

Testimony of Reed Hundt
Chief Executive Officer
Coalition for Green Capital
Before the
Committee on Foreign Affairs
Subcommittee on Asia, the Pacific and the Global Environment
United States House of Representatives
July 27, 2010

Thank you Chairman Faleomavaega, Ranking Member Manzullo, and members of the Committee. Mr. Chairman, I am Reed Hundt, CEO of the Coalition for Green Capital (the "CGC"), a non-profit formed for the purpose of developing and advocating tax and finance policies to catalyze private investment that leads to universal, affordable, sustainable, and efficient production and consumption of electricity. The CGC believes that this goal can best be accomplished through a robust network state, national and international banks, financing authorities or trusts that provide long-term, low cost financing for clean energy and energy efficiency projects. Our goal is to allow the private sector to greatly expand its ability to undertake these projects and to create millions of private sector jobs.

I am here today to discuss the need for an international green bank (the "IGB") to complement and support existing governmental and non governmental financing authorities. Before I proceed any further, I would like to commend you Mr. Chairman and the members of the Committee for proposing H. RES. 1552 which brings much needed attention to the critical need to details and implementation

of the commitments made by the United States and others under the Copenhagen Accord.

On the national level, the American Clean Energy Security Act of 2009 (also known as the Waxman-Markey bill), passed last year by the House of Representatives, includes sections (182-191) establishing an independent corporation known as the Clean Energy Development Authority (“CEDA”) that would provide loans, letters of credit, loan guarantees and other credit support to deploy clean energy and energy efficiency projects and technologies. CEDA received very strong bipartisan support, having been approved in Committee by a vote of 51 to 6.

In the Senate, we are supporting a bill to establish CEDA that would be established in the Department of Energy (“DOE”) to support innovative clean energy and energy efficiency technologies and a proposal to establish a not-for profit 501(c)(3) patriotic corporation called the Energy Investment Trust or “EIT” to support the deployment of commercially ready clean energy and energy efficiency projects which will be included in title 36 of the United States Code which covers patriotic societies and similar organizations like the Red Cross and the Boy Scouts. The EIT would not receive any federal appropriation, but it could borrow funds from the Treasury and would, we believe, be scored as having zero budgetary impact because the investment risk would be covered by a credit subsidy fee paid by the borrower. EIT financing would not be backed by the full faith and credit of the federal government. The EIT would cover its initial overhead costs through funding sources other than the federal Treasury, such as from charitable contributions, and would not be a instrumentality of the US government and would not be funded with taxpayer appropriations since its loans are repaid. The EIT would help channel charitable contributions and would be able to loan to state commercial banks in an ear when credit for small projects is evaporating. We think both the CEDA and the EIT are needed but they serve different purposes and fully complement each other.

We have learned that very significant benefits would flow from establishing authorities and trusts like CEDA and the EIT on both a domestic and an international level.

First, the EIT and CEDA would address in whole or in part the cost disadvantages of clean energy verses conventional energy that does not internalize the cost of carbon emissions. It would do so by providing low cost financing that would very substantially reduce the cost of such projects and which would make them cost competitive or much more cost competitive with high carbon emission technologies. This would not be a subsidy and it would not cost the American taxpayer a penny since the financing would be repaid by the borrower.

This would help solve one of the key challenges of developing clean energy and energy efficiency projects. No one wants to drive up the price that people pay for heating, lighting, and air-conditioning, or to deny shareholders of energy companies the capability of sustaining clean investment. During an economic downturn, no one wants to inflict increases in what businesses pay to keep their lights on, do dry cleaning, design software, run computers, or engage in all the myriad activities that our high value-added economy requires to create wealth.

Our studies have shown, for example, that low cost financing of wind projects 4.5% interest rate and 20 year maturity assumed for a loan supported by government guarantee compared to a conventional loan- with a 8.5% interest rate and a 10 year maturity reduces the delivered cost of wind energy by about 40%. This triples the areas of the country that could deliver wind energy at a rate consistent with the existing cost of electricity in the affected areas. I have attached charts explaining these points in much more detail in Attachment A.

