



SAN CARLOS SOLAR ENERGY INC.

CASE STUDY
SaCaSol I A, I B, I C & I D

ThomasLloyd CTI Asia Holdings Pte Ltd – a subsidiary of ThomasLloyd SICAV-SIF-Cleantech Infrastructure Fund – sold its 90% economic rights in operating company, San Carlos Solar Energy Inc. (SaCaSol) to the Philippine Investment Alliance for Infrastructure (PINAI) on 15 June 2015. The sale included the grid-connected 13 and 9 MWp first phases (A & B) and the substantially completed 13 and 10 MWp second phases (C & D) of the utility-scale solar power plant SaCaSol I in San Carlos City, Negros Occidental, Philippines.

THE TRANSACTION

2 May 2013: ThomasLloyd acquired the rights to the power plant project SaCaSol I close to San Carlos City on the Philippine Islands directly from a local project developer. As part of project optimisation in the early summer of 2013, the originally projected plant output of 10 MWp was increased in a further three phases to the current output of 45 MWp.

31 August 2013: Based on an international tender, the first contracts for the construction, operation and maintenance of the plant were awarded in August 2013 to a consortium of leading regional companies and global specialists from Europe and North America.

15 May 2014: President of the Philippines, Benigno S. Aquino III commissioned at an official inauguration the first two phases, A & B, as the first utility-scale, privately funded solar facility in the country. The plant was connected to the grid (COD) on the same day, and the plant has an expected commercial life of a minimum of 30 years.

15 July 2014: The Bank of the Philippine Islands (BPI) provided to SaCaSol the first tranche of a financing package, which finally totalled 1.5 billion Philippine Pesos (around EUR 30 million) further to enable construction.

15 June 2015: The 90% economic rights in the solar power plant SaCaSol I were sold. As part of the transaction, the rights to other San Carlos Solar Energy Inc. solar power plant projects on the Philippines (SaCaSol II A & B and SaCaSol III) were divested from the company and transferred to the newly-established operating company, Negros Island Solar Power Inc. At the same time and ahead of schedule, the credit facility provided by the Bank of the Philippine Islands (BPI) was fully repaid.

31 July 2015: SaCaSol I C & D were commissioned, expanding the overall capacity of SaCaSol I to 45 MWp.

FINANCIAL RESULT (IN EUR)

	Amount	Exit	Cash on Cash ROI	Multiple	IRR
Project development financing	2,426,732	3,270,253	843,521	1.35 x	119.80%
Construction financing	22,597,096	30,197,445	7,600,349	1.34 x	23.13%
Equity investment	7,945,466	12,186,852	4,241,386	1.53 x	34.01%
Total investment/ financing	32,969,294	45,654,550	12,685,256	1.38 x	27.89%

OVERVIEW OF SACASOL

- Output: 45 MWp
- Project site: 660,000 m²
- Solar irradiation at project site: 1,871 kWh/m²/year (PV Syst)
- Reach of Electricity Supply: 103,000 people
- Workers on the construction site: 1,600
- Tonnes of CO₂ saved annually: more than 30,000
- Supplier/Manufacturer: Solar Panels: Conergy, Mounting Systems: Mounting Systems, Inverters: SMA Solar Technology, Monitoring System: Hensel, Cables and Wires: General Cable, Philflex, Spaced Aerial Cables: Bangkok Cable, Junction Boxes, Optical Cables, Connectors and Tool, Boxes: Huber+Suhner, Transformers: Schneider Electric
- General Contractor (EPC): Conergy Asia & ME, SJR Industrial Construction, Schema Konsult, Inc.
- Operations & Maintenance: Conergy Asia & ME
- Electricity Offtake Counterparty:
 - Interconnection Agreement with National Grid Corporation
 - Renewable Energy Purchase Agreement with National Transmission Corporation (Administrator of the government backed Feed-in Tariff Fund)
- Credit Rating Electricity Offtake Counterparty: Standard & Poor's: BBB with stable outlook, Moody's: Baa2 with positive outlook, Fitch: BBB- with stable outlook
- Specifications of the Power Purchase Agreement: Statutorily guaranteed feed-in-tariff rate of PHP 9.68 (USD 0.23) per kWh plus an annual escalation in electricity prices to account for inflation and exchange rate fluctuations. The rate has been set and approved for 20 years by the Government's Energy Regulatory Commission.



SaCaSol: from “greenfield” project to utility-scale operational solar plant in less than 2 years.

PURCHASER: PINAI

The purchaser of SaCaSol, the Philippine Investment Alliance for Infrastructure (PINAI), is a closed-end fund, which was established jointly by the institutional investors GSIS, APG and Macquarie, in order to invest in the rapidly-expanding infrastructure market of the Philippines. The fund had its first and final close in July 2012, raising PHP 26 billion (USD 633,605,458) of commitments. The manager of the fund is Macquarie Infrastructure Management (Asia) Pty Limited Singapore Branch (MIMAL), a member of Macquarie Infrastructure and Real Assets (MIRA).

