

NEWSLETTER

1/2017

Topic: Renewable Energies



NEWS MPC CAPITAL

MPC CAPITAL INITIATES NEW CONTAINER SHIP INVESTMENT COMPANY WITH USD 100 MILLION IN EQUITY

MPC Capital AG has initiated an investment company with a focus on small-size container ships between 1,000 and 3,000 TEU. The newly formed 'MPC Container Ships AS' raised USD 100 million in equity in a private placement towards international institutional investors and family offices in the Norwegian capital market.

Based on the current pipeline exceeding 100 vessels, capital proceeds are expected to be fully deployed within 2017. An initial fleet of attractive assets has already been secured. Among other partners, MPC Capital's subsidiaries, Ahrenkiel Steamship and Contchart, are offering technical and commercial management services to the fleet.

MPC CAPITAL SUBSIDIARY CAIRN REAL ESTATE SELLS OFFICE COMPLEX

Cairn Real Estate completes repositioning of 'La Guardia' office complex in Amsterdam and sells to an international investor for a price of more than EUR 130 million

Cairn Real Estate has sold the 'La Guardia' office complex in Amsterdam to an international institutional core investor. The disposal marks the first exit in the company's strategy of repositioning good quality office buildings executed on behalf of an institutional investor. The IRR (internal rate of return) of the project is around 23% post tax.



MPC CAPITAL REPORTS SIGNIFICANT PROFIT IMPROVEMENT FOR 2016

MPC Capital AG successfully continued on its growth path in 2016. Revenues rose by 13% from EUR 47.8 million to EUR 53.8 million year on year. Fees from management services climbed by 15% to EUR 40.2 million. Transaction fees generated from the acquisition and sale of assets with EUR 12.8 million were slightly up over the previous year (EUR 12.1 million). Earnings before tax (EBT) for the MPC Capital Group climbed by 38% from EUR 11.4 million in the previous year to EUR 15.7 million. The assets under management of the MPC Capital Group as at 31 December 2016 totalled EUR 5.1 billion. Around EUR 1.0 billion in new assets were added to the managed portfolio in 2016.



RENEWABLE ENERGIES

Renewable Energies are an important part of the MPC Capital overall strategy and we intend to expand existing RE-platforms in 2017. The finalized sale of the completed wind farms in Portugal to a long-term investor shows the know-how and expertise of the renewable team and our international partners.

Following the acquisition of the first project for the renewable energies platform in the Caribbean, further assets that match the investment strategy in terms of location and expected yield are currently being analysed.

INTERVIEW

with Martin Vogt, Head of Origination

Martin Vogt is Director at MPC Renewable Energies and responsible for the origination of renewable energy projects. He joined the MPC Capital Group in 2014. Previously, he was Vice President at Global Capital Finance, where he also started his career, and was responsible for originating, structuring and executing of cross-border renewable energy transactions. He executed transactions in excess of 1.8 billion EUR and 2,000 MW of renewable energy power generation globally for institutional clients. Mr. Vogt has a Master in Technical and Commercial Management with focus on Energy & Resources from Clausthal University of Technology, Germany.



WHAT IS THE RENEWABLE ASSETS STRATEGY OF MPC CAPITAL?

Our renewable strategy reflects our overall strategy: We look for niche markets and projects where we can apply our value-add approach, which normally also means that we invest approximately 6-12 months before financial close. An example for our strategy is the Âncora project, the fourth biggest wind farm project in Portugal. Here we went into the project during the late development stage and have just recently sold the wind farms with a solid profit for our investor.

HOW DO YOU FIND SUITABLE PROJECTS?

We have built up an extensive global network of development and industrial partners through our projects. Many new projects or project ideas come through this network. On the other hand we are often approached by investment partners seeking a co-investor with relevant emerging market and asset expertise.

HOW DO YOU GET ACCESS TO LOCAL MARKETS?

Our local access is mainly established through our development partners, who have a local presence, but also due to our own experience in certain markets. With the Âncora project in Portugal for example we have established a strong presence in the Portuguese renewable market and are now being approached with possible new projects from local partners. We also get access via industrial partners within the MPC Group such as Ferrostaal, who have offices and do business in over 40 countries worldwide.

HOW DO YOU CHOOSE YOUR INDUSTRY PARTNERS?

We are always looking for partnerships, where both partners contribute and add value. Strategically we look for development opportunities and therefore need partners to complement our know-how in debt financing, structuring and investor access with a complimentary profile in early development and access to local stakeholders. Ideally, our partners have a solid track record in the local markets already.

DO YOU RELY ON LOCAL PARTNERS FOR THE DUE DILLIGENCE OF PROJECTS?

