

Facesheet

(Tick ✓ one) Project seeking APEC funding Progress Report Evaluation Report
 (Tick ✓ one) [] Operational Account [] TILF Special Account [✓] Self-funded Project

Project number: <i>(To be filled in by Secretariat)</i>		Date received by Secretariat:	Late / Not late <input type="checkbox"/> <input type="checkbox"/>
Name of Committee/Working Group: Expert Group on New and Renewable Energy Technologies/ Energy Working Group (EWG)			
Title of Project: APEC 21st Century Renewable Energy Development Initiative (Collaborative II): Greenstar Micro-Enterprise Project Phase 2—Replicating Solar Power and Internet Connectivity Concept for Sustainable Development			
Proposing APEC Member: USA			
Co-sponsoring APEC Member(s): Australia, Canada, China, Hong Kong- China, Japan, Korea, Malaysia, Mexico, New Zealand, Chinese Taipei			
Project Overseer: Name, Title and Organization Mr. Andre Van Rest, APEC Program Manager (Male) U.S. Department of Energy			
Postal address: 1000 Independence Ave, SW Washington, DC 20585		Tel: 1-(202) 586-9793 Fax: 1-(202) 586-1605 Email: andre.vanrest@hq.doe.gov	
Financial Information	Total cost of proposal (US\$): USD\$90,000	Amount being sought from APEC Central Fund (US\$): \$0.00 (100% self-funded by USA)	
Type of Project: <input type="checkbox"/> seminar/symposium <input type="checkbox"/> short-term training course <input type="checkbox"/> survey or analysis and research <input type="checkbox"/> database/website XX others Technology deployment			
Project start date: June 2002 (tentative)		Project end date: January 2004 (tentative)	
Project Purpose: The purpose of this Project is to bring solar power and micro-enterprise to multiple remote communities based on the field-proven Greenstar concept, which delivers a solar-powered center with a link to the internet. This center provides access to global markets for locally manufactured products, including music, art, and photography. The cultural products will be digitised in the village, then made immediately available through an e-commerce web site. A majority of the revenues from sale of this “digital culture” will be returned to the community to support expanded education, health care and employment programs. This micro-enterprise project, to be located in the Ngari region of western Tibet, represents a second phase of Collaborative II under the APEC 21st Century Renewable Energy Development Initiative. Under the first phase of the Collaborative, a village in Lhasa Prefecture, Tibet is successfully being developed based on the Greenstar concept. This second phase would prove concept replication, and could lead to Greenstar communities in Indonesia or other APEC economies in the future.			
Signature of Project Overseer: <i>(Separate written confirmation acceptable for email submission)</i>			
		Date:	

Signature of Committee Chair/WG Lead Shepherd:	<i>(Not applicable to Progress Report and Evaluation Report)</i>
<i>(Separate written confirmation acceptable for email submission)</i>	Date:

Format for Projects Seeking APEC Funding

This format should be completed with reference to the Guidebook on APEC Projects. It is recommended that the “Guide to Strengthening Project Management and Performance” would be a useful reference. Both Guides are available on the APEC Secretariat website at www.apecsec.org.sg

Please note that items followed by an asterisk () fall within the category of criteria which relate to “APEC values” in the **Criteria of Assessment of APEC projects** set out in Annex B.*

Please provide your answers in point form or as succinctly as possible below each paragraph heading.

A. Project Design

Project

01. Name of project.

APEC 21st Century Renewable Energy Development Initiative (Collaborative II): Greenstar Micro-Enterprise Project Phase 2—Replicating Solar Power and Internet Connectivity Concept for Sustainable Development

02. Name of the working group or committee taking responsibility for the project and the dissemination of its results.

Expert Group on New and Renewable Energy Technologies

Objectives

03. Describe briefly how you will measure your results (in the short and longer term) to know if your project has been successful. (You must provide detailed assessment measures in paragraph 19).

In the short term, the project will bring a solar-powered community center into an off-grid village in Tibet, demonstrating the role of clean energy technology for delivery of education and health care. This facility will prove the importance of photovoltaics for providing remote electric power to improve the quality of village life. In the longer term, the community will demonstrate successful replication of the Greenstar concept within a region and the center

will enable micro-enterprise and income development for the benefit of the community. As the project concept expands to more villages, networks of connected communities can share experiences and regionally knowledge bases.