Second, a CEDA or EIT would support a very large number of new private sector projects that otherwise would not be built because they are not cost competitive. These projects would benefit private sector investors, utilities, merchant power companies, energy service companies, transmission line builders, contractors, construction companies, and firms with many other skill sets. All of this could be accomplished with a negligible cost impact on the U.S. government.

Third, as the charts in Attachment B show, the domestic projects supported by EIT or CEDA could create millions of new jobs. This job creation benefit will also accrue when an international green bank supports projects outside the U.S. if, as will be the case, the U.S. provides the equipment and some of the personnel for many of these projects.

Fourth, it will take very substantial investments to deploy clean energy and energy efficiency technologies on a meaningful basis. Using an EIT or a CEDA enables small amounts of funds to support large amounts of funding since institutions like an EIT or CEDA could leverage their funds and thus provide far more support for projects than the federal government can afford through direct grants or subsidies. For example, using conservative leverage modeling, we believe CEDA could support \$100 billion of clean energy projects based on \$10 billion of funding. The EIT and CEDA would employ strict risk control measures and adequate reserves to cover any losses, and because they are non-profit institutions, they would have no motive to undertake more risky financing.

Very early into our work on the EIT and CEDA, we realized that all of the efforts to negotiate reductions in the carbon emissions in developed countries would be undercut if the potential growth in carbon emissions in developing countries was not addressed. In that regard, we know that there has been a great deal of debate in Congress over whether the U.S. should address climate change if the rest of the world fails to act since by 2030, global energy demand is expected to be 40% higher than it was in 2007 – and 90% of that increase will come from non-OECD nations¹ These figures suggest that even if developed nations are able to significantly reduce their levels of carbon emissions the overall impact on climate change may be outweighed by the contribution of developing countries to global

¹ See Int'l Energy Agency, World Energy Outlook 2009 at 47 (2009). More recently, the U.S. Energy Information Administration (the "EIA") has affirmed these estimates by predicting that global energy demand is expected to be 49% higher by 2035 than it was in 2007 and that 84% of the increase by 2035 will be attributable to non-OECD countries. See, EIA, International Energy Outlook 2010 Highlights (May 2010).

carbon emissions. However, as has already been evidenced in the difficult discussions on carbon emissions targets, developing countries have a legitimate interest in ensuring that any global targets do not come at the expenses of their future development and need to satisfy energy demands. As a result, it is critically important that efforts to reduce carbon emissions focus on providing developing countries with the right combination of incentives, financial resources and technical assistance to encourage less carbon-intensive means to securing energy supplies for growth and development without compromising meaningful economic development.² Unlike the developed world which often faces the more costly challenge of trying to subsidize or otherwise create incentives for retrofitting existing installed capacity to be less carbon intensive and investing in new infrastructure to incorporate renewable energy sources into the existing grid in an environment of surplus capacity and declining aggregate demand, developing countries by in large need to make new investments in both generation capacity and infrastructure in the coming decades in order to meet their growing energy demand. This presents a tremendous opportunity to more successfully achieve long-term carbon emissions abatement and reduction goals by promoting the least carbon-intensive options for the energy matrices of developing countries. Conversely, the lack of a timely intervention to create incentives for those more optimal choices will mean a far more costly problem in the long-term. Of equal importance, access to a reasonably priced, reliable supply of electricity has long been identified as an essential key to the economic and social development of countries.³ Again, the CGC saw an opportunity and a challenge. As previously noted, the critical link between access to reasonably priced, reliable electricity and development means that developing countries have

² This concern was recently echoed in the U.N. high-level Advisory Group on Energy and Climate Change ("AGECC") call to U.N. members to commit themselves to ensuring universal access to modern energy services to meet basic needs by 2030. See AGECC, "Energy for a Sustainable Future," Summary Report and Recommendations, April 28, 2010.

