

**Introduction to CTI's  
Private Financing Advisory Network  
(PFAN)**





problem solving, fine tuning of the cash flows and commercial aspects and fulfilling the necessary conditions required by the potential lender / investor for converting financing offers into committed financing.

Each review stage is summarized in a formal written memorandum to the project sponsor which provides an analysis of the strengths and weaknesses of the project proposal, makes suggestions for future courses of action, identifies who needs to be involved, and specifies what needs to be done to take the project to the next stage and ultimately secure financing. The PFAN process requires the full commitment of project sponsors to supply information and to act on the advice provided. If this is not forthcoming CTI reserves the right to terminate PFAN support.

### Experience / Results to Date

PFAN activities commenced in early 2006 and were conducted as a pilot programme up to September 2008. During this period about 65 projects in total underwent initial review (or pre-review) with 10 of these projects being formally accepted for receiving PFAN support and inducted into the development pipeline. The projects cover a variety of regions and technologies. A further 10 – 15 projects would have been suitable for PFAN support had there been greater availability of resources.

During the pilot 2 projects were guided to financial close (a small run-of-river hydro-electric power station in Mexico and a bio-diesel refinery in Brazil) raising a total of USD 35 million. A further project (biomass pelletisation in South Africa) was closed in January 2009 raising USD 1 million (plus possible further commitment of up to USD 5 million). A number of projects were carried over from the pilot to the scale-up programme and are at various stages of development. The development pipeline is currently being expanded aggressively (see below).

### PFAN Funding Partners

PFAN activities are funded by the CTI and other Funding Partners including the United States Agency for International Development (USAID) and the Asia Pacific Partnership (APP) and the Renewable Energy & Energy Efficiency Partnership (REEEP). In addition the private sector PFAN Members commit *matching funds and contributions* (in the form of discounted service rates and fees).

### Scaling-Up & Expansion

PFAN has confirmation of resources for a 3 year scale-up programme (to the end of 2011) which will include significant expansion of network membership and coverage and a rapid scaling up of activities and project handling capacity:

- § Establishment of 4 broad Regional Networks for Latin America, Africa, Asia and CIS / Eastern Europe, each coordinated by a dedicated Regional Coordinator;
- § Establishment of dedicated country networks in India & China, the Philippines & Indonesia.
- § Establishment of country networks in Mozambique & Uganda;
- § Co-organisation of investor workshops and matchmaking events in China, India and other Asian countries, Africa and Brazil;
- § Expansion of the development pipeline capacity to about 100 - 125 projects spread evenly over the 4 regions.

Based on the proven track record and current leverage rate PFAN aims to raise between USD 500 – 700 million of investment and financing for CE / RE / EE projects in economies in transition and developing countries over the next 3 years.

### Call for Proposals / New Members

PFAN is now soliciting new projects for entry into the development pipeline. Free form project proposals may be submitted to the Global Coordinator or to the Head of the CTI Secretariat at the addresses below. We would also be pleased to hear from investors and advisors interested in becoming members of the Network.

### Summary

PFAN is proving to be an innovative and useful instrument in raising finance for CE / RE / EE projects in developing countries & transition economies thereby facilitating technology transfer. More information on project requirements, the application process for PFAN support and PFAN Membership is available at [www.climatetech.net](http://www.climatetech.net) and / or directly from

Peter Storey  
PFAN Global Coordinator  
Director, PPL International  
[peter.storey@ppl-int.com](mailto:peter.storey@ppl-int.com)

Taiki Kuroda  
Chief of Programme Secretariat  
CTI Secretariat at ICETT  
[kuroda@icett.or.jp](mailto:kuroda@icett.or.jp)

# CTI PFAN

## (Private Financing Advisory Network)

### DEVELOPMENT PIPELINE - PROJECT SUMMARY

June – Aug 2009

No.	Project Name Overview	Investment Amount / Financing USD Millions	PFAN Involvement	Status
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#### Section 1 – Financial Close Achieved

