cost to offset the risks inherent in this phase of technology commercialization. Meanwhile, manufacturing and “market-entry” costs are still extremely high and these technologies face stiff cost competition from traditional, fossil-fuel burning power generation technologies. Compounding these factors, clean energy technologies tend to be smaller than traditional power generation sources, resulting in relatively higher fixed transaction costs.

GIF will focus on projects that utilize “early-commercial” technologies. This is GIF’s arena, where capital is least accessible for clean energy projects, and where the most potential exists for accelerating the adoption of clean energy.



Within this arena, we will focus on capital-intensive distributive generation (DG) projects—initially in business sectors such as hospitals, new housing developments and industrial parks, schools and universities, and destination resorts. Such projects can produce outstanding SROI and are easily replicated. And these entities have much to gain; through increased power reliability, lower long term costs, good will gained through taking the lead on clean energy, and/or other factors.

APPENDIX C

What Others Are Doing

Several nonprofit, government, and private entities are doing related work. However, as a collective source of information, advice, tools, and funding they are fragmented and incomplete.

SOURCES OF PROJECT FINANCING INFORMATION

A number of websites offer information on state funding for clean energy projects. These include www.cleanenergyfunds.org, www.ucsusa.org, www.eere.energy.gov, www.eedt.ldr.gov. However, no site currently offers comprehensive information on the full range of funding sources and financing strategies.

SOURCES OF ADVICE/ASSISTANCE

Some private consulting firms—www.ecosecurities.com, www.abb.com and others—offer information resources and assistance.

SOURCES OF PUBLIC FUNDS

Fourteen states have ratepayer subsidized funding programs for energy efficiency and clean energy development, including California's Self Generation Incentive Program and Massachusetts' Renewable Energy Trust.

PRIVATE SOURCES OF CAPITAL

Financial institutions, including New Energy Capital (www.newenergycapital.com), are beginning to establish social or venture capital funds that focus on clean energy projects. A few commercial lenders, such as PFG Energy (www.pfgenergy.com), are working with clean energy projects. However, few institutions work with the small to medium sized projects which define the clean energy landscape.

STRATEGIES FOR INCREASING CLEAN ENERGY PROJECT REVENUES

Some environmental organizations, such as the Bonneville Environmental Foundation (www.b-e-f.org), as well as some states and utilities, are utilizing Renewable Energy Certificates to increase revenues from renewable energy projects.