³ See, e.g., AGECC, *supra*, note 2.

a legitimate concern that global efforts to cap carbon emissions could result in mitigation measures that impact the cost and technologies needed for the supply of electricity and therefore impact their development. On the other hand, policy interventions and instruments that allow for greater investments in electricity generation and infrastructure in developing countries, but with technologies that do not increase (and may in fact reduce) overall carbon emissions would be a win-win. We therefore believe that establishing an international green bank like the IGB, that provides significant amounts of low cost financing to projects that guarantee a clean, sustainable, and affordable energy supply in developing countries is an essential element of any global strategy to ensure that growth in developing countries is compatible with the goal of reducing carbon emissions on a worldwide basis.

Understanding the need for the IGB, the key question remains how such an institution should be funded and operated. As this Subcommittee cited in H. RES. 1552, the Copenhagen Accord represented a critical commitment by the signatories to mobilize \$30 billion for the period 2010-2012, growing to \$100 billion a year by 2020 for climate mitigation and adaptation in developing countries.⁴ Unfortunately, serious budgetary constraints in the United States and Europe have called into question how those goals will be achieved, particularly if the original intent was to commit to new, direct funding by developed country governments through direct cash grants or other foreign assistance to developing countries. We have therefore not been surprised by the news that developed countries are seeking to have existing foreign assistance commitments counted towards those goals, and perhaps most significantly, the recent emphasis by many, including the U.N. Secretary-General's own advisory group on the topic on the need to mobilize the private sector to fill the gap.⁵ We therefore see the IGB

⁴ See Report of the Conference of the Parties (COP) on its fifteenth session, held in Copenhagen from December 7 to 19, 2009, FCCC/CP/2009/11/Add.1, March 30, 2010 (Copenhagen Accord), at 7.

⁵ See "UN Advisory Group seeks to enhance public-private links to boost access to energy," U.N. News Service,

as addressing these challenges by serving a crucial role in leveraging limited government funds to mobilize private sector financing and investment towards achieving these goals and making those targets far more feasible and realistic.

In fact, one of the consistent themes in our research and analysis has been that the sums of investment that will be necessary to satisfy the increasing need and demand for reliable electricity in developing countries is vast and the corresponding need to fulfill that demand in a way that neither the public sector nor development aid can satisfy alone.⁶ Before concluding that there was a need for a new institution, we set out to assess what existing sources of financing, particularly climate financing, might be available to fund the goals that we had identified for the IGB. Our research also indicates that the current international financing mechanisms will be unable to provide the needed funding for clean energy projects in the developing world. While the Clean Development Mechanism (“CDM”) has been a source of funding for energy projects, we found that funding from the CDM has been significantly concentrated on investments in just three countries and in a narrow sector and that the selection and impact of projects funded by the CDM had come under increasing scrutiny.⁷ In addition to the CDM, there are a series of multilateral and bilateral trust funds in addition to the CDM which have historically been the primary source of funding for clean energy and climate mitigation and adaptation projects.⁸ However, these existing

⁶ The AGECC estimates that capital investment of \$35-\$40 billion of capital will be required on average per year in order to meet the commitment of universal access to modern energy services to meet basic needs by 2030, See AGECC, *supra*, note 2. See, also,, Jamal Saghir, “Finance boost is needed to achieve countries’ infrastructure goals,” *Fin Times*, June 7, 2010. Mr. Saghir is a member of the AGECC and also the Director, Energy, Water and Transport at The World Bank.

⁷ *Id.* at 265-266 (stating that 75% of sales revenues from offsets accrue to Brazil, China and India and only 3% of carbon revenues go to low-income countries and abatement action has been concentrated in a small number of industrial gas projects).