Yes we do, especially in the emerging markets where overall requirements are often unique and access to authorities is limited to local experts. Locally based companies have the know-how to cover all local matters including environmental and social aspects, local law and taxation. However for certain elements such as power purchase agreements, construction contracts or financing documents,

we engage international service provider. That way we can be sure to not only cover the local aspect but to also meet international standards.

YOU ARE LOCATED IN GERMANY - HOW INTERNATIONAL IS YOUR TEAM?

Very international. We have people from the US, Spain, France and even a Persian colleague. That makes for a cross-cultural environment, which helps us looking at things from different angles.

INVESTMENT PLATFORM FOR RENEWABLE ENERGY PROJECTS IN THE CARIBBEAN

PHOTOVOLTAIC PLANT IN JAMAICA (PARADISE PARK)

OVERVIEW

As an initial project for the Caribbean platform, MPC Capital is acquiring a stake in the Paradise Park 50 MWp solar plant in Jamaica. MPC Capital has structured and will be a co-investor in a joint investment vehicle which holds just under 50 % in the project company. The total investment volume amounts to some USD 50 million.

Construction work on the solar plant in Westmoreland, in the southwest of Jamaica, is scheduled to begin mid-2017. Connection to the grid is planned for 2018.

With a gross capacity of 50MWp, once completed, the park will be the largest photovoltaic power plant in the island nation. The plant will operate under a Power Purchase Agreement (PPA) with the Jamaican Public Service Company (JPS) for a period of 20 years.

The project represents an opportunity to invest in the country's push for energy diversification at a time when government policy is shifting to support renewable energy and a significant amount of new capacity is needed.

JAMAICAN ELECTRICITY MARKET (FIGURE 01)

Jamaica has one of the highest costs of electricity in the world. This is illustrated in the chart with retail prices averaging c. 30 US cents / kWh which is approximately 3x that of the United States. The Caribbean as a region also exhibits a very high cost of electricity. These costs are a function of the limited local fuel resources across the region. Trinidad & Tobago and Suriname are both exceptions (as indicated by their relatively low cost of electricity) as they have local fuel; Trinidad has deposits of natural gas and Suriname has significant hydro sources, which supports its bauxite industry.

ENERGY MIX

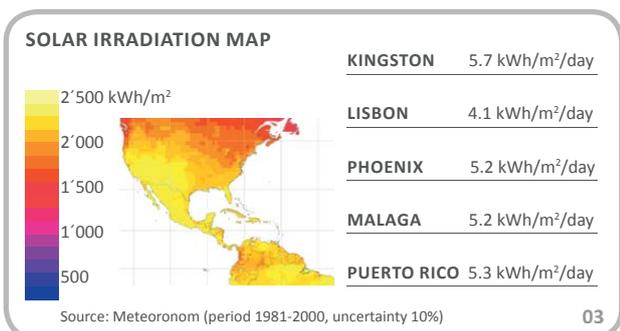
Over 90% of Jamaica’s current generation capacity is based on thermal power plants burning heavy fuel oil (“HFO”) and automotive diesel oil (“ADO”). The share of RE sources in Jamaica’s energy mix has increased since 2007, however this increase is primarily due to the decreased demand for oil from the bauxite and aluminum industries, rather than due to significantly more RE technologies being introduced in the market.

ENERGY DEMAND

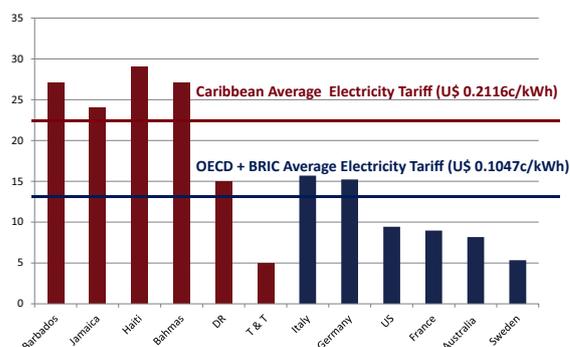
In light of the limited capacity generation that Jamaica has, it is important to place this in the context of the island’s energy demand and needs. Both the average number of customers and the average use per customer has increased significantly in Jamaica over the last 30 years. The number of JPS customers has increased by 160% over this period due to increased connectivity across the island combined with population growth.

PROJECT LOCATION (FIGURE 03)

The Project will be located in Paradise Park, Westmoreland, Jamaica. Jamaica is a well-positioned island in terms of solar irradiation with more than 1,800 kWh/m² received from the sun annually. This irradiation places the country amongst tier-1 American countries as illustrated by the map below.



