

MOA signed with Morobe Provincial Government for Mayur's Enviro Energy Park (EEP) power generation project in Lae

HIGHLIGHTS:

- **MOA signed between Mayur Power Generation and Morobe Provincial Government for development of the Lae Enviro Energy Park (EEP) in Lae**
- **Represents full alignment and support from Lae and the Morobe Provincial Government for the development of the project**
- **Includes a framework to provide Morobe Provincial Government with all profit from steam sales, produced by the EEP as a by-product from electricity generation**

Mayur Resources Ltd (ASX:MRL) pleased to announce the signing of a Memorandum of Agreement (MOA) relating to the development of Mayur's Enviro Energy Park (EEP) power generation project in Lae.

This MOA brings together many years of work by Mayur and represents the full alignment of the Morobe Provincial Administration (MPA) and the Lae City Authority with the EEP project at the Western Tidal Basin precinct in the province's capital city.

The purpose of this MOA is to provide a framework for further cooperation in the strategic development of the Lae EEP project and the associated opportunities that flow from this to provide benefits to all stakeholders including jobs and improved standards of living in Lae and the wider Morobe region.

In addition to revolutionising electricity generation, an added benefit of the EEP is that it will also generate steam as a by-product that can then be provided to local industry in Lae. Steam is prolifically used in Lae by groups such as Frabelle, Cocoa Cola, SP Brewery etc and to produce steam they currently are burning high cost high polluting diesel.

The MOA also provides a framework whereby all profit from the steam sales will go to the Morobe Provincial Government. Based on the current steam loads in the vicinity of the Lae Western Tidal Basin, this should result in reducing steam costs to end users, such as the fisheries and food/beverage manufactures, by up to 50%.

******For further details refer to attached Media Release******

Enquiries

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Media Announcement

PARTNERS IN POWER: A NEW SOLUTION TO SUPPORT THE PEOPLE AND INDUSTRY OF LAE

Morobe Provincial Government, Lae City Authority and Mayur Power Generation are pleased to announce the signing of a Memorandum of Agreement (MOA) relating to the development of Mayur's Enviro Energy Park (EEP) power generation project in Lae.

This MOA brings together many years of work by Mayur and represents the full alignment of the Morobe Provincial Administration (MPA) and the Lae City Authority with the EEP project at the Western Tidal Basin precinct in the province's capital city.

Morobe Provincial Governor Hon Ginsou Saonu said "I recently wrote to PNG Power Acting MD providing my governments full support for the Mayur EEP and since then the long-term financial benefit to Lae City has been significantly increased and improved. With intervention at the highest level of Government in driving prices even further down, we now have a project that is bringing an initial 400 million Kina development into the province, several hundred construction and support jobs, hundreds of direct 25+ year long term operational jobs (with many hundred more support services jobs), the most reliable and cheapest IPP power cost into the Ramu grid, a long term revenue stream into Morobe from co generated steam sales, steam costs for Lae industry users being provided at half their current cost and very importantly cleaning up the air with the latest state of the art European technology that will see us come back into World Health Organisation compliance – which due to high reliance on heavy fuel oil and diesel usage, we are currently in breach of".

Upon signing the MOA, **John Rosso DPS MP Member for Lae & Chairman of Lae City Authority** commented "*this agreement signals an important first step in addressing the energy needs of our long suffering consumers. I am acutely aware of the need to take decisive action to improve our power supply, and the EEP project does just that. We will continue to advance the Lae EEP and our provincial government has already written directly to PNG Power to provide full support for the project*"



Mayur Managing Director Paul Mulder with Lae MP John Rosso and Morobe Provincial Governor Ginsou Saonu