⁸ See World Bank, *World Development Report 2010: Development and Climate Change*, 258 & 263, tbls. 6.1 & 6.4 (2010) available at <http://go.worldbank.org/BKLQ9DSDU0>.

sources of climate finance have proven to have certain limitations, particularly as it relates to the types of energy projects that we would anticipate to be funded by the IGB. The various climate funds have created a fragmentation of funding that adds transactions costs, leads to inefficient allocations and limits the scalability of projects.⁹ More importantly, these existing sources of climate finance have not had a significant impact on addressing the need for less carbon-intensive sources of energy in developing countries or in mobilizing the significant amount of private sector investment estimated to be necessary to achieve that goal.¹⁰

Similarly, while The World Bank, the regional development banks and the bilateral development agencies have also been an important source of financing for a range of clean energy and climate mitigation and adaptation projects, the amount of financing that they have provided has been limited when compared to the need. Moreover, these funds have been spread over a very broad range of projects and programs, which have been mostly unrelated to energy issues, and have been largely directed to the public sector.¹¹ Finally, and perhaps most

⁹ See World Bank, *supra* note 8, at 263-264.

¹⁰ See International Energy Agency, *World Energy Outlook 2009* at 47 (2009) (citing the 450 Scenario as requiring US \$10.5 trillion in investment in low-carbon energy technologies and energy efficiency by 2030 including US \$1.7 trillion for energy-related investments and citing the importance of private sector investment to achieve those investment levels). See, also, AGECC, *supra*, note 2. "Energy for a Sustainable Future," Summary Report and Recommendations, April 28, 2010.

¹¹ The Clean Technology Fund ("CTF"), a relatively new trust fund administered by The World Bank, has the potential to address some of the issues that we have identified, but it is still too early to assess how successful it will be in the medium to long term. For example, the CTF program documents expressly contemplate the possibility of extending financing to the private sector and to energy projects. A country's investment plan can designate a portion of funding to be channeled to the private sector and to energy projects (as Mexico has done), but the CTF has a broad mandate, relies on recipient countries to designate investment targets and projects, etc. Moreover, while the amount of work necessary to develop an investment plan should not be underestimated, only eight CTF-co-financed projects had been approved as of July 23, 2010, with one project listed as pending approval (Climate Investment Funds, Project Proposals web page http://www.climateinvestmentfunds.org/cif/current_information_documents). A total of thirteen investment plans from around the world have been endorsed and some \$4.3 billion of CTF co-financing has been allocated to these projects. It is estimated that an additional US \$36 billion will be leveraged in the coming years from

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importantly, these institutions and agencies have a broad mandate to promote development. While they have clearly endeavored to increase their funding and support for increasing access to energy, including clean technology, they must allocate their resources, particularly their management and staff, among a broad range of issues and engagements that are critical to the range of issues that must be addressed. It is unrealistic, impractical to expect these institutions to solve these issues alone or to be singularly focused on the energy gap and the need to reconcile it with a global strategy to abate carbon emissions.

Given the overall opportunity identified by the CGC and the perceived limitations of the existing funding sources and institutions, our Coalition believes that there would be tremendous value in forming the IGB as a non-profit institution similar to the EIT, CEDA and green banks proposed in Great Britain¹² and other countries that would focus specifically on mobilizing low-cost financing for high-impact, national and regional energy projects in developing countries. The IGB could be organized as an international affiliate of national green, infrastructure or development banks or as a stand-alone organization. It would focus on projects that would include (i) investments in clean energy, energy efficiency and other low-carbon alternatives for new generation capacity¹³, (ii) replacing and

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other sources, including the private sector, bringing the total to approximately US \$40 billion. See "Climate Investment Funds set to mobilize US \$40 billion for country-led low carbon growth," The World Bank, March 19, 2010 and "Making the Most of Public Finance for Climate Action," Issues Brief #2, The World Bank, May 2010. For a description of the CTF program, see The World Bank Climate Investment Funds <http://www.climateinvestmentfunds.org/cif/>.