COMPARISON OF ELECTRICITY TARIFFS IN THE CARIBBEAN VS. OTHER GLOBAL AVERAGES (US\$/KWH)



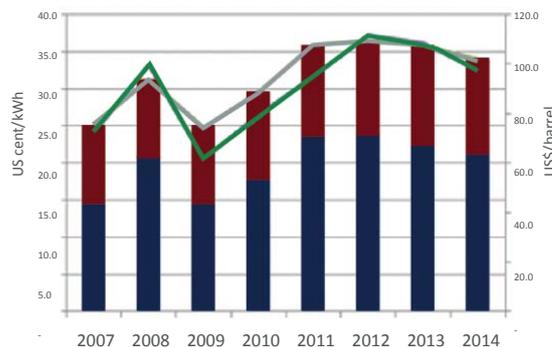
COMMENTARY

- Caribbean electricity tariffs are >50% higher on average than global economies
- Renewables are significantly below grid parity across the Caribbean region (US\$0.33/kWh tariff average)

Source: OVO Energy; N-REL

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ELECTRICITY RATES FOR THE JAMAICAN CONSUMER FROM 2007-2014



| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------|------|------|------|------|------|-------|-------|------|
| Non-fuel base rate | 10.5 | 10.5 | 10.5 | 11.8 | 12.3 | 12.6 | 13.6 | 12.9 |
| Fuel rate | 14.6 | 20.8 | 14.3 | 17.7 | 23.6 | 23.9 | 22.3 | 21.0 |
| Total | 25.1 | 31.2 | 24.8 | 29.6 | 35.9 | 36.4 | 35.8 | 34.0 |
| Brent crude | 72.3 | 99.6 | 61.7 | 79.4 | 94.9 | 111.6 | 108.4 | 97.5 |

Source: OUR Jamaica; JPSCO Annual report; JEP website; PCJ

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INTERVIEW

with David Delaire, Head of Asset Management

David Delaire is Head of Asset Management MPC Renewable Energies. Previously he was Director of Asset management at Natural Power, COO at Greensolver, CTO at Eolfi (a former Veolia company) and Operations Manager at General Electric. His track record includes the technical and commercial asset management of 50+ international wind farms and 13 Photovoltaic (PV) Facilities for infrastructure funds, pension funds and independent power producers (IPPs). He has been in the renewable energies industry for the past 11 years at various stages of the value-chain and has attained the ISO 90001 certification in Asset Management and EPCM for a previous employer. David holds a Bachelor of Science in Electrical Engineering from Tuskegee University, United States and a Masters of Business Administration Management from Webster University, United States.



WHAT IS YOUR OVERALL ASSET MANAGEMENT STRATEGY?

We have a holistic approach and the strategy can very generally be defined as centralized management with local job execution. Our approach is to clearly show our differentiating skills set from the O&M service provider, who is “obligation-focused” whereas we are “investment-focused”. In detail, we firstly define the asset criteria of the investor based on their yield expectations. Then we optimize the asset as to match the investors needs, maximize the value of the asset and finally bring it to a profitable exit.

ASSET MANAGEMENT - HOLISTIC APPROACH



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WHAT IS SPECIAL ABOUT THE CARIBBEAN ELECTRICITY MARKET?

The Caribbean is very special in that it is highly dependent on oil for generating electricity. The energy mix in Jamaica for example relies to 90 % on fossil fuel. Since oil needs to be imported to the islands – electricity is very expensive. The demand for electricity has increased in the last decade,

but standards are local and cost inefficient. The tariff structure can be very profitable and attractive for investors. So even if the Caribbean is definitely a niche market – it has high potential for renewable energy investments.

WHY CONSTRUCT A PHOTOVOLTAIC PLANT IN JAMAICA?

Jamaica is a good starting point if you want to enter the Caribbean. Our photovoltaic plant will be the cheapest source of energy for Jamaica, which is currently still dependent on imported oil and natural gas. Also due to the ever-increasing demand and high price of electricity, government energy policies are currently shifting to support renewable energy. So the timing for renewable energy in Jamaica is perfect.

WHO ARE YOUR PARTNERS IN JAMAICA?

We have European partners that have a local presence in Jamaica and a solid track record in renewables including photovoltaic projects. So we have both the international know-how and the local expertise.

WHAT KIND OF SITE IS PARADISE PARK?

Paradise park used to be a cattle and sugar cane site and will now be the location for our photovoltaic project. This side of the island – the south west side is perfect for the plant in terms of irradiation and protection against hurricanes and other extreme weather conditions.

WHAT ABOUT OTHER CARIBBEAN COUNTRIES?