Government Service Insurance System (GSIS), Philippines

GSIS is the state social insurance institute for the Philippines, which was established in 1936 as part of the Common Wealth Act. It is responsible for the pension entitlements of government employees, and has a reported balance sheet total of over USD 20 billion at the end of the last financial year.

Algemene Pensioen Groep (APG), Netherlands

The APG (Algemene Pensioen Groep) from the Netherlands is one of the largest pension funds in the world and manages the pension assets of 4.5 million Dutch nationals. The investment was made by a wholly-owned subsidiary established especially for the purpose of the stake in PINAI, Langoer Investments Holding B.V. APG, in 2013 alone, invested over EUR 15 billion in sustainable investments.

Macquarie Infrastructure Holdings Philippines PTE Ltd., Philippines

Macquarie Infrastructure Holdings belongs to Macquarie Group Limited whose head office is in Sydney. With over 13,000 employees, the company is the largest infrastructure asset manager in the world, with branches in the world's major financial centres. Macquarie currently manages assets of c. USD 375 billion.

“SOCIAL IMPACT”

The sale of the first solar power plants is a benchmark transaction for finance, social responsibility, and energy sustainability in the region. It is therefore also a benchmark for the vertical integration of infrastructure projects.

Firstly, the plants produce necessary required sustainably- and locally-generated electricity on Negros Island, not only for its major regional cities, but rural areas too. They allow the emergence of industrial and commercial centres, power machines in the factories and workshops thus make a vital contribution to economic development on Negros. They also bring light into schools and hospitals, provide the option to store food and keep it cool, and enable modern communication, thus opening up access to knowledge and education.

LEADING INFRASTRUCTURE INVESTORS



Government Service Insurance System

www.gsis.gov.ph



Algemene Pensioen Groep

www.apg.nl



Macquarie Infrastructure Holdings (Philippines)

www.macquarie.com

TRANSACTION ADVISERS

ThomasLloyd was advised by:



Platon Martinez Flores San Pedro Leano
(Legal Advisor)



PJS Law
(Legal Advisor)

PINAI was advised by:



Hogan Lovells
(Legal Advisor)

Other advisers:



Deloitte Touche Tohmatsu
(Financial Advisor)



GHD
(Technical Advisor)



The transaction is a cornerstone for the vertical integration of infrastructure projects.

Secondly, the construction and operation of the plants has brought work into a region previously dominated by agriculture, with the exponential effect that, due to the additional purchasing power, further jobs have been created in the regional economy, in manual trades, in business and in the services sector.

Looking back on the investments made to date and assessing these, the follow-up investments in downstream industries are particularly striking. When a local motorbike dealer sells 600 small motorbikes in just a few months, generating an increase in turnover of several thousand percent, as newly appointed workers want to use these to get to work on our solar building site, the macroeconomic benefits are very clear. New mobility creates opportunities to find work, export prosperity even to remote regions and trigger follow-on investment. For ThomasLloyd, this is an intended side effect of our sustainable investments.

Consequently, in the period of around two years between project acquisition and sale of the power plant, not only have the aims of ThomasLloyd investors been achieved, but also a significant and sustainable improvement to the living conditions of the local people.

SUMMARY

The sale of SaCaSol I represents not only a milestone for the renewable energy infrastructure market in South East Asia, but also for the Thomas Lloyd and its investors. SaCaSol I is not only the first Philippine solar power plant on an industrial scale, the first solar power plant which profits from the high Philippine feed-in tariffs, the first solar power plant which was co-financed by a major regional bank, and the first solar power plant in the country which was sold on completion.

The sale of SaCaSol I also stands for the compatibility of the economic interests of our investors and the requirements of the local people with regard to continuing development of the region, based on sustainable, environmentally-compatible electricity supply and its associated prosperity. It clearly emphasises the ThomasLloyd motto: "Invest where your money makes the difference".

ENERGY TO GO

An expression of the integrated responsibility in our Asian investment locations is a social commitment, such as through the provision of electricity to schools via small-scale solar plants, since electricity is the key to education and security. Our pilot project at Camaniagan Elementary School close to San Carlos City, Philippines: 24 solar panels with a nominal output of 6,000 watt peaks (Wp) provide sustainably-generated electricity in the classrooms. However, the benefits go way beyond educational interests: The pupils charge solar lamps provided by ThomasLloyd from a large rechargeable battery, which stores surplus electricity, and take these lamps home with them.

Film about the project ►►

HONOURS



Asian Power Awards 2014 for SaCaSol I and San Carlos Solar Energy Inc.



San Carlos Solar Energy Inc. is "Green Company of the Year 2014"



IFC presented San Carlos Solar Energy Inc with the "Sustainable Energy Finance Award 2014"



Frost & Sullivan Best Practices Award 2014 for San Carlos Solar Energy Inc.