EEP overview

- A new state of the art 60MW power station (2 units x 30 MW), utilising modern CFBC technology with the ability to use multiple fuels including coal, renewable biomass, solar and utilise by product heat as co generation – ability to expand to 200MW if there is demand.
- Will provide a significantly cheaper and far more reliable power supply for Lae and the Ramu Grid (100% supply guarantee with unit redundancy) and displace the current very high reliance on burning diesel and HFO for power, in this sense the EEP will also be a much cleaner option vs fuel oils.
- Will improve grid resilience and stability of the Ramu grid, addressing the severe shortage of inertia and frequency services (particularly for Lae businesses and residents), essential for a modern well-functioning electricity grid.
- Delivers the first significant efficient new base load generation capacity addition to the Ramu Grid since the building of the Ramu 1 hydro project over half a century ago.
- Will help bring the Ramu grid up to international standards and help the government achieve its mandated electrification rate from 13% to 70% of the population by 2030.
- Supports UNITECH with a fully funded Sustainable Energy Research Institute Joint Venture Commitment.
- Provides +300,000 Kina per year for the next 25 years for the Ahi Hope Foundation in conjunction with the Lae City Authority to benefit the local community.
- Provides PNG Ports Lae Division with several million Kina revenue per annum.
- Provides Gulf Province with a new mining Industry.
- Power price life of asset average between USD\$0.10 – USD\$0.79 cents kWh – lowest IPP cost on the Ramu Grid.
- Addresses the identified current off grid demand of 50MW in the Lae city vicinity.

The EEP project has also been endorsed by CEPA, having undergone a thorough independent assessment resulting in an environmental permit being granted for the project. This included air modelling the current state of emissions in Lae against those from the *to be built EEP*. This independent assessment concluded a significant improvement in the air quality will be achieved by the EEP from displacing the large number of diesel generators spread across the city. The largest benefit being from the reduction of acid rain causing Sulphur di-oxide and Nitrogen di-oxides gases that also impact respiratory conditions. The Gulf Governor the Hon. Chris Haiveta also has signed an MOA with Mayur for the use of coal from Gulf province. The project was also championed by the Deputy Prime Minister, Honourable Charles Abel to present to the Ministerial Economic Committee which it has now passed.

Confirming Plant Safety for Papuan New Guinean Residents – Benchmarking Visit to Australia

Being the MP for Lae, where the EEP Power Plant will be built, **Mr Rosso** recently requested to visit a coal fired power station in Australia, that is located next to a residential urban area, to better understand the impact of building a new power station close to an urban area. The plant he visited in Australia was 1,300 MW (2 times PNG's total annual electricity consumption) and was 26 times bigger than the proposed 50MW EEP on the Lae Western Tidal Basin. The Australian plant also uses older technology and is located nearer to homes than the proposed EEP in Lae.

Mr Rosso said *"I had heard all the stories and saw all the pictures but something did not add up to me as I know all other countries around PNG, and in the Asia Pacific use coal and will continue to use coal (in far larger quantities than what PNG is looking at) for the next 30 years.*

I wanted to see for myself and hear from independent power plant management whom have to abide by Australia's High Environmental standards. I also wanted to see what a comparable project would

look like and what it would mean for my people.

The power plant I visited in Australia was well maintained, clean, there were no visible emissions from the plant while operating with large filter systems, the immediately surrounding communities were pleasant, clean and the water in the adjacent lake and inlet to the power plant was clear and clean and full of fish life. I saw no obvious problems for the residents living near to the plant with many in the community benefitting from the power plant.

As the MP for Lae this visit showed me the value in looking for the best solution for my people which is to be open minded, not having preconceived ideas, prove things for myself and require an investigation and benchmark by independent experts looking at comparison projects. In this instance such initiatives have given me the assurance and comfort that no Papuan New Guinean should have a problem living near such a facility, being far cleaner for the environment against what we see in Lae today with use of heavy fuel oil and diesel for power generation polluting our residents air in the immediate vicinity – moreover the good news is that the Lae EEP is going to be 26 times smaller than what I saw in Sydney Australia, it will be located further away from the nearest residents and will use technology that is 30 years more advanced than the plant I inspected. Additionally, the power plant will provide significant employment and cost benefits that will benefit residents of Lae”.

