

# 4 GOOD REASONS TO FAVOUR LOCAL INVESTMENT

## 1 Share the benefits of renewables more equally

Renewable energy sources are based on distributed energy streams going through large areas, and thus can be considered as a collective wealth. When project financing comes from a few large investors from outside the project area, profit flows away. Local investment allows a better share of wealth, opening the door to a clear appropriation of the project by local inhabitants.

## 2 Support economical development in rural areas

The involvement of local actors in the destiny of their territories is a key factor for the development of local communities, especially in remote and rural areas. In regions where agriculture or traditional industries are declining, RES projects offer an opportunity to diversify economic activities by a production that cannot be transferred elsewhere.

## 3 Improve local acceptance of RES projects

Some RES projects face local opposition, particularly wind energy which unavoidably modifies the landscape. This can occur either in countries where the novelty of RE plants gives rise to concern and in those countries where their very large scale of development could cause feeling of saturation.

In both cases, associated with a comprehensive and sensitive information campaign, local investment is likely to reduce the risk of a strong opposition by allocating more benefits to those people who actually or potentially endure the drawbacks.

## 4 Play an educational role

As attested by numerous political commitments at both a European and national level, the development of renewable energy sources is a matter of general interest that needs a strong support from a large part of the population. Local investment can play a significant educational role by increasing the number of people directly and indirectly involved in definite projects, and thus the public awareness on renewable energy. By creating social links in the framework of a local project, it can also promote the emergence of new local projects through exchanges about the initial one.

# CONTACTS AND RESSOURCES

## DOCUMENTS PUBLISHED IN THE FRAMEWORK OF EUROPEAN PROJECTS

### PREDAC

European Actions for Renewable Energy  
[www.cler.org/predac](http://www.cler.org/predac)

A european project organised into 11 thematic working groups. This publication is the work of the «local investment» working group ([www.cler.org/predac/wp1](http://www.cler.org/predac/wp1)). Other publications :

- **Collection of European experiences in local investment into RE.** 15 detailed case studies from 5 european countries in three renewable branches : Biomass, wind energy and photovoltaics. (in French and in English)
- **Proceedings of the European conference on local investment in RE** held in Paris the 14<sup>th</sup> of March 2003 (in French)
- **Methodological Guide on planning procedures** and local concerted approach. A complementary and necessary way to improve the social acceptance of wind energy projects.
- **Proceedings of the European Conference on spatial planning procedures** held in Brest the 6<sup>th</sup> of december 2002 (in French and English)

### WELFI

Wind Energy Local Financing  
[www.welfi.info](http://www.welfi.info)

A European project which aims to describe legal and financial framework of local investment in Wind Energy.

- **European conference on local investment in Wind Energy** (28th November, Paris). Proceedings available in January 2004 (CD Rom).
- **European Best Practices Booklet** (CD Rom) available in January 2004.

## PARTNER'S WEBSITES HYPERLINK

### Denmark

Copenhagen Environmental and Energy Office (CEE0) • [www.kmek.dk](http://www.kmek.dk)

### Greece

Idec • [www.idec.gr](http://www.idec.gr)

### Germany

Zentrum für rationelle Energieanwendung und Umwelt GmbH (ZREU) • [www.zreu.de](http://www.zreu.de)  
BundesVerband WindEnergie e.v.(BWE)  
[www.wind-energie.de](http://www.wind-energie.de)

### France

Comité de Liaison Energies Renouvelables (CLER) • [www.cler.org](http://www.cler.org)  
Hespul • [www.hespul.org](http://www.hespul.org)

A project coordinated by CLER ([predac@cler.org](mailto:predac@cler.org)) with the support of

- the European Commission Directorate-General for Energy and Transport  
Further information on DG TREN activities is available at the Internet web site address:  
[http://europa.eu.int/comm/dgs/energy\\_transport/index\\_en.html](http://europa.eu.int/comm/dgs/energy_transport/index_en.html)  
The Internet web site address for the fifth framework programme is :  
<http://www.cordis.lu/fp5/home.html>
- the French Environment and Energy Management Agency • [www.ademe.fr](http://www.ademe.fr)

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# LOCAL INVESTMENT IN RENEWABLE ENERGIES



ENERGIE

ADEME



Agence de l'Environnement  
et de la Maîtrise de l'Énergie

Pre<sup>+</sup>edac  
European Action for  
Renewable Energies

# LOCAL INVESTMENT IN RENEWABLE ENERGY SOURCES : A REALITY !

Although the vast majority of RE projects are established by commercial developers, some of them are financed by «ordinary citizens» pooling together through different schemes. This is particularly frequent in Denmark and Germany – possibly a key reason for the continuous and so successful growth of various RE sources in these countries.

