





#### EXPLORING THE BENEFITS OF THE MINING-SOLAR COLLABORATION IN CHILE



As a renewable energy developer and Independent Power Producer (IPP) in Chile, Rijn Capital Chile is committed to working with mining companies to help them explore solar energy and other renewable options, says General Manager Jorge Amiano Goyarrola. Amiano emphasizes that the cost for solar PV in Chile can be approximately 20 percent less than what most mines are already paying for energy.

#### Q: First, can you tell us about your experience working with the mining sector in Chile?

A: Mining and renewable companies in Chile have very different mindsets. Mining companies are enormous and have more than a hundred years of history versus renewable companies, which are generally small and usually have existed for less than ten years. You're comparing elephants and ants. We are tiny suppliers for their big projects and it is really





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difficult to reach decision makers. They are not really accessible, and that's a challenge.

Normally, as a developer or IPP in the energy industry, you sign a PPA and this is what gives you the ability to finance your activities and build power plants. In this case, there is such a fierce competition within the Chilean market and with energy tenders that the only way to differentiate is to build the PV plants first. And this is what Rijn and a bunch of other developers have successfully done. We expect that building the facilities will help mining companies to sign PPAs.

Having said that, the energy supply for the mining companies is very important because it's 20-30 percent of their P&L costs.

#### Q: How would you describe the current opportunity for collaboration between mining and solar PV in Chile?

A: We see a great opportunity. First, renewables are accepted by local communities as friendly and sustainable. Second, renewables are competitive in price. Our offerings are sometimes more than 20 percent cheaper than the prices mines are already paying for energy.

Third, there is sometimes opposition from people to mining projects in Chile because of environmental issues. So partnering with renewable energy providers can help [mining companies gain] acceptance from society. They benefit because we're friendly to the environment [and] partnering with



Chilean mines are actively seeking new energy solutions to reduce and secure energy costs for grid-connected and off-grid operations. With energy accounting for 20-40% of operating costs, reducing electricity expenditure is a now a major operational and strategic goal for Chile's mining leaders and renewables is set to play a significant role in meeting this aim for remote and grid-tied mines.

Following sell-out events in Toronto and Johannesburg, the 4th Renewables and Mining Summit & Exhibition will showcase the latest renewables-mining projects from Chile and address the key challenges for additional projects including innovative finance solutions.

Join representatives from mines and the renewable industry including:

































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"Our offerings are sometimes more than 20 percent cheaper than the prices mines are already paying for energy." us is a way of correcting the damage from the past.

# Q: Aside from your projects with mining clients, can you tell us more generally about your experience in developing solar projects in this market?

A: It takes a long time to get things done with the Chilean government, mainly with the Ministry of National Assets. In one case, we had a plan and thought we were going to reach ready-to-build at a specific date, and we finally got approval six months later

Having said that, we view our San Pedro III Project as a great success because we were able to develop and build the project without any court issues or opposition. We built and financed San Pedro III in less than six months and we are able to produce energy at 20 percent less than the official average contract price of the SING system.

## Q: What are some of the benefits of solar PV for powering Chilean mining operations given the energy challenges of the local mining sector?

A: I find many benefits. First, there's the commercial one of having energy more competitively priced. Second are the environmental benefits and the positives of how renewable, sustainable energy is viewed by the community.

Third, in Chile, PV plants in the north are located near mining operations. Therefore, you are freeing up transmission facilities. Renewable energy reduces the transmission system requirements and that's good for a country with a stressed transmission system.

Finally, solar plants are at remote areas. Local communities can benefit from the transmission systems attached to the generation facilities. For example,



"Renewable energy reduces the transmission system requirements and that's good for a country with a stressed transmission system." Rijn Capital Chile is working with the Ministry of Energy and CGE Group on a project to interconnect San Pedro de Atacama to our facilities and provide them with sustainable energy.

#### Q: What are some of the challenges that need to be understood when developing PV for mines in this market?

A: The biggest challenge is being creative in order to be able to supply energy 24/7 baseload. It's a challenge to solve that issue without incurring market risk.

### Q: What is critical to ensuring project success and approval from surrounding communities and government regulators?

A: Usually, communities support solar plants because they don't harm the surroundings. People are not angry when we arrive there. However in all cases, it's important to listen to the other parties and find out what they need and see how we can help.

# Q: What are you looking forward to at this year's Renewables and Mining Summit & Exhibition in Santiago on May 6-7?

A: We want mining companies to know us and know what we're doing. We are hoping for a PPA for our San Pedro III project and some other projects in our 500-megawatt pipeline. We want mining companies that are interested to know they can call us, and we'll explain more.