<b>001-FC</b> Type: § 5 MW RoR Hydro Developer: § Mexican & US CE Developers Investor: § FE Clean Energy Features: § 25 Yr Concession 8	<b>Small Hydro Project, Mexico</b> § 5 MW RoR Hydro § Mexican & US CE Developers § FE Clean Energy § 25 Yr Concession 8	§ 17 (Total Inv.) § 0,22 Dvpt Finance § 6,25 Equity § 10,4 Bank Loan 10 Yrs (OPIC G'tee)	§ Review & Control of TS § S&A for Debt Finance Proposal § S&A during achievement of CPs	§ Financial Close Achieved § Disbursement of funds
<b>002-FC</b> Type: Developer: Investor:	<b>BioDiesel Project, Brazil</b> § BioDiesel Refinery (ca 60.000 tpa capacity) § Brazilian CE Entrepreneur § FE Clean Energy	§ 18 (Total Inv.) § 5,4 Equity § 12,6 PF Bank Debt	§ Review & Control of TS § S&A for PF Proposal § S&A during achievement of CPs	§ Financial Close Achieved subject to agreement of final documents § Investment Confirmed § Closing negotiation with developer Q4 08
<b>009-FC</b> Type: Developer: Features:	<b>EDS Hazyview, RSA</b> § Production of Biomass Pellets § EDS Projects (Africa) Pty, Ltd § Phase 1 – Investment in Manufacturing Plant & roll out in SA § Phase 2 – Investment in International Roll Out § Phase 3 – Investment in pelletisation projects in SA and internationally	§ 1 (Total Investment for Phase 1) § 5 (Phase 2)	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources § S&A for Equity & PF Proposals	§ Financial Close for Phase 1 Achieved § Terms & Conditions for Phase 2 under negotiation

#### Section 2 – Development Pipeline Asia

<b>026</b> Type: Developer:	<b>Spring 1, Thailand</b> § 10 MW integrated biogas to energy & bio-compost plant § Full Advantage / Silverdale	§ 33,4 § 5 already committed by developer § New Equity 11,7 § Debt 16,7	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources § S&A for Investor Negotiations & Valuation of offers	§ Deal Facilitation in Process § AFCEF / CTI Award winner
<b>027</b> Type: Developer: Features	<b>Asia Clean Diesel, Singapore – ASEAN Region</b> § Waste to Clean Diesel Conversion § EVJ, Alphakat & Aequero § Development of plants throughout ASEAN region	§ 12 (Equity)	§ Introduction of Investor & Financing Sources § S&A for Investor Negotiations & Valuation of offers	§ Deal Facilitation in Process § AFCEF / CTI Award winner
<b>028</b> Type: Developer: Features:	<b>Advon, Singapore</b> § Development of an absorption chiller for integrated EE water desalination & air conditioning § Advon § Early stage venture capital technology play	§ 1,5 (Equity) § For prototype development & commercialisation	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources § S&A for Investor Negotiations & Valuation of offers	§ Deal Facilitation in Process § AFCEF / CTI Award winner
<b>025</b> Type: Developer:	<b>ABC, Sri Lanka</b> § 6 MW integrated waste to energy & bio-compost plant § Anaerobic Biotech Corp (ABC)	§ 52,5	§ S&A for overall Project Dvpt and structuring of Financing § Preparation of BP & IM § Introduction of Investor & Financing Sources	§ Phase 1

No.	Project Name Overview	Investment Amount / Financing USD Millions	PFAN Involvement	Status
034	<b>Sunlabob, Laos</b> Type: § Solar Rural Electrification & Lighting Developer: § Sunlabob Features: § Replacement of kerosene lanterns with rechargeable solar lanterns § Innovative PPP model § Replication in Africa	§ 1 § 50 % Equity § 50 % Debt	§ S&A for overall Project Dvpt. § Structuring of Financial Model § Introduction of Investor & Financing Sources § S&A for PF Proposal	§ AFCEP Finalist § Initial Induction Review
035	<b>Nam Kong Hydro, Laos</b> Type: § 75 - 150 MW Hydro Developer: § RHPSL / Silverdale Features: § Off-take by EGAT (Thailand) or Vietnam or local industry	§ 52 § 20 – 30 % Equity § 80 – 70 % Debt	§ S&A for overall Project Dvpt. § Preparation of BP & IM § Introduction of Investor & Financing Sources	§ Phase 1
036	<b>CleanTech Phils, Philippines</b> Type: § 18 MW biogas waste to energy plant Developer: § CleanTech Phils Features: § Retrofit of existing fuel oil fired plant § Captive Plant situation for waste stream & offtake	§ 5 § 30 % Equity § 70 % Debt	§ S&A for overall Project Dvpt. § Preparation of BP & IM § Introduction of Investor & Financing Sources	§ Phase 1
037	<b>Bhavnagar, Rolling Mill Cluster, India</b> Type: § EE in steel rolling mills Developer: § ICETT / CTI / Winrock Int. India	§ TBA	§ S&A for overall Project Dvpt. § S&A for design of financing programme § Introduction of Investor & Financing Sources	§ 2 <sup>nd</sup> Phase
038	<b>Wuyang Hydro, China</b> Type: § 20 MW Hydro Developer: § JGYJ Power Investment Co Features: § Cooperation with ITTC / Tingshua Univ.	§ 26 § 35 % Equity § 65 % Debt	§ S&A for overall Project Dvpt. § Preparation of BP & IM § Introduction of Investor & Financing Sources	§ Phase 1
039	<b>Nanjing, Longterm Environment Technology Development Co</b> Type: § Landfill Gas Projects Developer: § Nanjing LETDC Features: Portfolio of existing & new projects under development	§ TBA	§ S&A for overall Project Dvpt. § Preparation of BP & IM § Introduction of Investor & Financing Sources	§ Phase 1