When the financial capability of local partners is proven to be insufficient, local investment is often complemented by joint investment coming from private persons living far from the site and supporting this «citizen approach».

Thus the concept of local investment can apply to both :

- **a pure local investment scheme**, in which the investment is made exclusively by people living in the immediate surroundings of the project's site. Initiatives in the framework of Local Agenda 21 and farmers pooling are good examples of these schemes.
- **a joint citizen-based investment scheme**, in which private persons from all over the country and even from other countries participate in the investment, either directly by taking shares in the project itself, or indirectly through dedicated «ethical funds» proposed by their bank.

Local investors can be at the origin of the project, or they can be encouraged to join it by socially-oriented developers.

In 2002, 85 % of the 2900 MW installed capacity of wind energy providing roughly 15 % of total electricity consumption in Denmark had been established through locally driven initiatives. Of these 2433 MW, 68% were owned by farmers and 32 % by wind turbine co-operatives, concerning almost 2000 turbines.

In Germany, in 2002, not less than 340 000 private persons had invested about 12 billion euros in wind, water, sun, biomass and geothermal projects.

# EXAMPLES

## DENMARK

### Middelgrunden off-shore wind farm



The largest project based on local investment to-date the Middelgrunden Offshore Wind Farm, facing the harbour of Copenhagen. The 40 MW wind farm supplies 4 % of the electricity consumption of the capital. This highlight of the Danish wind adventure came through due to 8552 individuals, companies, local and national politicians and the utility of Copenhagen. The owners are primarily residents of the Greater Copenhagen area. This shows that co-operative investment can contribute to the development of renewable energy at significant scale.

**Example :** Jacobsen family bought 1 share at a price of the 568€ (172 MDKK/40500 shares = 568€)

**Yearly production is 1000 kWh for 1 share**

Selling price of electricity	44.24€
RE certificate*	36.19€
Income/yr	80.43€
Maintenance cost	-9.38€
Net income/yr	71.05€
Rate 71,05/568	12.5%

Simple pay back time	8 years
Calculated lifetime	20 years
5% yearly depreciation	28.49€/yr
Income after depreciation	42.56€/yr
<b>Rate after depreciation</b>	<b>7.5%</b>
<b>42,56 / 568</b>	

## GERMANY

### Bio-power yield fund

The so-called «Bio-Power Yield Fund I» represents the first dedicated biogas-Fund for private investors in Germany. Interested investors are invited to participate in three bio-power-plants with a total rated capacity of 4.55 MW which are designed to produce heat and electricity from biogas converted from animal waste and agricultural and industrial organic residues. The Fund with an overall volume of 5 M€ offers minimum application for shares at 15 000€ as an economic and ecological beneficial investment option with a high expected return on capital to the shareholders.



## GERMANY

### Local investment in solar power at the Munich Trade Fair Center

Since November 2002 the world's largest roof-mounted photovoltaic plant on the roofs of the new Munich Trade Fair Centre is in operation and an additional 1 000 000 kWh of solar energy is fed into the grid of Munich's city utility. On an area of 63 000 m<sup>2</sup> 7 560 solar modules are providing a peak power output of 1.058 MW. The construction costs for the new PV plant are financed through an investor owned concept (solar fund «Phönix SonnenFonds») where interested investors are given the opportunity to profit from the yields of the plant in the form of a limited participation partnership (minimum application for shares: 5 000€ plus a 5 % premium).



## GERMANY

### A PV plant as an action of the local Agenda 21

The first action defined by the local Agenda 21 of the city of Herrenberg (Baden-Württemberg) was in 2001 ; a 60 kWp photovoltaic plant on the flat roof of the local secondary school, with the support of teachers, parents and the administration, the municipality, the local newspaper, six local banks and the catholic and protestant Churches.

The 375 000€ investment is divided in 92 shares involving as many inhabitants (among 30 000 in the whole city). A guaranteed interest rate between 3 and 6 % depending on annual irradiation is returned to the shareholders.

Operation and maintenance are ensured for free by the technical staff of the municipality, thus bringing a strong technical credibility.

The plant has been connected without any extra charge to the grid owned by EnBW, a 100 % subsidiary company of EDF (french national utility), to which the PV power is also sold at the feed-in tariff rate of 0.45€ per kWh.

The installation and monitoring of the plant are subject of educational and training activities carried out by the teachers of the school themselves or by external partners.

Real-time and cumulative data are permanently available on a light panel in the entry hall. A further investment in an additional 20 kWp plant is expected by the end of 2003.

# EXAMPLES

# LESSONS LEARNT FROM

**Previous experience in the few pioneer countries shows that local investment needs four prerequisites if it is to bloom.**

# «THE 4»

## 1 **Support mechanisms based on «Feed-in tariffs»**

Amongst the various types of support mechanisms that can be considered, the so-called «Feed-in tariff» is so far proven to be the most efficient system for ensuring a rapid and constant growth in the installed capacity of renewable energy plants. Based on a fixed rate guaranteed by a long-lasting contract with the utility (usually 15 to 20 years), it offers an attractive economic visibility to the investors.

As local investors are rarely wealthy, especially in rural areas, they could never assume on their own the risks and the uncertainties associated with other support mechanism systems such as tendering procedures or green-certificate-based systems. Independently from their theoretical efficiency and of their actual feasibility, it must be made clear that the choice of these mechanisms means the exclusion of local, small and/or citizens structures from the direct benefits of RES implementation. The business in this case is inescapably to be kept by a highly concentrated handful of large, and influential companies.

Draining the economic flow from the land where the economic benefits were created not only eliminates most of the added value at community level, but such large firms often cause local opposition due to their incisive methods for implementing projects in rural areas, where they may be seen as «invaders».

To develop a real partnership with local investors (although local partners are expected to introduce complexity and take a part of the profit) is regularly becoming a prerequisite for reducing local opposition even for those big firms. But it can make sense only if risks and profits are fairly shared – and only a feed-in tariff system offers that.

## 2 **Developing incentives for local investment**

In addition to a fair economic balance of the investment and risks under control, local investors also need a favourable environment for them to be ready to put their savings in RES-based projects.

This can be achieved by several means:

- Taxes incentives like lower tax rates, tax exemptions, tax credits, ...
- Government subsidised loans, in which the interest rate for long-term

# EXPERIENCE : GOLDEN RULES >>

loans is reduced by national or regional government when used for investing in RES

- **Favouring the geographically closest partners** through investment value taking into account the relative distance from the plant. In its early development in Denmark, investments in wind energy was even restricted to people living in the municipal area inside the country – this regulation was only undone in 2000.

- **Spatial planning** carried out at a community level by local Authorities, generally through a durable consultation process is expected to give local investors easier access to suitable areas.

- **Simplification of administrative procedures** both for obtaining building licences and for grid-connection is of a particular importance for local investors.

## 3 Information and promotion on local investment among local populations

Transparent, objective and readily available information on the actual possibility for local investors to join RES projects is a key point. This information should be aimed at potential investors among the local population or at project developers

coming from outside the area. Several kinds of actors are expected to give relevant information: local Authorities, politicians, farmers organisations, local energy information centers, local banks, state agencies, administration, etc.

## 4 Efficient support to the local initiators

RES projects are complex and risky, so it is unrealistic to leave non-professionals manage such developments alone. As well as the possibility of putting misinformed people in difficulties, the renewable energy sector as a whole would endure discredit in case of bankruptcy. When carried out by non-professional local people, RES projects need some issues to be specifically considered:

- Technical and economical studies must be carried out by qualified consultants, preferably independent from RES manufacturers.

- External assistance may be useful in order to choose the most convenient legal structure

- Shareholders must have a clear understanding of the business plan (simple pay back time, rate after depreciation and taxes,...) and of the guarantees put on materials by manufacturers.