¹² Since February 2010, the U.K. Green Investment Bank Commission has been working to identify how Britain can better support and accelerate the private sector investment required to deliver the U.K.'s transition to a low carbon economy. See "Unlocking investment to deliver Britain's low carbon future," Report by the Green Investment Bank Commission, June 2010, <http://www.bobwigley.co.uk/wp-content/uploads/2010/02/Unlocking-investment-to-deliver-Britains-low-carbon-future-Green-Investment-Bank-Commission-Report-final-June-2010.pdf>

¹³ In his remarks, Senator Kerry cites a recent sub-critical coal-fired power generation project in Brazil. Senator John F. Kerry, U.S. Senate, Building a Twenty-First Century Development Bank: New Challenges, New

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retrofitting existing carbon-intensive generation and buildings with renewable energy sources or equipment that significantly reduces or eliminates carbon emissions, (iii) investments in transmission and other infrastructure to allow the adoption of renewable energy sources, regional energy solutions and integration which can reduce the need for new investments in capacity¹⁴, (iv) investments in technologies that reduce oil use and (v) other transformative investments that address electricity needs while reducing carbon emissions.¹⁵

We have been working with like-minded groups in China, Brazil and Europe to develop this concept and to think through how the IGB could best be funded. Ideally, the IGB would receive initial funding by borrowing from the U.S, Europe, China, Brazil and other large countries and would fund projects in less developed countries. The IGB would provide financial support so that clean energy and energy efficiency projects are able to attract a wide range of private sector lenders including financial institutions, pension funds and insurance companies,

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Priorities, Remarks at the World Bank (Nov. 18, 2009) (remarks as prepared for delivery available at <http://go.worldbank.org/KL290KV1L0>). In addition, developing countries like Botswana, Guatemala, India and Oman have announced projects to develop new coal-fired power generation plants in the past couple of years and Syria announced a new 250 MW oil and gas project. More significantly and recently, Eskom, the South African state-owned electricity utility has recently mandated J.P. Morgan and Credit Suisse to help it in the financing of two US \$15 billion coal-fired generation plants.

¹⁴ One example of a regional energy project intended to promote integration to address energy needs is the Electric Interconnection System for Central American Countries (known as SIEPAC, for its initials in Spanish), a 1,800-kilometer network of transmission lines that stretches from Colombia to Mexico and which is nearing completion, was intended to facilitate regional power generation projects. See, generally, Inter-American Development Bank, SIEPAC Fact Sheet available at http://www.iadb.org/news/docs/Fact_Sheet_SIEPAC.pdf. Similarly, regional energy projects have been suggested as an approach to addressing energy needs in Africa. See, Agence Française de Développement and World Bank, *Africa's Infrastructure: A time for transformation*, at 181 (Vivien Foster and Cecilia Briceño-Garmendia, eds., 2010) <https://www.infrastructureafrica.org/aicd/documents>

¹⁵ For example, this "green bank" could provide low-cost financing for the infrastructure necessary to use the natural gas currently being flared in Nigeria for local electricity generation. See, generally, Fiona Harvey, "Heating Up", *FIN. TIMES*. Nov. 2, 2009.

which in turn would serve to lower the cost of financing to project developers and increase their return. As has been shown in various studies, there is a class of institutional investors, including pension funds and insurance companies, whose long-term liabilities allow them to have longer investment horizons and to desire fixed-income assets, which are a good match for the longer tenors sought by the developers of infrastructure projects. Using capital provided by the contributing countries and from public sector investors which would have no or low return requirement, the IGB would have the ability to provide the required credit enhancements discussed above and lower the cost of financing to project developers. As with the EIT, IGB loans, guarantees and other credit support would not be backed by the full faith and credit of the countries from which it borrows. Given that the cost of financing to these types of projects is strongly tied to the potential credit risk of the borrower and the quality of its offtake contracts, the CGC would anticipate that the IGB would provide a range of credit enhancements to make these targeted projects financeable, including loan guarantees, partial risk and credit guarantees, and insurance products that “wrap” bonds and other debt securities issued by the project company. Generally speaking, the CGC expects that the models for these types of instruments include the products of multilateral development banks (MDBs), like the Multilateral Investment Guarantee Agency (MIGA), credit guarantees provided by export credit agencies, the DOE loan guarantee programs, and others.

