

FOR CONSIDERATION

January 21, 2010

TO: The Directors

FROM: Dennis M. Mullen

SUBJECT: Kingston (Ulster County) – Solartech Renewables Capital – Downstate Regional Projects – Convertible Loan

REQUEST FOR: Findings and Determinations Pursuant to Section 10 (g) of the Act; Authorization to Adopt the Proposed General Project Plan; Authorization to Make a Loan and to Take Related Actions

General Project Plan

I. Project Summary

Borrower: Solartech Renewables LLC (“Solartech” or the “Company”)

ESD* Investment: A convertible loan of up to \$2,000,000 to be used for a portion of the cost of the purchase of machinery and equipment.

* The New York State Urban Development Corporation doing business as the Empire State Development Corporation (“ESD” or the “Corporation”)

Project Location: 300 Enterprise Drive, Kingston, Ulster County

NYS Empire Zone
(or equivalent): Kingston Empire Zone

Proposed Project: The establishment of a manufacturing facility for advanced photovoltaics, including the lease and renovation of 15,000 square feet of former IBM space in Kingston and the purchase and installation of new machinery and equipment.

ESD Incentive Offer Accepted: November 9, 2009

Project Completion: Anticipated March to May 2010

Number of Employees at Project Location:

Initial employment at time of ESD Incentive Offer:	0
Current employment level:	0
Minimum employment on January 1, 2016:	300

Security: Sole first lien on \$2,222,300 million of new Turnkey equipment and spare parts.

Borrower Contact: Todd Roberts, Chairman & CEO
300 Enterprise Drive, Suite 232
Kingston, NY 12401
Phone: (845) 514-9906

Anticipated
Appropriation
Source: Downstate Regional Projects

ESD Project No.: W784

Project Team:	Origination	Paul Taxter
	Project Management	Brendan Healey
	Legal	Fred Eisenstein
	Affirmative Action	Denise Ross
	Finance	Ross Freeman
	Environmental	Soo Kang

II. Project Cost and Financing Sources

<u>Financing Uses</u>	<u>Amount</u>
Turnkey Equipment and Spare Parts	\$2,100,000
Turnkey Consumables	1,200,000
Other Equipment	300,000
Leasehold Improvements	200,000
Labor, Rent and Utilities prior to commercial launch	750,000
Raw Materials expansion after commercial launch	1,700,000
Indirect/Soft Costs	100,000
Underwriters Laboratory Listing	<u>100,000</u>
Total Project Costs	<u>\$6,450,000</u>

<u>Financing Sources</u>	<u>Amount</u>	<u>Percent</u>	<u>Rate/Term/Lien</u>
ESD-Convertible Loan	\$2,000,000	31.0%	3%/7 yrs/Sole 1 st on M&E*
Private Equity Fund Loan	1,000,000	15.5%	10%/2 yrs/Blanket lien**
NYSERDA Grant	1,500,000	23.3%	
The Solar Energy Consortium Grant	500,000	7.8%	
Company Equity	<u>1,450,000</u>	<u>22.5%</u>	
Total Project Financing	<u>\$6,450,000</u>	<u>100.0%</u>	

*Sole first lien on \$2,222,300 million of new Turnkey equipment and spare parts.

