



## THE PV STRATEGIES OF IAMGOLD



*In this Q&A interview, Ronald Halas, VP Commercial, South America at IAMGOLD outlines the main considerations and decision making processes undertaken when mining companies address the challenges of powering remote operations. Arnel Florent Djeunag, Continuous Improvement Specialist from IAMGOLD will be speaking at the Renewables and Mining Summit, Johannesburg, June 23-34. Steve Letwin, CEO of IAMGOLD will be speaking at the Renewables and Mining Summit and Exhibition on October 15-16, Toronto. For full details visit [www.energyandmines.com](http://www.energyandmines.com)*

**Energy and Mines:** How are energy decisions made for your various mine sites – how is your energy team organized?

**Ronald Halas:** IAMGOLD does not have a central energy team, but we do have a number of key individuals that meet to discuss the efficiency of the existing and future energy solutions for our Operations.

Each of our sites has its own unique circumstances. For example, at our mines in Quebec, there is the opportunity to receive power at relatively low rates, since the mines are connected to the Hydro Quebec grid.

In the case of our Essakane mine in Burkina Faso, the location is far from the existing national infrastructure, so we self-generate on-site at a high cost. To improve our costs here, our central engineering team in Canada is leading studies into alternatives such as solar and connecting to the grid. The ultimate decision for either of these projects would be made by the company's executive

management team with Board oversight of the overall capital budget.

**EAM:** Can you please give me a brief update on your 5 MW project in Suriname – what stage are you at and how are you implementing this project (i.e. what have you outsourced etc.)?

**RH:** We entered the construction phase in April, 2014, and are on schedule for commissioning during the third quarter of 2014.

The project moved swiftly and smoothly from the preliminary feasibility study stage to the detailed design and Construction stages. Our in-house engineering and construction department have managed a number of American and Surinamese contractors to advance this project. We commissioned Renewable Energy Resources Corporation (a WTEC Company) to do the detailed engineering and commissioning plans.

**EAM:** Please describe to me how you came to investigate solar energy as an option for addressing your energy challenges at this site – what were the main drivers?

**RH:** Energy costs make up an increasing proportion of our overall cost of production, therefore, we wanted to find a means to reduce our operating cost. At the same time, we gain the added benefit of reducing our carbon footprint. We are also aware that the Republic of Suriname is very interested to see the benefits of renewable energy.

**EAM:** What was the approval process like for this project – who was involved in the approvals?

**RH:** This renewable energy project followed the standard hierarchy of approvals for IAMGOLD capital

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projects, which involves approvals both in Suriname and at the head office in Toronto.

**EAM:** How are you going to measure the ROI on investment for this project – what particular metrics will you be tracking?

**RH:** The key for me will be to confirm the cost per kWh of energy provided by this system. We will share this information with the local utility and university so that other potential solar projects in Suriname can gain from our experience.

**EAM:** Do you have some advice for another mine who is beginning to look at this as an option – what are some of the key lessons learned?

**RH:** As with any type of project, having the correct personnel involved is one of the keys to success. If the right skill sets are not available in the company, then very early in the process, these must be acquired. Having one group involved from the concept stage through to commissioning, and possibly into the operation phase is an important consideration.

**EAM:** Could you please tell us about what you are beginning to consider for your site in Burkina Faso – what stage are you at in the process?

**RH:** The team in Burkina Faso is considering several opportunities to reduce the overall power cost. The installation of a large solar farm is one of the options receiving the greatest attention at this time.

**EAM:** Again, please tell us about the key drivers for this particular site?

**RH:** All gold mines are looking to reduce the overall cost to produce

gold. As the cost of energy is a significant component, this is an obvious area to improve costs.

**EAM:** How do you see the use of renewables evolving for mine sites over the next 3-5 years?

**RH:** The capital cost of the solar panels has dropped significantly over the last 5 years. This helped the economics of the project in Suriname. If the prices continue to drop, I think that we will see ever more mines installing solar PV panels.

The next innovation that we need to see to further enhance the renewables industry is an improvement in the ability to store power. In our case in Suriname, we are still grid-connected, so that when the solar facility is not provided energy to the operation, then we can rely on the grid. For those more remote operations that are not grid-connected, cost-efficient energy storage will be the catalyst that will allow 100% renewable energy use in the future.

**EAM:** What advice would you offer a renewable energy expert (supplier or developer) who is looking to cater to the specific needs of potential mining clients – what would help your job?

**RH:** There are many experts and suppliers available in this market today. For those companies that may not have the in-house expertise and cash available to install the renewable energy systems that they may desire, the key would be someone who can provide a turn-key solution whereby the supplier finances the installation, and is reimbursed on a per kWh-basis.

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