The IGB would differ from existing proposals in two important respects. First, it would have the institutional independence necessary to focus on this specific set of investment objectives. Second, it would have to have the flexibility of working with a broad range of partners, including development banks, existing climate financing sources as well as the ability to attract private and public donors and institutional investors. To achieve its mission of providing low-cost financing to mobilize private sector investment, the IGB would (i) leverage the analytical work of other institutions, like The World Bank, International Renewable Energy Agency (IRENA) and the International Energy Agency (IEA), (ii) use a range of financial instruments and techniques to mobilize financing from commercial

banks and international capital markets, (iii) partner and coordinate with MDBs and bilateral aid agencies, particularly on development strategies and projects that ensure the sector reforms and public sector engagement and support that are essential for the success of an IGB-funded project, (iv) develop and pursue complementary investments with MDBs, bilateral aid agencies, existing climate funds, and private donors, and (v) develop specialized expertise in clean energy and energy efficiency projects in developing countries.

To summarize, we see the IGB as enabling the private sector to develop countless clean energy and energy efficiency projects in developing countries. It would effectively leverage funds to create the liquidity needed to bring these projects to scale around the world. These projects would benefit the U.S. companies and workers that produce the needed equipment and which undertake the projects. It would enable the U.S. to partner with countries like China and Brazil in reducing carbon emissions. It would be a partner to the existing international financial institutions whose engagement is primarily focused on the public sector in developing countries.

We are in the early stages of developing the IGB concept and structure and hope that we can seek the support, input and advice of this Committee and its members and staff in bringing an IGB to fruition.

If we lower the cost of capital for clean energy generation and maintain existing tax policy, clean electricity can compete profitably in all states

Assumptions:	EIT: High CapEx	2009 Bank Financing
Capital Expenditures	\$2,750/KW	\$2,750/KW
Tenor	20 Years	10 Years
Wind Case / Coverage	P90 Wind @ 1.0x Coverage	P99 Wind @ 1.0x Coverage
Revenue Assumptions	1. \$0.072 / KWh Merchant @ P90, 3.5% escalator 2. \$0.072 / KWh Merchant @ P50 - P90, 1.0% escalator	1. \$0.112 / KWh PPA @ P90, 3.5% escalator 2. \$0.112 / KWh Merchant @ P50 - P90, 1.0% escalator
Balance @ Maturity	Balance repaid in full	Balance repaid in full
Interest Rate	4.5%; 30yr Treasury + 25bps	8.5%; 30yr Treasury + 425bps
Amortization Schedule	No paydown year 1-9; then increasing over time	Full Cash Sweep
IRR to Equity Holder	15.5%	15.2%
Debt to Equity Ratio	4:1	3:2

Prepared by a private equity firm based on data from a major independent wind company

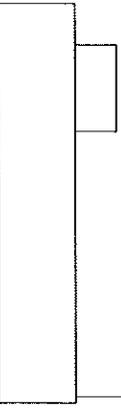
Notes:

- Assumes that all EBITDA from the project is financeable
- CAPEX costs do not include transmission
- The CAPEX here is at the high end of the range for wind projects
- The two cases describe the identical project, but commercial banks will finance a more conservative wind case
- The two cases assume the sale of identical quantities of electricity

Low-cost financing reduces the price of this actual wind project to the point of being cost-competitive with carbon emissions-intensive generation:

- With financing currently made available to clean energy projects, the delivered cost of electricity to the consumer will need to rise in order to maintain a 15% internal rate of return.
- With low-cost financing provided by the Energy Independence Trust, the internal rate of return can be maintained while keeping the cost to consumers at or below current delivered electricity costs (see highlighted sections above, where the cost of delivered electricity is reduced by 4 cents per kilowatt hour because of the low-financing offered in the left column versus available bank financing in the right column).