**Blanket lien on assets, subordinate to ESD lien on \$2,222,300 million of new Turnkey equipment and spare parts.

III. Project Description

A. Background

Solartech was formed in July 2009 to pursue the development of a manufacturing facility for photovoltaic panels and systems. Its operations to date have been primarily focused on organizational and fundraising activities, with some small sample sales of systems included as part of those efforts. The Company is targeting a market share in the Northeastern U.S. of 3% to 5%. Its anticipated direct and indirect customers include utilities and large scale industrial or independent power producers for the majority of the plant's capacity, and smaller commercial and residential customers for a more predictable baseline demand for up to half of the plant's capacity, which is anticipated to ensure monthly profitability between large projects. Solartech's primary competitors will be other established manufacturers of polycrystalline silicon solar panels, and to a lesser extent, manufacturers of thin film solar panel products. These competitors include First Solar, BP Solar, General Electric, Evergreen Solar, Sharp, Sanyo, Canadian Solar and Sun Power. The Company believes that this planned facility will be the only American-owned solar panel manufacturing plant operating in the eastern United States (other than a Federal Prison Industries, Inc., also known as UNICOR, facility of similar size, which is restricted to selling its products and services to Federal government agencies). Currently, most of the solar power generating equipment deployed in New York is manufactured overseas, and the related job opportunities and manufacturing knowledge (and related Research & Development and intellectual properties) are exported offshore as a result.

Todd Roberts is the founder and Chairman of Solartech. Mr. Roberts has a proven track record of success as an entrepreneur and, separate from this project, has established four successful multimillion dollar businesses in the past fifteen years. Mr. Roberts has identified key individuals with the required depth of experience to serve as the primary team members and employees of Solartech. In addition, the project is being developed in conjunction with The Solar Energy Consortium ("TSEC"). TSEC is an industry-led not-for-profit corporation that was formed in June 2007 to meet New York State's demand for renewable energy and sustainability. TSEC's partners include universities and laboratories whose scientists and engineers are advancing the leading edge of photovoltaic technology. The turnkey equipment provider for the project is Spire Corporation (NASDAQ:SPIR), which has more than 25 years of experience in the solar business and is the

world's leading supplier of the turnkey manufacturing equipment needed for this facility. Spire Corporation has been the turnkey supplier in the successful launch of more than two dozen similar factories worldwide during the past several years, and has a proven track record of providing post-sale manufacturing, technical and end user sales assistance to its customers in order to stimulate the success and expansion of its customers' facilities.

The overall market for Solartech's products is growing at a rate of 40% per year and this growth rate is expected to accelerate as the cost of producing solar panels continues to decline. Support from Federal and State governments is also strong and increasing as renewable portfolio standards are introduced and the U.S. moves forward with its emerging policies to combat global warming. The rapid market expansion provides opportunities for Solartech.

As a start-up company, Solartech needs various forms of assistance in order to establish its new facility and headquarters. Solartech was recently awarded a \$1.5 million grant from NYSERDA. In addition, Solartech has been awarded a \$500,000 grant from the U.S. Department of Energy (through TSEC) and has a commitment for \$1,000,000 in financing from a commercial private equity fund. Prior to securing these funds, Solartech approached ESD with the need for development financing. At the same time, Solartech had been considering the project at a site that was identified in New Jersey, for which New Jersey was offering substantial incentives totaling \$3,800,000 through established programs specifically for renewable energy manufacturing projects. In order to induce the Company to proceed with the project in New York State, ESD offered a \$2,000,000 convertible loan to assist with the project in Kingston. Solartech accepted the offer in November 2009. As a result of the project, Solartech anticipates that its manufacturing operation can continue to grow substantially over the next 5 years, creating 300 new jobs by 2016. Without ESD's and NYSERDA's assistance, it is quite certain that this project would have occurred in New Jersey.

B. The Project

The project will establish a manufacturing facility for photovoltaic panels and systems at Tech City in Kingston. Tech City is a 2.5 million-square-foot, mixed-use business campus offering space for office, technology, industrial and commercial users. The project includes the lease of a 15,000-square-foot facility, leasehold improvements and the purchase and installation of machinery and equipment. Machinery and equipment for the initial production phase includes a 12 megawatt photovoltaic module manufacturing line (including an automated stringer and industrial laminator), vehicles, warehousing racking equipment and raw materials.

The initial 12 megawatts per year project is scheduled to be completed between March and May 2010. The turnkey production line to be purchased by Solartech is modular in design and Solartech expects to be able to expand its production capacity to at least 25 megawatts per year within two years, which it will be able to accommodate within the initial 15,000-square-foot facility. Further expansion would require expanding into additional space in the same building, which is currently available with options provided to Solartech, or moving into other space within Tech City that has been identified as available or becoming available in the future.

