

ADEME & VOUS

International newsletter

No. 30 - September-October 2014

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Editorial

BRUNO LECHEVIN,
President of ADEME

The energy transition is underway

France has committed to a new energy model, a long process initiated following lengthy democratic discussions and finalised in a draft bill on the energy transition. The aim is to put our society on the road to achieving the "factor 4 by 2050", which, in ADEME's scenarios, means a 50% drop in energy consumption and the massive rollout of renewable energies in French regions. As a result, this bill takes its cue from the regions, reassures them that they are on the right track, and deploys best practices across the board. ADEME is attentive to the ambitious targets that will be set in the final Act when it is passed, but also the measures liable to create the conditions needed to generate action in our regions and the adoption of the energy transition at all levels. We will need to revisit our governance models to ensure more balanced participation of all public and private stakeholders in supply and demand.

The future Act is also central to the energy transition. It will therefore need to come with an action and mobilisation plan and complete other legislative texts, such as those concerning decentralisation and the draft budget. Environmental taxation will have to be one of the drivers for the energy transition while being synonymous with a double economic and ecological payback. /



© Solar Decathlon

Solar Decathlon **Tomorrow's sustainable house**

A unique international university competition to design and build an energy autonomous, solar house: that was the brief for the Solar Decathlon held in France last July.

From 27 June to 14 July, France hosted the 2014 Solar Decathlon Europe, at the Cité du Soleil in Versailles. This prestigious university competition, created in the United States in 2002, attracted 20 teams from around the globe with a brief to design and build an energy autonomous, solar-powered house. The Italian team won first prize with their RhOME For DenCity prototype situated within the vicinity of the Tor Fiscale, a 30 metre high tower built in the Middle Ages in southeast Rome.

The second prize was awarded to Atlantic Challenge from Nantes (France), for their Philéas project. It involved the positive energy refurbishment of the abandoned CAP 44 building located on the banks of the Loire River in Nantes, as well as the "fertile city" concept based around an educational farm and rooftop greenhouse.

The third prize went to the Delft (Netherlands) team for their A Home With a Skin prototype. This concept responds to the need for thermal retrofitting the 1.4 million Dutch terrace houses each of which also has its own garden.

ADEME was a Solar Decathlon sponsor alongside the CSTB (French Building >>>



The Atlantic Challenge team from Nantes (France) poses in front of their Philéas project at the 2014 Solar Decathlon in Versailles.

>>> Technical and Scientific Centre), and was involved in organising events to focus on the close link between technological innovation and the energy transition. Bruno Lechevin, President of ADEME, explained that *“energy efficiency, renewable energies and technological innovations are at the heart of the energy transition and ecological approach promoted by the French authorities and the Agency”*. The Solar Decathlon was an effective way to promote these topics, an exceptional meeting place to discuss eco-construction and renewable energies, and a focal point for energy innovation in the building industry.

TUNISIAN AND MOROCCAN CONSULTANTS AND THE LEBANESE DELEGATION

Eco-companies were able to take part in meetings organized by the Agency to address sustainable building issues: meetings of the BEEP (Bati-Environnement-Espace-Pro) network, Île-de-France regional conference on renewable energies incorporated into buildings, national meeting of Energy Information Centre consultants, etc. For this event, ADEME welcomed Tunisian and Moroccan consultants to discuss with the French network how to adapt tools like Simul'Conso (simulation of citizens' energy consumption), and the role of consultants. A delegation from Lebanon (LCEC, the Lebanese Centre for Energy Conservation) also visited the prototypes exhibited at the Solar Decathlon to expand their knowledge of building energy efficiency. Finally, an information meeting about European inter-programmes was organised by the Agency on 4 July. The day was used to present the financial opportunities available through all European programmes relative to energy and the environment (H2020, COSME, Structural Funds, Life, Interreg, etc.), together with testimonials from French project leaders about European success stories. /

www.solardecathlon2014.fr

FEEDBACK /
Philéas, an ambitious project

The Atlantic Challenge team from Nantes (France) with their Philéas project decided to work on the notion of urban sprawl, building rehabilitation and the creation of links between inhabitants. The 1:1 model of an insert for the refurbished building was awarded first prize in the energy efficiency category and second overall in the competition, just one point behind the winning team from Rome (Italy).

www.solarphileas.com/fr



Solar energy
Sun beams
and abroa

Diversified and reliable, all forms of solar energy have a key role to play in the energy transition. ADEME has therefore opted actively to support the development of these technical solutions going forward.

Conventional photovoltaic, solar thermal, thermodynamic solar and concentrated photovoltaics: there is a plethora of solutions for producing renewable solar energy and new options are being developed, such as hybrid technology. Photovoltaic is still by far the most advanced and we already know that it will easily reach the target set under France's Grenelle Environment Forum, that is, provide 5,400 MW of installed power by 2020. At the end of June 2014, France already had 5,095 MW



© Arnaud Bouissou/MEDDE-MLET

01



02



www.ademe.fr/domaines, *Renewable energies and materials*
www.promes.cnrs.fr (in French only)

**EOI**

- *Renewable energies:*
ami.enr@ademe.fr (closing date: 2 October 2015)
- *Smart electrical systems:*
ami.reseaux@ademe.fr (closing date: 11 September 2015)
- *Energy storage and conversion:*
ami.stockage@ademe.fr (closing date: 28 January 2015)

s in France and

installed. ADEME's Energy Visions even estimate that the bar could be reset higher than 30,000 MW by 2030.

ACTIVE SUPPORT TO PROMOTE PHOTOVOLTAIC

The Agency actively supports the various segments of this energy industry. For example, it is helping structure the photovoltaic segment by funding R&D projects or demonstrators through its Future Investments programme and calls for research and development projects. Established in conjunction with the photovoltaic roadmap, these calls for projects aim to boost cooperation between industry and laboratories in order to improve the technical, environmental and economic performance of photovoltaic components and systems. At the same time, ADEME encourages the development of more in-depth knowledge of the environmental impacts of photovoltaic technology and backs public policies aimed at encouraging the cleanest technology. Finally, ADEME is also involved in improving photovoltaic component quality and durability by contributing in particular to defining certifications and working on standards applicable to these systems.

TWO FUNDS SPECIFICALLY FOR THE SOLAR THERMAL SEGMENT

ADEME is just as active in its support for the solar thermal segment. For example, it encourages R&D through calls for projects aimed at improving equipment performance. In 2012-2013, the Agency carried out a study into the competitiveness of this segment and helped organise the solar thermal conference. At the end of this event,

the segment, supported by the Agency, submitted a proposal for the "Industrial competitiveness of strategic industries", published at the time by the French Ministry of Industrial Recovery to help structure high-potential segments. Finally, ADEME funds collective solar thermal projects through its Heat Fund.

PROMISING GROWTH PROSPECTS

These strategic decisions are not the result of chance: the prospects are indeed promising for the photovoltaic and the solar thermal segments. For photovoltaic, the significant progress noted abroad (particularly in China, Japan and the United States) points to excellent business opportunities for French industry on the export market. In France, tapering production costs for some market segments should provide the industry with a shot in the arm starting in 2016-2020. The outlook is also promising for the solar thermal segment despite the current economic context: almost 50% of energy consumed in France is used for the production of heat at less than 250°C, for which solar thermal is ideally suited. The Relaunch Plan published by the solar thermal conference targets developing the industry into new segments - industry and agriculture in particular - and upskilling professionals thanks to technical tools, such as the www.solaire-collectif.fr website (in French only). /



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Go further

NEW CALL FOR EOI FOR RENEWABLE ENERGIES

In 2014, ADEME published a new call for expressions of interest (EOI) in renewable energies. Photovoltaic demonstrator, solar thermal and even hybrid projects are all eligible. In the area of photovoltaic, projects for innovative systems or processes, and new solutions for its integration in buildings are particularly welcome. Solar thermal projects should target buildings, industrial processes and district heating networks. Proposals should be presented by consortiums of industrial firms and research laboratories. The call for EOI closes on 2 October 2015, with two interim project appraisals on 3 September 2014 and 3 March 2015.



www.ademe.fr/appels-propositions



© Philipus/Fotolia

ADEREE / ADEME-BMWi twinning A successful partnership

In December 2011, ADEME, ADEREE¹ and BMWi² started up a twinning programme funded by the EU to encourage the development of energy efficiency and renewable energies in Morocco.

Morocco is making great strides in its energy efficiency approach, driven by its high energy dependency (97%), and so by the need to improve the security of its supply. After passing the energy efficiency act in 2009 that sets a 12% target for energy consumption reduction by 2020, ADEREE was created in 2011. The twinning programme will work to strengthen the new agency's institutional and technical capabilities, and support its organisation and operation. It involves some 50 European experts, of whom 40 from ADEME, who were able to contribute to current projects. After 30 months' work, more than 150 missions completed representing 500 days of expertise on site, over 650 trainee-days and four study visits in France and Germany, this programme is already achieving outstanding results that have embedded the new Agency as a permanent part of Morocco's energy landscape. The initial numerous discussions aimed to define the Agency's communication strategy, direct training on public policy tools, develop human resources and IT network management, and explore budget programming.

"Further, the building sector is a huge source of energy savings", explains Thierry Méraud, ADEME expert seconded to Morocco for the twinning programme. The programme has therefore also sought to encourage the emergence and application of new thermal regulations in new builds, notably by training professionals and ADEREE engineers, tracking pilot demonstration projects and helping to modernise the Agency's educational GREEN Platform in Marrakech. Support was also provided for the regional and local energy efficiency strategy that ADEREE implemented by introducing innovative approaches at the regional level, such as, the integration of an energy efficiency approach in municipal development plans, the rollout of the first "Energy Information Site" in Chefchaouen, and the launch of a Moroccan energy label project. "Finally, we should mention the preparation of an ambitious energy efficiency programme for industry", adds Thierry Méraud. "It includes training in how to perform energy audits, the definition of a mandatory threshold and the rollout of a certification system for engineering offices."

In general, the contribution of the twinning experts to the discussions within the context of the energy efficiency conference chaired by ADEREE in 2013 was a significant factor in defining Morocco's energy strategy for 2030. This initial experience clearly highlighted the interest of such an approach for the Agency. The exchanges with ADEME are set to continue under the forthcoming renewal of the bilateral cooperation agreement between the two agencies, especially since ADEREE has submitted a request for a new twinning phase to the EU's Delegation in Rabat.

1. Moroccan agency for the development of renewable energies and energy efficiency.
2. German Federal Ministry of Economics and Technology.

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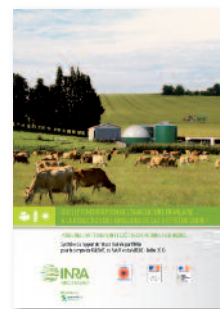
PUBLICATIONS /

ADEME ENERGY TRANSITION SCENARIOS: 2030-2050



In 2012, ADEME pooled its technical and economic resources to draw up energy transition scenarios for 2030-2050, providing in-depth information detailing all hypothetical scenarios, along with a summary including initial content from the macro-economic evaluation.
 Ref. 7846 (French) and 7942 (English)
 Free to download:
www.ademe.fr/publications

HOW CAN FRENCH AGRICULTURE CONTRIBUTE TO REDUCING GREENHOUSE GAS EMISSIONS?



ADEME and the French Ministries of Agriculture and Ecology commissioned the French National Institute for Agricultural Research (INRA) to conduct a survey of French agriculture. The aim was to identify and analyse ten measures relating to agricultural practices that could potentially help reduce GHG emissions and/or increase carbon storage in soil and biomass. The survey is also available in French.
 Free to download:
www.ademe.fr/publications

TO ATTEND /

30 Nov. - 11 Dec. 2015 COP 21 CLIMATE CONFERENCE PARIS LE BOURGET

The Climate Change Conference (COP 21), to be held in Paris (France) in December 2015, will host nearly 50,000 international stakeholders and delegates
www.ademe.fr/manifestations