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PEER REVIEW 4 – 8 DECEMBER 2017, HUNGARY HAJDÚ-BIHAR COUNTY

REPORT

1. INTRODUCTION & FOCUS OF THE PEER REVIEW

The Peer review Team included representatives from: Oldham/Greater Manchester, UK; Prahova, Romania; Abruzzo: Italy; Lake Constance, Germany; Valencia Region, Spain; Sofia, Bulgaria.

COALESCCE: Community Owned and Led Energy for Security Climate Change and Employment (Economy)

Hungary has a very strong framework of national programmes for the promotion of renewable energy projects. However, very few of these are community-owned, with the benefits that community ownership brings.

The peer review examined how this existing framework can be used as a policy basis for partnerships with community energy groups, especially beyond the time-frame of the existing national programmes, and aimed to identify potential business models for such partnerships as well as ways in which community groups can be incentivised to get more involved in renewable energy projects, and to recommend practical steps which can be taken to enable these partnerships to be established.

The group received detailed information provided by Lenerg (in the Peer Review Questionnaire) and a number of presenters in Debrecen, the details of which can be found in Section 2 of this report. The group also visited two municipalities and the village of Told, to receive presentations on municipal renewable energy and energy efficiency projects, and a community energy project in the Roma community at Told.

A feedback meeting was held in Debrecen on 7 December 2017.

1.1 Specific questions the Host Region asked the Peer Review Team.

1) How can we raise awareness among local people concerning community energy, and among local governments?

2) How can we access effectively the Ministry for National Economy who is responsible for Territorial and Settlement Development Operational Programme?

3) How can we convince people to cooperate in community energy projects?

4) How can we convince private investors to develop community energy projects in cooperation with local governments?

1.3 Specific outcomes the Host Region expected to achieve from this Peer Review

1) Recommendations on measures to support developments of projects where public and private sector work together.

2) Recommendations on financing of community energy initiatives, till and after 2020.

The Peer Review team would like to thank those who met with them, hosted visits and provided information, especially Valeria who worked tirelessly to make the visit a success.

2. PRESENTATIONS & VISITS

2.1. Day of presentations in Debrecen – Tuesday 5 December

2.2 Community energy project, results, experience and difficulties – Hungarian Environmental Protection Association - László Zalatnay

- Non-profit NGO
- Member of international environmental umbrella organisation
- www.communitypower.eu – a number of EU participating countries
- Multiple benefits – renewables, strong communities, new investment source, promotes energy efficiency & local renewables
- Not just the components of the system which are important – the relationships between them are also important
- A significant proportion of Hungary's food is imported from all over the world – in a typical city 90% of food comes from outside, and the money leaves the city – going to big corporates instead of staying with small producers. This pattern is the same for the whole North East region of Hungary
- This constant loss of money leads to unemployment, migration, poverty, crime
- Also an energy-wasting transportation system for food. Not a question of how we power the transport – question is do we have to use it at all
- How do we solve this problem – "community". But what does it mean?
    - Common Action
    - Common Belief
    - Common Construction
- Three components acting together create loyalty – community interests come before individual interests
- KOSAR – short food supply chain organisation – producers, volunteers, consumers. 5th year of programme. No external support
- Clever transformation of community structures can lead to economic success e.g. Bangladesh telephone company with 'telephone madams'
- KOSAR – website where production is advertised. Volunteers bring in supplies once a week.

- Community funding programme “Golden Egg Society” now started up – created free range farm, dividends paid to investors in eggs
- Recipe for any community project – can also be applied to community energy projects
- Strawbale homes – education and training, construction, operation, demolition. Started at turn of the century, has trebled rate of SBH construction. Facebook campaign to spread the word. Also shows how SBH can meet housing construction regulations. Downloadable house construction plan. Community funding paid for pressure test to find air tightness. SBH has image of fire risk, mouse infestation and built by poor people – no chic – but these myths are being dispelled. Insulation value of special SB insulations blocks half the price of other materials e.g. polystyrene – community funding can be very effective with these lower costs. Original person who set up the initiative is now just a Facebook moderator
- Coordinator needed to translate the three community principles into community energy projects. No shortage of national funding programmes for community sector, no great impact has been made. Sometimes even leaders of community organisations don’t understand that the three conditions are necessary for success. Expect resources and money from grants but not from their own community
- Anticipating the needs of the potential customer is key to any business
- The community comes first – then community funding is easier. In principle, the SBH project lessons could be translated to community energy
- Local evidence exists to support benefits but can always be improved

2.3 Experience of retrofitting of condominiums - DeNovo Home Kft. – Szabolcs Bartok

- Established in 2009 to implement energy saving in condominiums
- Manufacture prefabricated panels and carry out installations, manage applications
- Also owners of condominiums
- Energy saving on over 10,000 flats in the region
- 10 condominiums in Debrecen, others in Budapest and elsewhere
- 40-50 year old buildings, sandwich panel structure. Used to be insulation in between panels but has broken down and pulverised
- 2015 onwards – certificates required to detail current state and proposed state, contained other technical content. No real plan or set approach before this
- Since 2015 only complex refurbishments have been possible
- Multiple buildings on district heat network prevented individual blocks being insulated. Complex refurbishment can solve these problems
- Introduction of energy certificate made it possible to properly measure and plan the retrofits
- Insulation plus redesign for solar gain – passive
- Modernising heating system and solar collectors, renewable energy – active
- Heating was set up in series – has been changed to parallel to enable each flat and room to be regulated individually
- Old ventilations systems very inefficient – 7 times more energy to operate than new
- Preferential interest state loan for retrofit – zero interest now

- Condominium Act – annual meetings of residents, 50%+1 is needed for permission to carry out the work
- Representative for each condominium but the condominium itself is the customer
- Increases value of property and the social benefit of having high quality housing

2.4 Role of banks in RES and EE developments –OTP Bank – Tibor Roman

- Four main target groups
    - ESCOs
    - Commercial banking – companies
    - Household financing
    - Condominium Co-operatives
- ESCOs – bank finances investment company which funds the ESCO. Share of energy savings provides repayment. Not hugely successful in Hungary. Narrow focus on profits and not energy consumption
- Households – better options than ESCO model, in particular Condominium Co-operative financing
- ESCO financing very marginal in banking sector
- Commercial banking
    - large companies used to cheap energy procurement
    - SMEs – heavy demand for energy efficiency programmes due to EU support grants
- Households – refurbishment loans with low interest rates subsidised by the state
- Condominiums – largest segment of community financing. Has grown a lot recently. Growth due to the communities themselves rather than the banking sector. Not only new windows etc but also wiring renewed and solar PV systems installed on the roof. 60-80 flats. But renewables still a small proportion of the whole investment – mainly energy efficiency
- From this year, EU programmes provided a push for these investments
- Development bank collaborates with 8 commercial banks to distribute funds
- Energy efficiency retrofits should allow for renewables at a later date
- Economically more sound approach is low interest loans rather than grants. Target group needs to be more conscious in planning investment. New approach for smaller enterprises which have not been very financially aware, lots to learn
- Interest rates are only 1% or 2%
- Majority of programmes target SMEs, only two programmes related to households – SMEs get 220bn forints. Programmes made SMEs think about energy efficiency which they didn't before. Only energy saving and energy cost – not production. Also covers wiring though to enable local energy generation such as solar PV
- 45% loan, 45% grant, 10% own contribution
- Mainly targeted at central Hungarian region which is more affluent. Other 'convergence' regions are poorer

- SME programme for renewables – temporarily interrupted. Promotes electricity production to the grid by SMEs, mainly solar PV. Programme was interrupted due to too many applications being received
- Wind excluded by heat production e.g. biomass is included
- Successful applicants get contract for their electricity for 23 years – state purchases. Very secure investment – only operational costs over that time
- No grant – just zero interest loan. Obstacle to community financing because community will want a return
- By far the most successful programme – money from other programmes being redirected to this one
- Two programmes addressing households – same for all regions. Zero interest rate loan for households, no grant. Selling point is zero rate of interest
- 10,000Ft will pay for a home energy efficiency renovation. Even if a home has mortgage they can get this money. Household can combine both renewables and energy efficiency. Older houses mainly get energy efficiency but even these houses often think of solar PV or other energy generating equipment. Heat pumps are also included – if not possible, a complete renewal of the heating system can be carried out in order to accommodate. Solar PV can power house and also heat pumps. 1 million Ft for 20 year term – loan. 30 euro monthly instalment. Maximum about 10 million Ft – 130 euros per month, 5 million without a mortgage. Anticipated that in 2018 the programme will be the most popular one in household real estate business. The state expects huge distribution of money on this programme next year. Limit will be the capacity of the construction sector only
- Condominiums – financed as a community. Obsolete houses refurbished in 2-3 months – 60s/70s/80s. Energy cost saving is larger than monthly instalments. Special financial institution/fund set up for flat purchases and renovations. Maximum 7 million Forints
- Financial products make people think about their energy efficiency investments more thoroughly than just grant
- Financial benefit assessment typically isn't even carried out but due to 'neighbour effect', scheme is very popular
- 'Leader' groups formed in particular villages – producing their own electricity for mobile phones, electric cars etc
- Old attitude is changing quickly towards more energy efficient and renewable energy oriented attitude. The shift from grants to loans is driving the way these schemes are changing and being delivered
- SMEs and households will be the main winners in 2018
- Three different Energy performance certificates required for all refurbishments, including GHG performance
- No problems with EU state aid rules – used to be a FIT but these low interest loans have reduced the term to 23 years to avoid double subsidy
- Banks get commission for giving out loans

2.5 'METÁR' system – Hungarian Energy and Public Utility Regulatory Authority – Katalin Varga

- Was a FIT up until the end of next year, now it's a Feed In Premium system (CfD)
- Hungary very close to hitting 2020 targets for renewables, except in transport
- Renewable electricity – mainly solid biomass and wind
- Growing solar PV and 'renewable' municipal solid waste combustion
- Biomass in households is main renewable heat source – air pollution problems come with it though. Difficult to measure quantities though
- 10% share of renewables in district heating – mainly biomass and solar thermal
- EU state aid means that FITs must convert to premium system
- Power plants producing electricity from renewables get support – new, refurbished, extended life, over 50kW, demonstration projects. Under 50kW on net metering scheme
- Premium system – CFD
- Maximum yearly support budget is set by Minister for Energy
- Technology neutral – bid system, evaluation is price only
- Bid bond – penalty for non completion

2.6 LENERG Energy Agency Nonprofit Llc. – Gábor Vámosi, Managing Director of the agency

- Busy year this year with COALESCCE and other INTERREG programmes. New project looking at 10 domestic properties

2.7 The role of Hajdú-Bihar county in energy developments – Hajdú-Bihar County Self-Government – Zsuzsa Mihalik

- County government
- Debrecen is the capital of the county. Rest of the county is very sparsely populated. 51 other settlements
- Many INTERREG projects including cross-border programmes with Romania
- One of the settlements has its own currency, retains wealth within the settlement
- Does a lot of engagement at public events and festivals around climate change, getting opinions of young people to feed into climate strategy
    - Heat of the home insulation and renewables schemes
    - Electric cars
    - Electric car charging stations
    - Energy efficient street lighting
    - Energy efficient upgrade of public buildings
- Working on Sustainable Energy and Climate Action Plan

- Most of the programmes are national programmes delivered locally. Municipalities used to fund some housing retrofit but can't afford to any longer – all national and EU programmes now
- Presenter thought that communities would like the idea of owning their own renewable energy generation

2.8 Territorial and Settlement Operational Programme – Hajdú-Bihar County Self-Government – Melinda Mátrai

- Centralised OP which incorporates territorial objectives of all regions – used to have region-specific programmes
- Central regional programme still different
- Increasing economic growth and boosting employment
- Enterprise friendly and population preserving development
- Supports project development and project management
- Low Carbon Economy a specific focus
- Energy refurbishment of municipal buildings
    - Indicators: co2 reduction, energy efficiency, primary energy, renewable energy
    - 100% grant intervention
- Municipality-led provision of renewable energy supply
    - Supporting small-scale complex projects of regional and municipal importance
    - Public buildings biomass & geothermal
    - Solar PV farms
    - 100% grant intervention

2.9 Visits to Told, Hajdúszoboszló and Nagyhegyes – Wednesday 6 December

The Peer Review group visited the village of Told, where they learned about the activities of a local charitable Foundation, working with the Roma population of the village to try to tackle the extreme poverty and unemployment in the village.

- Told is a village of 360 inhabitants, predominantly Roma. The village has no sewerage, only water and electricity. The latter is often not paid for and connections are illegal and dangerous
- Crime is high and high interest moneylending and prostitution are commonplace
- The charitable Foundation working with the village runs an art school. Education, social building and co-operation between institutions are priority aims
- 600 pupils mix rich and poor, white and Roma. The Foundation provides study groups, homework classes, competence development and skype lessons with Budapest
- Scholarship programmes exist and the Foundation also works with the adults in the community to embed behaviour change

- One successful project is the manufacture of fuel bricks. These bricks are made from recycled paper mixed with sunflower straw, which is donated free of charge by a local Italian farm. Members of the community make the bricks and burn them at home to keep warm in the winter. The village has received a donation which will enable them to mechanise the production of these fuel bricks and increase production, potentially to the point they have a surplus which they can sell to the next village in exchange for other items

In the afternoon, the group visited the two municipalities of Hajdúszoboszló and Nagyhegyes, where they heard about a range of renewable energy projects which have been implemented by both municipalities, along with more in the pipeline. The group was very impressed by the range of projects underway in the municipalities, although they also heard that fuel poverty is increasing and requested for help with fuel are made daily in Nagyhegyes municipality.

3. FEEDBACK

The Peer Review team reflected on findings at the end of each day. The morning of 7 December was spent discussing the findings and recommendations.

The SWOT analysis conducted produced two main themes; Finance and Communication. Findings and recommendations were therefore presented along these themes and good practice examples were also provided.

Each section notes good, positive or interesting practice

3.1 Finance

Finance for renewable energy generally was felt to be excellent by the Peer Review group, resulting in large-scale delivery of projects. Ironically, the availability of zero interest loans and 100% grants was found to be a barrier to community-owned energy, as there is no need for community finance for projects and so few opportunities for community ownership. However, the group felt very positively about the future of renewable and community energy in the region in the future, and found a number of opportunities for development in this area.

Good Practice observed in the Peer Review

Existing grants & loans are very good, with strong take-up and result in large scale delivery of renewable energy projects.

There are many examples of action on renewable energy by the County Government and municipalities, who are accessing 100% grants to deliver projects.

The OTP bank shows a deep understanding of renewable energy, and demonstrates much expertise in financing various types of energy projects. The Peer Review group felt that this is very unusual for a bank and to be commended.

There is potential for existing funding streams to be sustainable into the future – if zero interest loan repayments are recycled into new loan funds.

Weak Areas/Threats observed

As mentioned above, the group felt that the current regime of very strong grants and loans available for renewable energy projects is actually a barrier to the creation of community financed projects – there is no need to raise community finance for projects where investors would be paid even a small return on their investment, due to the availability of zero interest loans from the government. This means that there are few opportunities for community ownership of renewable energy projects.

Small and Medium sized Enterprises and some condominiums do not seem to be taking up available funding. This raises the question as to why not? Is it due to a lack of awareness of the opportunities, or are there other factors preventing take-up of funding?

The issue of Fuel poverty was not mentioned a great deal, although it is undoubtedly a problem, and it was felt that the upgrade of condominiums could potentially cause problems for those tenants who cannot afford the repayments for the energy efficiency improvements in the short term. Could there be a strategic role for communities working together with municipalities and agencies in tackling this issue over the longer term?

Opportunities

There is some potential to refinance projects into community ownership if profitability allows. Projects developed either privately or by the County Government or municipalities could potentially be refinanced into community ownership, if the project business model gives enough of a return. The funds raised could then be recycled into other local government services.

Existing zero interest loans could be recycled post 2020, using the funds paid back to create a new loan fund.

There could be an opportunity in the particular area of the retrofit of condominiums to structure the financial model to create smooth seasonal energy payments for residents. At present, for some months of the year the loan repayments for the energy efficiency improvements exceed the savings on the energy bill, and at other times the energy bill savings exceed the loan repayments. This can make it difficult for residents to plan their finances over the year.

An Energy Services Company model could take over from grants and loans to deliver projects post 2020. Under this principle, the ESCo would make the investment in energy efficiency or renewable energy, and its source of finance would be repaid through the ESCo taking a share of the energy cost savings or income from renewable energy sold. An ESCo model could be wholly or partly community financed, bringing opportunities for community ownership.