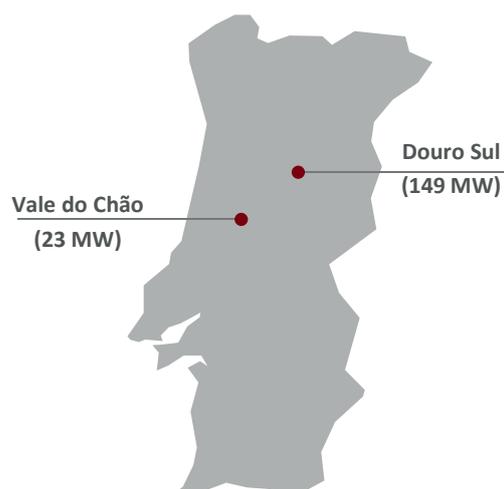
We are currently looking at the whole of the Caribbean region, including the members of the Caribbean Community (CARICOM), other islands in the region, Mexico and countries in South and Central America.

CASE STUDY ANCORA – WINDPARK IN PORTUGAL WITH 171.6 MW**PROJECT OVERVIEW****HISTORY AND PARTNERS**

In 2013 MPC Capital and Ferrostaal group joined the “Ventinveste” consortium - whose members then included Galp Energia, Martifer, Efacec and Senvion - as 50% equity partners for the final development, financing and construction of 171.6 MW in Portugal.

THE WIND FARMS

The four wind farms of the Ancora project are located in Central and Northern Portugal. All locations are known for their wind intensity and are mostly high above sea level in the mountains. All regions are rural and sparsely populated.



| | DOURO SUL SPV | | | VALE DO CHÃO SPV |
|----------------|-------------------|-------------------|-------------------|-------------------|
| | MOIMENTA | TRÊS MARCOS | SERNANCELHE | VALE DO CHÃO |
| MW | 86.10 | 38.95 | 24.00 | 22.55 |
| # Turbines | 42 | 19 | 12 | 11 |
| Turbine model | 42 x MM92-100m | 19 x MM92-80m | 12 x MM100-100m | 11 x MM92-80m |
| Operation Date | Feb 2016 | Jul 2016 | Mar 2016 | Oct 2015 |
| Connection | Armamar | Armamar | Armamar | Penela |
| Status | Fully Operational | Fully Operational | Fully Operational | Fully Operational |

Moimenta

Moimenta wind farm is located in the municipality of Moimenta da Beira, district of Viseu in Northern Portugal. It is composed by 42 wind energy turbines, model Senvion MM92 with a hub height of 100 meters.

Sernancelhe

Sernancelhe wind farm is located in Northern Portugal, in the municipality of Sernancelhe, district of Viseu. Like in Moimenta, some wind farms are already nearby. The layout comprises 12 Senvion MM100 2.0 wind turbines with a total capacity of 24 MW.

Três Marcos

Três Marcos Wind Farm is located in Central Portugal, district of Viseu, and consists of 19 wind energy turbines, model Senvion MM92 with 80 meters hub height. 12 WTG are placed in the parish of Moledo from municipality of Castro Daire and 7 WTG are placed in the parish of Cota from the municipality of Viseu.

Picos Vale do Chão

Picos Vale do Chão wind farm is located at Serra da Lousã, in the center of Portugal, Leiria district, municipality of Castanheira de Pera, and district of Coimbra, municipality of Góis. It is composed of 11 wind turbines Senvion MM92 with a hub height of 80 meters.

IMPACT

With the addition of 171.6 MW power plant capacity, Âncora strengthens the country's energy supply and its renewable energies sector. With a feed-in tariff of just 68 Euro per MWh, the electrical power generated there will be available to the market at very inexpensive rates throughout the country. It also significantly reduces the average production costs of wind power. Today the average tariff for wind power in Portugal is approximately 94 Euro per MWh.

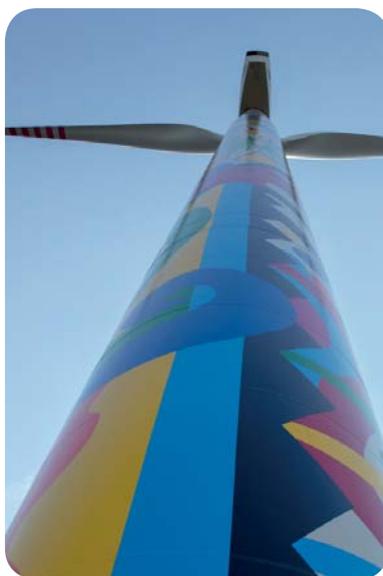
TECHNOLOGY

The combined total of 84 wind turbines for the four wind farms are from the MM series of Senvion and were manufactured in Northern Portugal.

