



# EUROBAT

## **The Photovoltaic and the Battery Sectors recognize the key role of Energy Storage in the future development of photovoltaic power.**

**Brussels, 2008 - "Energy storage technology will become an important, value-added component in photovoltaic (PV) systems in the future and will contribute to the continuous long term growth of PV". That is the conclusion reached by a joint working group convened by EPIA (European Photovoltaic Industry Association) and EUROBAT (Association of European Storage Battery Manufacturers).**

Based on estimations of cost models and market potentials, The EPIA/Eurobat working group is investigating the future role of energy storage in on-grid PV installations to determine under which circumstances it will become economically beneficial. Whereas energy storage is already widely used within photovoltaic (PV) off-grid installations, its role in on-grid applications is more complex to assess. The initial findings show that energy storage in combination with decentralized PV installations could add value by making on-grid PV more attractive in the future to both consumers and utilities. This will help to achieve environmental targets, accelerate the penetration of renewables, increase energy efficiency and reduce fossil fuels consumption and related greenhouse gas emissions.

Currently, a growing number of countries have well working feed-in tariff systems in place which enable PV electricity mass production, driving costs of PV electricity down to expected grid parity by 2015 in European Southern regions and to most of Europe by 2020. Grid parity will further accelerate the broad introduction of decentralized PV to the market.

In a liberalized electricity market, adding an energy storage component will further enhance the attractiveness of the system, as it enables the excess of PV electricity to be stored and be dispatched in a predictable way into periods of high demands where electricity prices are higher. However, in order to be economically viable on a large scale, additional system design, optimization and cost reductions are necessary.

Energy storage will effectively 'time-shift' the peak PV electricity produced around the middle of the day, to make it available on demand, hence maximising usage of locally produced electricity. Surplus electricity can also be fed back into the grid during peak demand periods, for which the utilities will pay higher prices due to the high demand. "For the coming decade, the output of PV systems can be used to effectively decrease the pronounced afternoon electricity peak demand (e.g.: In Germany, up to 20 to 30 GWp can be installed without expanding the transmission network, as it has been demonstrated in the recent German study from ISET institute of solar energy technology in Kassel), and in the long term to decrease the evening peak demand by making use of the surplus electricity (PV electricity non-consumed) stored during the day", adds Dr. Winfried Hoffmann, President of EPIA.

Storing PV energy makes economic sense today in off-grid systems and can also play an important role in on-grid Systems in the future, such in areas where better energy continuity is needed, such as areas with a high number of electricity black outs. Under the anticipated scenario of raising electricity price, battery storage will become increasingly competitive for grid connected applications.



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Energy storage will also increase security of supply and relative grid independence. The proposed solutions will therefore boost the development of energy self-sufficient houses and buildings and contribute to the continuous growth of PV as part of the global energy mix.

The main benefit of on-grid energy storage for utilities is that it will reduce the peak load on their grid (with the corresponding reduction of electricity cost) while making Photovoltaics predictable and dispatchable power that can be called on when needed. This would foster the PV market penetration which in turn will help governments to meet their environmental targets.

### **The next steps**

"Energy storage has a key role to play in both on-grid and off-grid PV systems. The two associations will develop a common action plan to identify the most appropriate storage technology for each application and to determine the roadmap for successful market introduction thus helping to achieve global environmental targets", said Ray Kubis, chairman of EUROBAT. Both, the battery industry and the PV industry would benefit from competitive PV systems

including storage. The cooperation between the two associations leads to a win-win situation for both industries. EPIA and EUROBAT will continue to work on the common goal: a reliable, clean and cheap decentralized electricity supply.

### **About the European Photovoltaic Industry Association**

*With over 150 Members drawn from across the entire solar electricity sector, the European Photovoltaic Industry Association represents over 95% of the European photovoltaic industry. EPIA represents the whole value-chain of the photovoltaic industry from silicon producers, cells and module manufacturers to system providers. EPIA's mission is to deliver a distinct and valuable service driven from the strength of a single European photovoltaic voice. More information can be found on [www.epia.org](http://www.epia.org)*

### **About Eurobat**

*Eurobat is the unified voice of the European automotive and industrial battery industry in policy discussions involving the industry and the European Institutions and national governments. Eurobat, the Association of European Storage Battery Manufacturers, has 32 regular and associate members. Eurobat represents over 85% of the production of automotive and industrial batteries in Europe. Companies belonging to the Eurobat membership are listed here:[http://www.eurobat.org/our\\_members.html](http://www.eurobat.org/our_members.html). More information can be found on [www.eurobat.org](http://www.eurobat.org).*

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