Evaluated over a seven-year period, the following are anticipated project impacts (dollar

values are present value):

- Fiscal benefits to NYS government from the project are estimated at \$5,823,549;
- Fiscal cost to NYS government is estimated at \$1,804,156;
- Project cost to NYS government per direct job is \$13,613;
- Project cost to NYS government per job (direct plus indirect) is estimated at \$9,060;
- Ratio of project fiscal benefits to costs to NYS government is 3.23:1;
- Fiscal benefits to all governments (state and local) are estimated at \$10,103,423;
- Fiscal cost to all governments is \$1,804,156;
- All government cost per direct job is \$13,613;
- All government cost per total job is \$9,060;
- The fiscal benefit to cost ratio for all governments is 5.60:1;
- Economic benefits (fiscal plus total net resident disposable income from project employment) are estimated at \$56,394,375, or \$283,196 per job (direct and indirect);
- The economic benefit to cost ratio is 31.26:1;
- Project construction cost is \$300,000 which is expected to generate 2 direct job years and 1 indirect job year of employment;
- For every permanent direct job generated by this project, an additional 0.51 indirect jobs are anticipated in the state's economy;
- The payback period for NYS costs is 4 years.

C. Financial Terms and Conditions

1. The Company shall pay a commitment fee of 1% of the \$2,000,000 loan (\$20,000) at the time of Second Disbursement. In addition, at the time of closing, the Company will reimburse ESD for all out-of-pocket expenses incurred in connection with the project.
2. The Company will demonstrate no material adverse change in its financial condition prior to closing.
3. The Company or the Company's owners will contribute at least 10% in equity (\$645,000) to the project. Equity is defined as any non-debt source of capital, and should be auditable through Company financial statements or Company accounts, if so requested by ESD.
4. Up to \$2,000,000 will be disbursed to Borrower in two installments as follows:
 - a) an Initial Disbursement of an amount equal to 90% of the deposit required for Turnkey equipment and spare parts (approximately \$540,000*) upon submission of order of Turnkey equipment and spare parts totaling \$2,222,300 and execution of a lease for 15,000 square feet of space at Tech City, assuming that all project approvals have been completed and funds are available;
 - b) a Second Disbursement of an amount equal to the remainder of the ESD loan (approximately \$1,460,000*) will be disbursed upon receipt of Turnkey equipment and spare parts totaling \$2,222,300 (full order including installation and consumables is \$3,300,000), provided Grantee is otherwise in compliance with program requirements;

*As of the date of the ESDC Board meeting, Solartech was still negotiating the payment amounts to the equipment provider.

Total ESD loan shall not exceed 90% of the collateralized Turnkey equipment and spare parts. First Disbursement will be made upon presentation to ESDC of an invoice and such other documentation as ESDC may reasonably require, and execution of loan and security documents satisfactory to ESDC. Second Disbursement will be made upon execution of loan and security documents and granting ESDC a sole first lien on \$2,222,300 in new Turnkey equipment and spare parts, satisfactory to ESDC. Further closing documentation, including lien searches, landlord waiver and insurance requirements, will be specified in the loan documents. Expenses must be incurred on or after November 9, 2009 to be considered eligible project costs. All disbursements must be requested by December 31, 2012.

5. ESD may reallocate the project funds to another form of assistance, at an amount no greater than \$2,000,000, for this project if ESD determines that the reallocation of the assistance would better serve the needs of the Company and the State of New York. In no event shall the total amount of any assistance to be so reallocated exceed the total amount of assistance approved by the Directors.
6. In consideration for the making of the Loan, if Borrower achieves the Employment Goals set forth in column B of the table below, the loan principal will be forgiven (i.e. “converted” to a grant), pro rata (33.33% per year), starting January 1, 2016. The Grantee’s number of Full-time Permanent Employees shall be deemed to be the greater of the number as of the last payroll date in the month of December for such year or the average employment for the 12 month period computed by quarter.