### Section 3 – Development Pipeline Latin America & Caribbean

022	<b>San Francisco, de Mostazal, Chile</b> Type: § 15 MW Biomass Cogeneration Plant Developer: § Compania Papeiria del Pacifico / Empresas COIPSA	§ 27	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources § S&A for Investment Proposal	§ Phase 2 in progress
029	<b>HV Hydro, Chile</b> Type: § 15 MW bundled Hydro in 4 separate locations Developer: § HV Features: § High capacity plants with low capital costs. Grid access g'teed by Utility. Spot sales into grid	§ 23 § 25 – 30 % Equity § 75 – 70 % Debt	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources	§ Phase 2 in progress § Partner identification
030	<b>LLC, Chile</b> Type: § 14 (Ph 1) – 28 MW (Ph 2) Biogas Waste to Energy from landfill Developer: § LLC Santiago Features: § Phased development. 3 MW already in operation. Long term contract for waste supply.	§ 40 (Total) § 23,7 (Phase 1) § 16,3 (Phase 2)	§ S&A for overall Project Dvpt. § Introduction of Investor & Financing Sources § S&A for Investment Proposal & Negotiations	§ Phase 2 in progress § Partner Identification

No.	Project Name Overview	Investment Amount / Financing USD Millions	PFAN Involvement	Status
031 Type: Developer: Features:	<b>International Energy Efficiency Financing Protocol, Chile</b> § Dvpt of programme to implement & finance EE improvements for municipal & private Chilean entities § CORFO / Ministry of Energy § Credit Risk Guarantee Structure Programme. Eventual participation of USAID DCA	§ TBA	§ S&A for overall Project Dvpt. § Introduction of DCA and other financing sources § S&A for ministry in negotiations with MIF od IADB	§ Phase 2 in progress § Negotiations with MIF / IADB and DCA
032 Type: Developer: Features:	<b>Cornucopia, Brazil</b> § Creation of sustainable agricultural & RE microenterprises & systems § Magister Network § R & D, pilot projects for each sector, product capacity building, marketing of end products	§ 5	§ S&A for overall Project Dvpt. § Structuring of Financial Model § Introduction of Investor & Financing Sources	§ Phase 3 in progress § Negotiations for grant equity funding in progress
033 Type: Developer: Features:	<b>International Energy Efficiency Financing Protocol, Columbia</b> § Dvpt of programme to implement & finance EE improvements for municipal & private Chilean entities § Colombian Ministry of Environment § Credit Risk Guarantee Structure Programme. Eventual participation of USAID DCA	§ TBA	§ S&A for overall Project Dvpt. § Introduction of DCA and other financing sources § S&A for ministry in negotiations with MIF od IADB	§ Phase 2 in progress § Negotiations with MIF / IADB and DCA