1. Monetizable tax attributes (such as the 1603 cash grant or a refundable ITC) does not include MACRS
2. Model assumes monetizable tax attributes can be monetized in year 1 of loan, without cost
3. MACRS is assumed to be utilized in the form of NOLS that are carried forward
4. The IRR to equity holder is higher than the ~15% due to the non-financeable revenue streams



At today's lending rates (without low cost financing enabled by a Energy Independence Trust), the "sweet spot" (IRR of over 10%) for renewable projects is limited

Commercial Bank Financing 8.5% at 60% leverage, with current tax policy, \$2000/kw

	Wind Project Capacity Factor										
	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%	25.0%	22.5%	20.0%		
22.0%											
\$0.090	22.0%	19.8%	17.6%	15.5%	13.5%	11.5%	9.6%	7.7%	5.8%		
\$0.085	20.0%	18.0%	16.0%	14.1%	12.2%	10.4%	8.6%	6.8%	5.0%		
\$0.080	18.1%	16.2%	14.4%	12.6%	10.9%	9.2%	7.5%	5.8%	4.2%		
\$0.075	16.2%	14.5%	12.8%	11.2%	9.6%	8.0%	6.5%	4.9%	3.4%		
\$0.070	14.4%	12.8%	11.3%	9.8%	8.3%	6.9%	5.4%	4.0%	2.6%		
\$0.065	12.6%	11.2%	9.8%	8.5%	7.1%	5.7%	4.4%	3.1%			
\$0.060	10.9%	9.6%	8.3%	7.1%	5.8%	4.6%	3.4%	2.0%			
\$0.055	9.2%	8.0%	6.9%	5.7%	4.6%	3.5%	2.3%				
\$0.050	7.5%	6.5%	5.4%	4.4%	3.4%	2.3%					
\$0.045	5.8%	4.9%	4.0%	3.1%	2.0%						
\$0.040	4.2%	3.4%	2.6%								
\$0.035	2.6%	1.6%									

Price/kwh with 2% esc.

--The boxed area represents commonly encountered capacity, pricing for wind generation.

--The shaded scenarios deliver greater than 10% Internal Rate of Return, which is considered the minimum for project finance.



Prepared by a private equity firm based on data from a major independent wind company
 Note: Capacity factor is actual amount of power produced over time divided by nameplate capacity

With low cost financing enabled by an Energy Independence Trust loan or guarantee, the "sweet spot" expands significantly

Green Financing Institution Financing 4.5% at 80% leverage, with current tax policy, \$2000/kw

	Wind Project									
	Capacity Factor									
	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%	25.0%	22.5%	20.0%	
\$0.090	51.6%	45.3%	39.1%	33.1%	27.4%	21.9%	17.0%	12.5%	8.7%	
\$0.085	46.0%	40.2%	34.5%	28.9%	23.7%	18.8%	14.4%	10.5%	7.1%	
\$0.080	40.5%	35.1%	29.9%	24.9%	20.2%	15.9%	12.1%	8.7%	5.6%	
\$0.075	35.1%	30.2%	25.5%	21.1%	17.0%	13.2%	9.9%	6.9%	4.3%	
\$0.070	29.9%	25.5%	21.4%	17.5%	14.0%	10.8%	7.9%	5.3%	2.7%	
\$0.065	24.9%	21.1%	17.5%	14.2%	11.2%	8.5%	6.0%	3.8%		
\$0.060	20.2%	17.0%	14.0%	11.2%	8.7%	6.4%	4.3%	1.9%		
\$0.055	15.9%	13.2%	10.8%	8.5%	6.4%	4.4%	2.3%			
\$0.050	12.1%	9.9%	7.9%	6.0%	4.3%	2.3%				
\$0.045	8.7%	6.9%	5.3%	3.8%	1.9%					
\$0.040	5.6%	4.3%	2.7%							
\$0.035	2.7%	1.3%								