04. How, briefly, this project responds to the priorities set by APEC Leaders and Ministers, as evidenced by parts of the APEC Action Agenda including Action Program, work plan, vision statement, and policy statement that relate to this project.

The project responds to the Fifth Ministerial Meeting (1993) Declaration:

Energy Cooperation

Ministers noted the vital importance of secure and balanced energy supplies and rational energy use for sustained economic development and protection of the environment. They welcomed technology and policy exchanges on energy efficiency, clean coal technology and renewable energy, and in particular were encouraged by active business/private sector participation in APEC technical energy workshops and seminars.

This project furthers the six priority themes declared by APEC Leaders at their meeting in The Philippines in November 1996, as issues relating to each respective theme will be examined:

- (i) Developing human capital: the level of education and training needed for renewable energy technology utilization and options for providing that education and training at a low cost will be considered;
- (ii) Fostering safe, efficient capital markets: securing investment in new and renewable energy projects is a barrier; tapping local capital markets is an issue that will be covered;
- (iii) Strengthening economic infrastructure: in addition to the issue of investment mentioned above, local manufacturing and parts distribution systems will be reviewed;
- (iv) Harnessing technologies of the future: the sum and substance of the project;
- (v) Promoting environmentally sustainable growth: one of the significant advantages of renewable energy is that its use is environmentally sustainable; and
- (vi) Encouraging the growth of small and medium enterprises: since many players in the new and renewable energy market are SMEs, this project will assist those players in advancing their interests.

The project responds to the Fourth Meeting of APEC Energy Ministers in San Diego in 2000:

We have endorsed technology cooperation initiatives that provide benefits to all citizens, give a human face to development, provide new options for the clean development and use of energy, and contribute to energy security by diversifying the energy mix, improving energy efficiency, deploying new and renewable energy technology, reducing costs, facilitating energy business and trade, and mitigating damages on energy infrastructure after natural disasters, according to each economy's particular circumstances.

05. For applications under the TILF Special Account: How briefly this project contributes to APEC Trade and Investment Liberalisation and Facilitation (e.g. relevance to specific parts of the Osaka Action Agenda).

Not applicable as the project is 100% self-funded through a public-private partnership in the USA.

Linkages

06. The kinds of institutions in member economies intended to benefit from the results of the project. Highlight the direct benefits to the institutions, the types of business in member economies which will benefit from the results of the project and what the direct benefits are.

Any institution or private sector organization involved in the use of renewable energy for micro-enterprise development will benefit from this project in the near-to-medium term. Potential beneficiaries include energy developers, local and regional development organizations including those supporting micro-enterprise, agricultural operations, financial institutions, (local, international and developmental), intergovernmental organizations, non-governmental institutions, local and/or domestic manufacturing industries and governments.

07. How the participation of the business/private sector and non-governmental institutions has been sought or will be sought. Illustrate how the business/private sector has been involved in the planning and delivery of the project and whether any other APEC fora have been consulted.

A three-way involvement of government, private sector and non-governmental participation in this project is essential. (The project was reviewed by all three types of stakeholders at the 19th Meeting of the Expert Group on New and Renewable Energy Technologies, Kona, Hawaii (USA), March 2002.)

08. How this project will add "APEC value" (as to the potential benefits of implementing projects) in the context of other work that might have been done elsewhere in the same field.

All APEC members benefit from successful application of renewable energy technologies for micro-enterprise development because such utilization results in sustainable energy use as a consequence of increased access to quality of life improvements, rural income generation, expanded trade, regional energy security, and improved health associated with reduced air pollution.

09. An indication of how the project might contribute to related projects or activities in APEC or elsewhere.

This project will contribute to other projects under the Expert Group on new and Renewable Energy Technologies related to the use of renewable energy technologies for off-grid electricity supply, and rural micro-enterprise development. Project will be replicated in other APEC economies, including Indonesia. The lead project organization, Greenstar, has plans to introduce this approach in 60 countries over the next 5 years.