PUBLICITY

Joana Vasconcelos and Vhils, two of the most well-known Portuguese contemporary artists, were invited, by Âncora Wind Energia Eólica SA, to sign the world's tallest contemporary art project - the WindArt. The international renowned artists, projected and drew the elements that cover two wind towers, approximately 100m tall and 50m wingspan (blade), totaling 150m.

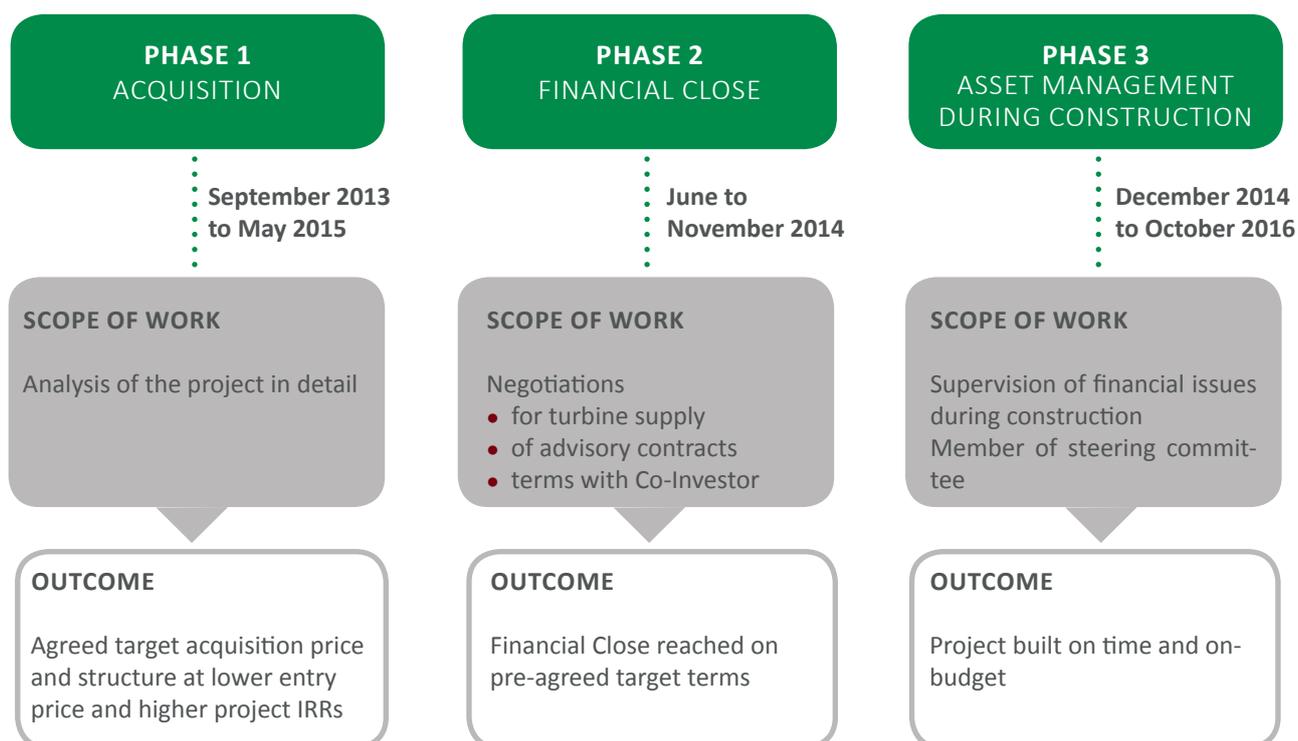
WIND ART PROJECT



| | MM100 | MM92 | MM82 |
|-----------------------|--|--|---|
| NOMINAL POWER | 2,000 kW | 2,050 kW | 2,050 kW |
| ROTOR DIAMETER | 100 m | 92,5 m | 82 m |
| HUB HEIGHT | 50 Hz: 74.5-76.5 / 78-80 / 98-100 m 60 Hz: 78-80 / 98-100 m | 50 Hz: 63.75-64.75* / 68-68.5 / 78-80 / 98-100 60 Hz: 78-80 / 98-100m** | 50 Hz: 58.5-59 / 68-69 / 78-80 m 60 Hz: 78-80 m* |
| CERTIFICATION | Up to IECIB / IIA; up to WZ 3 | Up to IECIA / IIA; up to WZ 4 *UK only; **CC only | Up to IECIA; up to WZ 4 *CC only |

ROLE OF MPC RENEWABLE ENERGIES

DURING ACQUISITION AND CONSTRUCTION:



DURING SALES PROCESS:

