

# GREEN TARGET

## Body still warm

What this Macau Business environmental and Renewable Energies Supplement seeks to show is that Macau has arrived late, very late, at the scene of the crime with regard to addressing the problem of pollution and the need to find suitable alternatives to traditional fuels.

While it's true that certain measures have been adopted, they are relatively new and have thus yielded few results to date - with solar energy probably the best example.

Other initiatives - electric mobility and public transportation spring to mind - reveal a surprising shyness, even a reticence, to explore other measures which in the initial phase could be just experimental - as has happened in certain OECD countries (Organization for Economic Co-operation and Development).

Often the local approach has been lots of wind-driven eco-speak in the form of ultra-conservative forums and exhibitions, while the public in general remains blissfully unaware that there's plenty to do in the policy wastelands of waste treatment and sewer systems.

The truth is that in order for the city to galvanise itself into the 'World Centre for International Tourism and Leisure' as repeatedly advertised by the government, Macau the city must not continue to generate the high levels of pollution that are now so commonplace, with the environment worsening as the clock irrevocably ticks on - as demonstrated by the results of the last Evaluation Report.

With the help of visionary individuals, companies and organisations - yes, even from abroad - that have proven their sustainable growth credentials, Macau can do more and do better. The caveat, as always, is that the government must lead the way. It's not enough to join the race and lead it every once in a while. That applies to tortoises, as well.

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# Macau invests in Portugal's solar power

PORTUGAL HAS BEEN ONE OF CHINA'S BIGGEST TARGETS OF CHINESE COMPANIES, NAMELY IN THE ENVIRONMENT AND ENERGY AREAS. MACAU HAS ALSO CONTRIBUTED

**T**hese past years, China has become one of Portugal's largest foreign investors and that interest has also materialized in the energy and environment areas.

Most peculiar is the fact that Macau has helped improved Portugal's direct investment numbers, through CESL Asia's investment in solar energy power plants in the south of the country.

The investment is the result of a 2012 partnership with Magpower – a Portuguese company specialized in third generation solar power production –, and, so far, it resulted in an expected 200 million patacas investment in two power plants (one in Estoi, in Algarve, already operating, according to CESL Asia's website).

CESL Asia and Magpower plan to build up to three solar power plants, with a total investment that may reach 500 million patacas.

Magpower also planned to produce photovoltaic panels in Macau.

The idea was first announced in 2010, during that year's MIECF, but it eventually was dropped. However, this year, a CESL Asia official told a local newspaper that, "in a second phase, we want to improve the cooperation with Portuguese technology and establish a R&D and industrial unit in Macau, within a broader partnership with Magpower". Macau Business contacted the Portuguese company to learn more about those plans for China, but we received no reply yet.

This was Macau's contribution to the Chinese investment explosion in Portugal, but we have to mention REN's acquisition by State Grid and China Three Gorges acquisition of EDP. Since EDP's acquisition by the Chinese company, there has been a noticeable new dynamic in the renewable energies area.

The presence of State Grid Corporation of China in REN allowed for the creation of the Nester Research and Development Centre, in 2013, with the goal of becoming a reference in the energy research and innovation field.

According to the centre's top officials, "the centre aims to promote and implement research and investigation projects in the power systems simulation areas, renewable energies management, intelligent networks technologies and energy market. One of the main challenges is the network management with a larger penetration of energies from renewable sources".



There are other examples of how Chinese companies are interested in Portugal's renewable energies and environment sector:

Beijing Enterprises Water Group bought Compagnie Générale des Eaux Portugal (Veolia), for 800 million patacas, a company operating in Portugal since 1991 in the areas of water supply systems management and effluents draining and treatment. Currently, the Chinese company manages four concessions, in the Mafra, Ourém, Valongo and Paredes regions (120 thousand water supply customers and 85 thousand water draining customers);

In 2013, Chinese group Hanergy Solar communicated his intention to acquire two photovoltaic plants with 2.2 megawatts each, in Portugal. As far as we know the deal is yet to be concluded and, following the recent Chinese stock market crash that impacted the giant Chinese company, it's not likely to happen.

In the opposite direction, one of Portugal's main business conglomerates – Mota-Engil – entered the Macau market, through its participated company Indaqua, which has won a 5 years contract to manage and operate the Macau peninsula Residual Waters Treatment Plant, in 2011. ■



# Funding the future

THE ENVIRONMENTAL PROTECTION AND ENERGY CONSERVATION FUND IS ONE OF THE GOVERNMENT'S BIGGEST BETS ON IMPROVING THE QUALITY OF MACAU'S ENVIRONMENT

Of all the initiatives put forward by the Macau Government, mainly since 2010, and in the area of energy conservation and the reduction of pollutants emissions, the Environment Protection and Energetic Conservation Fund is the measure that has produced the best results and is one of the SAR's most important.