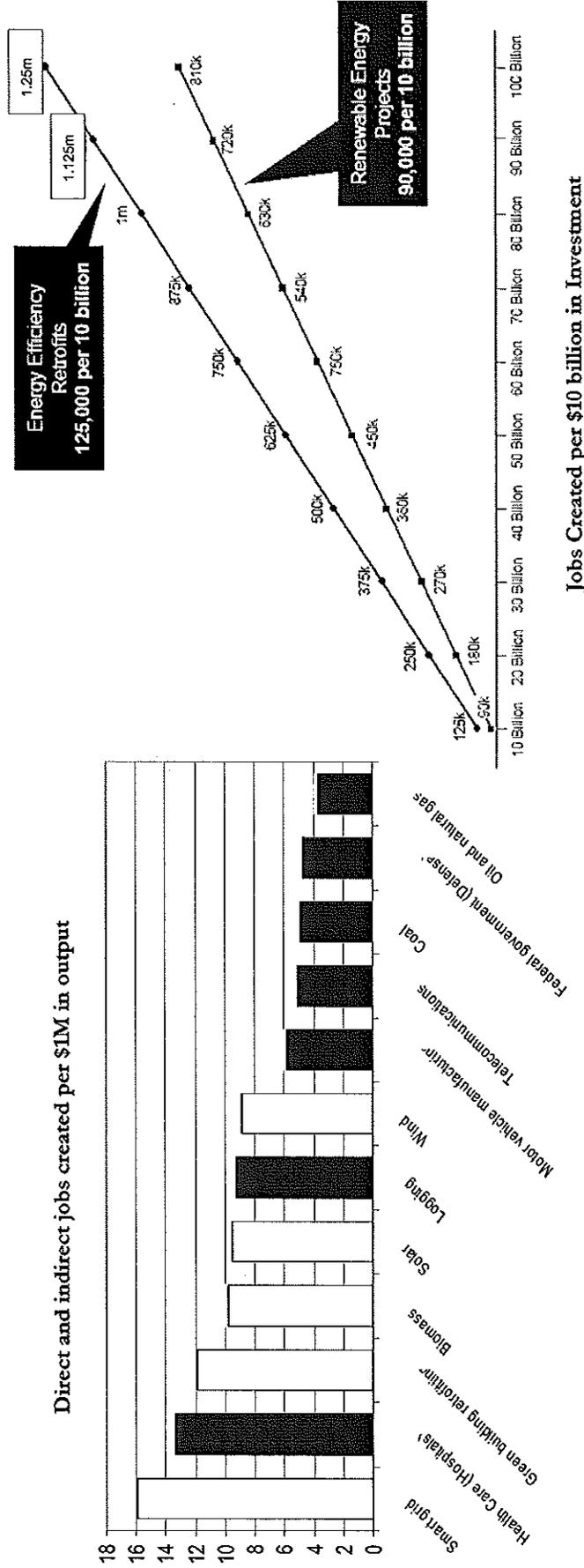
--The shaded scenarios increase feasible wind generation by approximately 120 GWs (estimate).

Price/kwh
with
2% esc.

Prepared by a private equity firm based on data from a major independent wind company
Note: Capacity factor is actual amount of power produced over time divided by nameplate capacity



Efficiency and clean electricity generation will provide work for those who currently have none



• Short-term Goal of the EIT – Provide low-cost financing support for rapid deployment of clean energy projects, including residential sector and small business activities, in areas impacted by the Gulf of Mexico oil spill. Projects eligible for financing support would be limited to commercially ready renewable energy, energy efficiency, clean energy job training, and oil consumption reduction projects that can be deployed quickly to provide immediate economic benefits to help offset adverse economic impacts of the oil spill.

Source: PERI, "The Economic Benefits of Investing in Clean Energy", June 2009; Bureau of Labor Statistics Employment Requirements Matrix