10. Describe the deliverables of the project and demonstrate how they will meet the needs of the targeted beneficiaries.

The project deliverables will be 1) village solar power and internet-connected computer facilities, installed and operational in a remote Tibetan village; 2) professional quality digital audio recordings, artwork based on universal themes, and digital photographs of people and village scenes; 3) e-commerce enabled web site to provide commercial access to culture products.

Methodology

11. A concise description of the project's methodology.

This work will consist of the following phases:

Phase 1: Visit with governmental leader and other appropriate government authorities responsible for the Ngari region of western Tibet, and with Brightness Program (Chinese rural electrification program) administrators. Organize a trip to a least two candidate village sites, pre-selected by appropriate government representatives in the context of the Greenstar Site Selection Criteria, which focus on serving areas without access to electricity. The purpose will be to affirm local Greenstar resources already identified as potential project suppliers (e.g. solar panels, inverters, batteries, computers, students and non-government organizations approved to operate in the region). Greenstar will provide an introduction to the principles of clean energy powered micro-enterprise. Relationships will be established with village leaders, local music and artistic talent will be evaluated, representative samples of locally produced products will be gathered and sites surveyed for appropriate installation of computer and solar equipment. A single candidate village in Ngari will be selected for launch in 2002.

Phase 2: Appropriate environment, health and education software in English and local languages will be identified for installation on computers to be used by the Community Center for public access. 1 month from start-up (FSU).

Phase 3: Transport computer, solar power, digital camera, art materials, other resources to the village, install and test; provide training to selected village people; contract for local maintenance; 3 months FSU.

Phase 4: Bring musical and art talent to each village, with local experts; hold rehearsal and recording sessions for music, conduct sessions to produce artwork based on universal themes; instruct people in use of digital camera and digital processing tools; 6 months FSU.

Phase 5: Editing, research, writing, software development, graphic design to complete digital gallery presentation, provide professional packaging, establish pricing structure and marketing channels, complete licensing agreements; creation of commercial compact disk (CD) music releases; 7 months FSU.

Phase 6: Visit with all appropriate government authorities involved in project and record and review project status and establish relationships with product suppliers for commercial web-site; 12 months FSU.

Phase 7: Web site launch of integrated digital products with press promotion in China and worldwide; 19 months FSU.

A timeline for circulation and submission of this project proposal with drafts circulated well in advance to fora to allow careful consideration. The project will consist of:*

- a. Presentation to and Discussion with Expert Group Members of project proposal at the 19th Expert Group Meeting (March 2002)
- b. Distribution of final project report through the Expert Group (December 2003)

*NB: All dates are provisional and subject to change.

13. A timetable for the accomplishment of each component in (12).

See 12 above for the timetable.

14. The number of APEC member economies that will participate in this project. Please indicate the names of member economies participating in each component of the project as set out in (12).

The USA will lead the project with assistance from China and Indonesia.

Budget

15. An itemized budget for the project, including provision for any publication and dissemination of project results, in the prescribed format. Applications under the Operational Account should use the format at Annex A1. Applications under the TILF Special Account should use the format at Annex A2. The budget should illustrate the assumptions adopted (e.g. unit costs) for the computations.

The budget for this project will be 100% self-funded by a USA public-private partnership.

16. A timetable for the drawdown of APEC funding requested for the project, including details of any advance payment or installment payment requested and justifications for such requests.

N/A

17. Details of any request for waiver or exception from the normal APEC financial rules with justifications.

N/A

Dissemination of Project Output

18. Publication and dissemination of the results of the project:

The project output will be the information, experiences, and conclusions of the micro-enterprise and education and health care aspects with an analysis of benefits to the village and response to stakeholders from the village and customers from around the world.

Those invited to attend public seminars will represent the following: energy developers, utilities, regional development organizations, financial institutions, agricultural organizations, intergovernmental organizations, non-governmental institutions, local and/or domestic manufacturing industries, etc.

Preliminary conference reports (hard copy) will be compiled and distributed to those in attendance at the public seminars and conferences; the number of copies produced will depend upon the number anticipated to attend. Final reports and public comments will be uploaded and available on Greenstar's web site.

Preliminary promotion/publicity will take place through suitable media channels including print and internet reports. Members of the APEC

EWG/Expert Group on New and Renewable Energy Technologies will be informed when the reports and updates are uploaded on Greenstar's Web site.

Assessment of Project

19. With reference to your objectives stated in paragraph 3, provide detailed criteria (quantitative and qualitative) for how you will measure your results in the short and long term to know if your project has been successful. State your current benchmarks for measurement, your target results from the project for each measurement criterion and the range of acceptable results both in numerical and percentage terms, where possible.

In the short term, the successful installation and operational status of a 2kW PV-powered community center in an off-grid Tibetan village will be a tangible metric of success. In the longer term, successful micro-enterprise development within the village (return of revenue, income generation, etc) based on the sale of digital culture and cultural products through the web will be a tangible metric for project success. Ultimate success will be seen as other villages seek to replicate the project.

Gender Criteria for Formulation and Evaluation of Projects

Objectives

1. Show how the objectives of the project provide benefits for women, where appropriate. APEC Ministers have indicated (*Framework for the Integration of Women in APEC*) that benefits might include: increased involvement of women; taking account of the differences in women's and men's lives (gender analysis); and collection/use of sex-disaggregated data.

The central objective of the project is the development of micro-enterprise activity in remote, off-grid villages. Women are generally the first to benefit from rural micro-enterprise development. Where NRETs have been introduced in previously unelectrified villages, women have been relieved of numerous time-consuming tasks, including the gathering of firewood.

Linkages

2. Show how the participation of women has been/will be sought. Show how women are involved in the planning, management, allocation of resources, and implementation of the project.
 - a) It is anticipated that women will make up the vast majority of business ownership resulting from micro-enterprise developed through this project. Active searches will be made to include women, which is an integral part of Greenstar's selection criteria.
 - b) A female will be working directly with Greenstar in developing the web site that will be used to foster the sale of cultural products made by the village enterprises.

Methodology

3. Provide a brief description of the way women will be able to participate equitably in the development and implementation of the project.

See 2. b) above.

4. Provide a brief description to show that the project will collect and use sex-disaggregated data (if available) to measure the project's effects on women.

The number of women-owned business resulting from this project will be determined and recorded and a social audit will be conducted to evaluate the impact on women and other groups.

Dissemination of project output

5. Does the plan for the publication and dissemination of the project's results include communication methods that are appropriate for women?
 - Questions that may be relevant include: Are women one of the target audiences? Does the plan take account of women with low literacy and women with low access to electronic media? Will the results be disseminated to women's organizations?

Although women are not a specific target audience of the Project, it will be possible for women's organizations with Internet access from around the world to view the digital culture and cultural products over the internet. Greenstar has a similar pilot underway in India, which is managed by a woman with rural development and social service experience – Mrs. Pingali Rao Rajeswari (who can be viewed on the web at <http://www.e-greenstar.com/india/gallery/source/12.html>).

Budget

6. Are women involved in making decisions on the allocation of resources?

See 2. c) yes – see above.

7. Where appropriate, provide details of the project's budget that are allocated to activities that address the specific needs of women.

Not applicable.

Assessment of project

8. Provide details of how the project proponent will assess whether he/she has met the gender criteria for APEC projects and how he/she will measure the impact of the project on women.

See 4 above where reporting and analysis will be conducted prior to, during, and after project launch.

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APEC Operational Account
Itemized Budget for Financial Year 2003¹

Items		APEC Funding (USD)	Self Financing (USD)
Computer Hardware	\$12,000	Nil	100%
Solar power hardware	\$24,600	Nil	100%
Research, planning, travel to sites	\$18,900	Nil	100%
Software library: research and collection	\$4,300	Nil	100%
Administrative support	\$9,500	Nil	100%
Local artist fees, consulting, local agency services and expenses	\$5,300	Nil	100%
Web site development, post-production and promotional expenses	\$15,400	Nil	100%
<i>Total</i>	USD\$90,000	Nil	100%

¹ If project straddles more than one year, please indicate only the amount of funds required for the financial year in question.