



**News Release  
For Immediate Release**

**19.3% Efficiency at Solar Module Level with Roth & Rau HJT Combined with Day4 Energy Module Technology**

**Burnaby, BC, September 7, 2011** - Day4 Energy Inc., a leading global provider of solar photovoltaic (PV) products and solutions and Roth & Rau (R&R), a world leader in mass production equipment for solar cell production announce that a first module with an efficiency of 19.3% (cell area) has been produced. The new cells and PV modules utilize R&R's [Heterojunction Technology](#) and Day4's [DNA Technologies](#).

Roth & Rau has already announced the latest results of Heterojunction Technology at the cell level at the current 26th European Photovoltaic Solar Energy Conference. Heterojunction Technology offers superior passivation properties compared to standard cell processing technologies, leading to high efficiency and very favorable temperature behaviour. Moreover, the production process has very few production steps and is fully compatible with thin wafer technology and is therefore very cost-effective. The combination of this advanced cell technology with Day4's DNA Technology further enhance the value proposition for customers, because efficiency losses from cell to module can be minimized and substantial savings in silver paste consumption are realized. Day4's DNA Technology enabled fine line fingers of 70 micron width and 10 micron height resulting in a 2% short circuit current (Isc) gain and a 69% silver paste savings when used in the R&R Heterojunction cells.

The core of Day4 DNA technology is the patented [stay-powerful Technology](#). This innovation is a direct replacement of the conventional, high temperature solar cell soldering process and is comprised of a polymer film embedded with a number of copper wires specially coated with a proprietary, low-temperature melting point alloy. This establishes a low-resistance electrical contact with the surface of the PV cell creating over 2,100 independent electrical contacts. This seemingly simple change to the standard process triggers a number of far reaching benefits, including improved PV cell efficiency and mechanical stability, exceptional PV module power density and better long term performance in the field.

"With better performance from mono and multi crystalline cells, and serving as a platform for a variety of cell types including large area back-contact cells, thin-film cells, ultra thin Si cells, large format Si cells, and heterojunction PV cells; the Day4 stay-powerful Technology has proven to be key to bringing to market some of the newest innovations in solar cell design," says George Rubin, president of Day4 Energy Inc.

"Day4's stay-powerful Technology is an ideal platform for delivering advanced module technologies in combination with our Heterojunction technology. The collaboration is an excellent fit for both companies," says Dr. Dietmar Roth, CEO of Roth & Rau AG. "We are excited to unveil a 60 cell module at the [26th European Photovoltaic Solar Energy Exhibition](#) in Hamburg, Germany, 5-8 September, 2011. Visitors are welcome to the Meyer Burger / Roth & Rau booth located in Hall A1, Stands B7 & A14."

The Day4 DNA brand encompasses three proprietary technologies that result in superior performance over standard modules: [stay-powerful Technology](#) interconnects solar electric cells in a unique way



resulting in superior energy collection even in low light conditions; **work-smart** Technology ensures solar panels collect electricity when partially shaded by nearby trees, buildings or debris, generating more electricity in daily operations and over the life-time of the product; and **live-long** Technology enables superior performance in harsh climates due to a watertight back-sheet with an aluminum layer that protects against challenging weather conditions, moisture, salt-mist and harmful gasses from greenhouses and farms that can affect the amount of energy delivered by a solar PV panel.

For more information on Day4 Energy and to view detailed animations on each technology, please visit [www.day4energy.com](http://www.day4energy.com) or join the conversation by following Day4 Energy on social media applications such as [Twitter](#), [Facebook](#), [LinkedIn](#) and [YouTube](#).

###

### **About Day4 Energy**

Headquartered in Vancouver, Canada, Day4 Energy is a leading global provider of solar photovoltaic products and solutions. Active in the areas of research & design, manufacturing, technology licensing and all aspects of project management, Day4 Energy is enabling the growth of solar energy throughout the world. Day4 is listed on the Toronto Stock Exchange under the symbol "DFE". For more information, please visit [www.day4energy.com](http://www.day4energy.com).

### **About Roth & Rau**

For the last 10 years Roth & Rau AG has been a world leader in photovoltaic production equipment and innovative manufacturing technologies, focusing on the production of solar cells, the most technologically demanding value-adding step in the PV module manufacturing process. This is why Roth & Rau centers in on innovation and technological development, as well as on comprehensive, professional support for our customers, as the fundamental prerequisite for the cost-efficient mass production of PV products. For more information please visit [www.roth-rau.de](http://www.roth-rau.de).

### **Investor Relations Contact**

Therese Hayes  
Head, Corporate Development  
Day4 Energy Inc.  
(604) 345-6771  
[thayes@day4energy.com](mailto:thayes@day4energy.com)

### **Media and Public Relations Contact**

Agnieszka Pozniak  
Marketing Manager  
Day4 Energy Inc.  
(604) 296-0415  
[media@day4energy.com](mailto:media@day4energy.com)

### **Forward Looking Statements**

*This news release contains forward-looking information. These statements relate to future events or future performance and reflect management's current expectations and assumptions. A number of factors could cause actual events, performance or results to differ materially*



*from the events, performance and results discussed in the forward-looking statements. These forward-looking statements are made as of the date hereof and the Company does not assume any obligation to update or revise them to reflect new events or circumstances.*