The Environmental Protection and Energy Conservation Fund was created in 2011 with the goal of 'encouraging Macau's companies and associations to use products and equipment that allow better environmental quality, energetic effectiveness and water savings'. The fund has its own budget – the grandly named Plan of Financial Support for the Acquisition of Environmental Protection and Energy Conservation Products and Equipment.

Starting in September 2011 up until 31st July 2014 some 5,700 applications were submitted and about 3,300 approved, meaning more than 200 million patacas was granted in financial support.

Basically, the support provided served to acquire or replace 'energy efficient lamps and air-condition units, air purifiers, electrostatic exhaust units for oily fumes, energy efficient stoves, hot water systems with water flow reducing mechanisms, food residues treatment machines and water flow reducing apparatuses'.

Encouraged by the Fund's good results, and conscious of the fact that existing regulations are insufficient to handle all existing issues, the government recently published a series of decisions to clarify the criteria that denies financial support from the Fund.



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# Centralising Power

CESL ASIA ADVOCATES MORE ENERGY AND NEW INFRASTRUCTURE,  
ORGANISED MORE EFFICIENTLY

It's unlikely that any other private company has profited as much from Macau's environmental demands and characteristics as CESL Asia. And they're not stopping here.

Through its subsidiaries, the company has invested primarily in energy and the environment, although they have businesses in other areas, such as construction and engineering.

According to recent declarations from the company's CEO, CESL Asia is preparing for new business opportunities

in Macau, namely those resulting from the need to update public infrastructure such as water treatment and incineration of residues facilities.

António Trindade has publicly alerted the Macau SAR authorities to the fact that these structures, crucial to Macau, are reaching capacity and require updating to handle current needs, as well as future local demand. The sewer system sits at the top of the priority list.

CESL Asia already manages the Macau Peninsula Residual Waters Treatment Plant (ETAR) and, in 2014,



António Trindade



generated roughly 800 million patacas in business. It is well positioned for any scenario the government defines for the future: new installations/networks or, when possible, upgrading existing facilities.

Another area where CESL Asia is well placed to be a power player is the energy sector.

The company has some experience in the area (see elsewhere this special report regarding solar power investments in Portugal) but it definitely wants to grow and take any opportunity that, sooner or later, the region will offer.

For now, in Macau, CESL Asia is equally interested in electricity production, distribution and consumption.

Regarding consumption, the intention is to introduce more efficient energy consumption models (a growing consumption, as supported by statistics).

On the other hand, Trindade has suggested that production and distribution be de-centralised, placing them both in the Macau SAR. The CESL Asia president believes that will represent an efficiency gain that the entire population can benefit from.

Recently, Trindade – who is also founder and president of MEPI, the Macau Environmental Protection Industries Association – alerted society to a reality that may seem sci-fi to many but which he suggests is a credible scenario: Macau may very suddenly run out of electricity. All it would take is for some sort of problem to happen somewhere in China.

The phrase he used in an interview published this year was “nobody can guarantee us that there will be electricity in Macau tomorrow”.

The solution is to locally produce energy, especially from renewable sources, he believes, which places the question of improving energetic efficiency at the same level as altering local energetic management. For example, Trindade has questioned why each resort has its own power plant and why things can't be organised in a more integrated fashion.

Other topics that the CESL Asia CEO has publicly addressed – besides the need to update local environmental management infrastructure and the energetic challenges the city faces – are transportation, directly linked to pollution, and solid waste.

With regard to this particular matter, António Trindade believes that new solutions should be introduced which take into account the fact that pollution is inevitably increasing and that Macau cannot afford to ignore all the waste that stays in the region and its consequent impact upon the population's day-to-day existence.

Thus, recycling must become the norm in Macau: rather than trash being burned or buried, the value of what is currently perceived as waste must be understood. ■



## ASIA'S LARGEST INDUSTRIAL LAUNDRY FACILITY

CESL Asia is responsible for managing Asia's largest industrial laundry unit and one of the largest in the world.

Created in 2008 by now Secretary for Economy and Finances Lionel Leong, it handles 30 to 35,000 uniforms per day, mainly from hotel workers. Macau's hotels, in fact, are Smartable's best customers (Sands; Wynn; Galaxy; MGM, among others). Daily, it processes 72 tones of tablecloths and bed linen plus an extra five tones from the F&B sector.

CESL Asia employs nearly 1,000 workers, almost half of whom work in the laundry plant located on the Concordia Industrial Park (CESL Asia's CEO said that the figure should double next year). It started with just 190 workers.

Smartable (<http://www.smartable.com.mo>) is ISO 9001 certified since 2008.