#### Section 4 – Development Pipeline CIS & Eastern Europe

010 Type: Developer: Features:	<b>Project Subartalo, Georgia</b> § 9,3 MW Geo-Thermal Facility (hotwater & heating) § Geothermia Ltd, Georgia § Project developed by UNDP & KfW § Rehabilitation & Expansion of existing geothermal wells § Output: 200m³ / hr of hot water (ca 80.000 MWh pa.)	§ 5 (Total Investment incl. Initial working capital) § 0,5 – 1 Equity § 4 – 4,5 PF debt supported by ECA Finance & Government Subsidy	§ S&A for overall Project Dvpt. § Structuring of Financial Model § Introduction of Investor & Financing Sources § S&A for PF Proposal	§ Phase 1 Induction § Progress to Phase 2 subject to agreement & coordination with Developer & UNDP
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#### Section 5 – Projects Undergoing Research & Review for Consideration in Development Pipeline

012-P Type Developer Country	<b>EDS Bio-Mass Pellet Production, Indonesia</b>	§ 1 (Phase 1 Investment)	§ Introduction of Investor § S&A for Equity & PF Proposals	§ Information gathering & analysis
024-P Type Developer Country	<b>Gammaduwa Plantations Ltd (GPL)</b> § Gliricidia Biomass Project § GPL § Sri Lanka	§ 3,3 (Total Investment)	§ S&A Investor Procurement	§ Information gathering & analysis
026-P Type Developer Country	<b>Oval Biofuels Ltd (OBL)</b> § Biofuel Refinery (Jatropha) § OBL § Zambia	§ 3	§ S&A Investor procurement	§ Information gathering & analysis
040-P Type Developer Country	<b>Gikiko</b> § Landfill Gas § Gikiko § Indonesia	§ 2	§ S&A Investor procurement § BP preparation § Deal facilitation	§ AFCEF Finalist § Discussion with developer
041-P Type Developer Country	<b>W2E</b> § Waste to Energy § W2E § Indonesia, Cambodia & Vietnam	§ 10	§ S&A Investor procurement § Deal facilitation	§ AFCEF Finalist § Discussion with developer

No.	Project Name Overview	Investment Amount / Financing USD Millions	PFAN Involvement	Status
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<b>042-P</b> Type Developer Country	<b>ASEA</b> § 25 MW Biomass § Asea One Power Corp § Philippines	§ 62,5	§ S&A Investor procurement § BP preparation § Deal facilitation	§ AFCEF Finalist § Discussion with developer
<b>043-P</b> Type Developer Country	<b>PUC</b> § Biomass Tri-generation § PUC § Thailand	§ 1,8	§ S&A for Project Development § Investor procurement § BP preparation	§ AFCEF Semi-finalist
<b>044-P</b> Type Developer Country	<b>SKE</b> § 7,5 MW RoR Hydro § SKE § Indonesia	§ 10MW	§ S&A for Project Development § Investor procurement § BP preparation	§ AFCEF Applicant

**GLOSSARY: abbreviations and technical terms have the following meaning:**

<u>Abbreviation</u>	<u>Meaning / Explanation</u>
<b>AFCEF</b>	Asia Forum for Clean Energy Financing (see <a href="http://www.cleanenergy-financing.com">www.cleanenergy-financing.com</a> )
<b>BP</b>	Business Plan
<b>BD</b>	Bio Diesel
<b>CE</b>	Clean Energy
<b>CORFO</b>	Chilean Economic Development Agency
<b>CPs</b>	Conditions Precedent
<b>Dvpt</b>	Development
<b>EIA</b>	Environmental Impact Assessment
<b>EPC</b>	Engineering & Procurement Contract
<b>FSR</b>	Feasibility Study
<b>Gvt</b>	Government
<b>IM</b>	Investment Memorandum
<b>Inv</b>	Investment
<b>PDA</b>	Project Development Agreement
<b>PF</b>	Project Finance
<b>PPA</b>	Power Purchase Agreement
<b>Ref</b>	Refinery
<b>RoR</b>	Run of River
<b>S&amp;A</b>	Support & Advice
<b>Tba</b>	To Be Announced
<b>TS</b>	Technical Study/(ies)
<b>WC</b>	Working Capital

Exact Figures / Amounts are given where known and / or already agreed. Figures given as percentages indicate planned, expected and / or hoped for outcomes.

Please note that some names and details are restricted from publication for confidentiality reasons.

Peter Storey  
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## **Climate Technology Initiative**

*The Climate Technology Initiative is one of the International Energy Agency's Implementing Agreements, within the IEA's Framework for International Energy Technology Cooperation. The CTI's objective is to foster international co-operation for accelerated development and diffusion of climate friendly technologies and practices.*

For more information - see **[www.climatetech.net](http://www.climatetech.net)**