Steam value add

In addition to revolutionising electricity generation, an added benefit of the EEP is that it will also generate steam as a by-product that can then be provided to local industry in Lae. Steam is prolifically used in Lae by groups such as Frabelle, Cocoa Cola, SP Brewery etc and to produce steam they currently are burning high cost high polluting diesel.

The MOA provides 100% of the profit from the steam sales to go to the Morobe Provincial Government. Based on the current steam loads in the vicinity of the Lae Western Tidal Basin, this should result in reducing steam costs to end users, such as the fisheries and food/beverage manufactures, by up to 50%. This will replace the need for users to self-generate steam via burning diesel (reducing emissions & reducing costs) and transform their operating costs and the bottom line. In addition this initiative could provide Morobe Provincial Government up to 100 million Kina over 25 years or 4.2 million Kina per annum. This does not factor future expansion growth of the EEP which is highly likely as a result of stable and cheap power and steam supply the EEP will provide.

Time to unlock Lae’s potential

Energy Minister Honourable Sam Basil commented *“The poor and unacceptable status of power supply from the Ramu Grid is one of the biggest impediments to development of this region of PNG. There is no reason why the Lae region shouldn’t be at the forefront of PNG’s economic activity in the Asia-Pacific region. Through this MOA we have taken the first step to unlock the true economic potential of the Lae region and the wider province”.*

He added *“our manufacturing is stifled as power costs are far too high and uncompetitive to produce anywhere near our capacity or capability. So whilst we are a jewel in the south pacific with our attributes of cheap labour, access to all the raw materials to manufacture and with coastal ports on the door step of Asia Pacific (the engine room of the global economy), the opportunity has largely gone begging.*

The clean emission capture/reduction technology we will utilise will massively reduce our current Sulphur Dioxide, Nitrogen Oxide and Particulate Matter levels, bringing emissions well below World Health Organisation limits, whilst reducing CO2 emissions and drastically reducing power generation costs. We are finally getting a win win solution in Morobe and in Lae for the environment and economically for our country.

The Gulf Governor since late last year has also been supporting this initiative signing an MOA of its own

already as it is the 'benefiting province' in supplying Morobe one of the energy sources (coal) the Lae EEP will use.

In elevating the welfare of our own people above the agendas of others, this Lae EEP initiative will diversify our resources sector, provide Morobe and particularly the Lae city the energy it needs from within PNG, rather than current practice where companies from jurisdictions such as Singapore, supply the most costly and highest polluting energy form of heavy fuel oil. All the while PNG denies its own people the revenue and sends foreign currency offshore. By not developing our own coal energy resources they will be exported used by other countries to manufacture goods and import it back to PNG – there is no sense in this.

We can expect a new power facility in just over 2 years from now.

We now wait on PNG Power to finalise the PPA that it requested in writing from Mayur Power Generation, which PNG Power has had since March 2016. Ideally this should have been processed by PNG Power already and the plant built by now where we would have got the jobs, improved air quality and received costs benefits, but due to the continuity of issues of senior management and the board in PNG Power we will need to wait 2 years for the EEP plant to be constructed. With strong support of Morobe Provincial Government, the Lae City Authority, support from the Manufactures Association, the Lae Chamber of Commerce and myself as Energy Minister, it is time that PNG Power now act swiftly to finalise this matter as the project is construction ready and there is no cheaper alternative ready to be built.

I want to be clear that any energy company that enters Morobe/Lae must know there has to be something material for the Morobe people through the Morobe Provincial Government and Lae City Authority. It is what we owe our citizens and this is a blue print of things to come.

It is now time for the people of Morobe to catch up with the rest of the world in enjoying and benefiting from access to cheap, reliable and cleaner power. I will release a press statement on energy shortly, as well as present a comprehensive position in parliament on this matter and bring to the fore the real need and approach to energy required and not through the lens of one company or bias NGO's.

Whilst there are always those that will criticise, I take this opportunity to outline that Australia enjoys its 1st world developed lifestyle with 70% of its total energy coming from coal, ours will be a fraction as of this as a percentage.

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