Required Employment	300
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A	B
Reporting Date	Amount of Loan Principal Forgiven
February 1, 2016	33.33%
February 1, 2017	33.33%
February 1, 2018	33.33%

7. ESD will take a sole first lien on \$2,222,300 of new Turnkey equipment and spare parts, perfected on the date of delivery.
8. The Company will submit to ESD annual auditor’s compilation reports and quarterly internal financial statements certified by an officer of the Company.

IV. Statutory Basis – Downstate Regional Projects

The project was authorized in the 2008-2009 New York State budget and reappropriated in the 2009-2010 New York State budget. No residential relocation is required as there are no families or

individuals residing on the site.

VI. Environmental Review

ESD staff has determined that the project constitutes a Type II action as defined by the New York State Environmental Quality Review Act (“SEQRA”) and the implementing regulations of the New York State Department of Environmental Conservation. No further environmental review is required in connection with the project.

VII. Affirmative Action

ESD’s Non-Discrimination and Affirmative Action policy will apply. The Company is encouraged to include minorities and women in any job opportunities created by the project and to solicit and utilize Minority and Women-owned Business Enterprises for any contractual opportunities generated in connection with the project.

VIII. ESD Financial Assistance Subject to Availability of Funds and Additional Approval

The provision of ESD financial assistance is contingent upon the availability of funds and the approval of the State Division of the Budget.

IX. Additional Submissions to Directors

Resolutions
New York State Map
Project Finance Memorandum
Cost-Benefit Analysis

January 21, 2010

Kingston (Ulster County) – Solartech Renewables Capital – Downstate Regional Projects
Convertible Loan – Findings and Determinations Pursuant to Section 10 (g) of the Act;
Authorization to Adopt the Proposed General Project Plan; Authorization to Make a Loan
and a Grant and to Take Related Actions

RESOLVED, that on the basis of the materials presented to this meeting, a copy of which is hereby ordered filed with the records of the Corporation, relating to the Solartech Renewables Capital -- Downstate Regional Projects Convertible Loan Project (the “Project”), the Corporation hereby determines pursuant to Section 10 (g) of the New York State Urban Development Corporation Act of 1968, as amended (the “Act”), that there are no families or individuals to be displaced from the project area; and be it further

RESOLVED, that the Corporation does hereby adopt, subject to the requirements of Section 16(2) of the Act, the proposed General Project Plan (the “Plan”) for the Project submitted to this meeting, together with such changes therein as the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) may deem appropriate, a copy of which Plan, together with such changes, is hereby ordered filed with the records of the Corporation; and be it further

RESOLVED, that upon written finding of the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) that no substantive negative testimony or comment has been received at the public hearing held on the Plan, such Plan shall be effective at the conclusion of such hearing, and that upon such written finding being made, the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) be, and each of them hereby is, authorized to make to Solartech Renewables LLC a loan for a total amount not to exceed Two Million Dollars (\$2,000,000) from the Downstate Regional Projects, for the purposes, and substantially on the terms and conditions, set forth in the materials presented to this meeting, with such changes as the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) may deem appropriate, subject to the availability of funds and the approval of the State Division of the Budget; and be it further

RESOLVED, that the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) be, subsequent to the making of the loan and grant, and each of them hereby is, authorized to take such actions and make such modifications to the terms of the loan or grant or collateral securing the loan as he or she may deem necessary or appropriate in the administration of the loan and grant; and be it further

RESOLVED, that the provision of ESD financial assistance is expressly contingent upon: (1) the approval of the Public Authorities Control Board, if applicable, and (2) receipt of all other necessary approvals; and be it further

RESOLVED, that the Chairman and Chief Executive Officer-Designate of the Corporation or his designee(s) be, and each of them hereby is, authorized in the name and on behalf of the Corporation to execute and deliver any and all documents and to take all actions as he or she may

in his or her sole discretion consider to be necessary or proper to effectuate the foregoing resolutions.

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