There may be an opportunity to use existing finance better to achieve greater penetration in the various different sectors. This opportunity may be simply a matter of raising awareness of funding availability in the target audience.

Recommendations

- Develop a demonstration community ESCo model for deployment post 2020
- Use Horizon 2020 funding to build a delivery model for a community ESCo, including a community group as a partner
- Lenerg to support the County Government in developing a project bid

3.2 Communication

Good Practice observed in the Peer Review

The County Government is effectively using INTERREG funding to deliver sustainability engagement projects, for young people right down to kindergarten. These kinds of projects are relatively low-cost, and once materials and programmes have been created are sustainable over the longer term requiring very little funding.

The Peer Review group felt there is a good spread of projects geographically and also some really great examples of community-led projects & programmes, not necessarily in the area of renewable energy but nonetheless demonstrating a wide understanding of the co-operative approach to delivering community projects.

Weak Areas/Threats

It is not currently clear what the motivations of community groups are. A better understanding is needed of what interests community groups and what motivates them to deliver projects, so that the potential for community energy can be assessed. It may be that existing community groups are not aware of the concept of community energy and opportunities to deliver projects.

There is a skills & capacity gap in Small and Medium Enterprises to deliver against projected future demand (2018 onwards) for a workforce to deliver projects funded by the various national programmes.

It is not clear whether behaviour change programmes are included in condominium retrofit projects. Changing behaviour of consumers is a key aspect of reducing energy consumption and carbon emissions, as well as energy bills.

Opportunities

There is an obvious potential awareness-raising and best practice dissemination role for the County Government, working with the municipalities, including budgeting planning for renewable energy projects post 2020. The role also includes making all of the strategic links between renewable energy, energy efficiency and existing strategies on health, (fuel) poverty, education and other areas where energy issues have implications. The role would also include listening to the municipalities and representing them at a national level, carrying out lobbying on important issues arising.

There is an opportunity to improve knowledge transfer to SMEs and condominium associations, to raise awareness of available funding opportunities and increase levels of take-up of national programmes.

There are potentially training & employment opportunities to build capacity for the low carbon sector to deliver against expected high demand for national programmes in 2018 and onwards.

Recommendations

- Discuss development of a community energy network at the first COALESCCE stakeholder workshop
- Enhance uptake of the condominium loan scheme – a local organisation should deliver an engagement programme (potentially funded by COALESCCE)
- Toolkit needed to enable community groups to access incoming Premium & Net Metering schemes
- Strengthen role of County Government in disseminating information and educational initiatives amongst municipalities
- Mapping exercise of community groups with their interests & requirements

3.3 Transferable Good Practice

Members of the Peer Group shared examples of transferrable good practice and offers to support the development of the Hungarian community energy sector. These included the following:

ESCO models from Pescara

3 projects (one on the Energy service agreements - EPC, ESC- implemented in a school of the municipality of Pescara; one on the public-private partnership on energy efficiency of clear claps in a real estate of the municipality of Montesilvano; one on the public-private partnership on the swimming pool of Atessa) have been highlighted as good practices within the NEW FINANCE project (Interreg MED).

Moreover, in Abruzzo, training sessions on how to run public-private sector partnership businesses are given by ESCOs and academics from the University of Pescara to Mayors and public employees in the framework of an Interreg MED project, NEW FINANCE. A dedicated “training material” has been developed within the project itself and this training sessions will be also a unique opportunity to foster the encounter and cooperation between financial institutions, ESCOs and local authorities.

Covenant of Mayors (COM)

On October 2015, the Region of Abruzzo has endorsed the new COM’s targets for energy and climate (in 2010, it joined the initiative as a coordinator. Also all municipalities – 305 – and provinces – 4 – have joined). In this light:

- It is coordinating with all its municipalities and provinces to update PAES into PAESC according to the climate profile of the concerned territories;

- Fostering the realization and implementation of PAESCs in accordance and in parallel to the Regional Plan of Adaptation to Climate Change (PACC) through partecipatory processes and governance tools;
- ROP ERDF 2014-2020 as a tool to support actions of mitigation and adaptation, with 2 priority instruments : energy-efficiency of public buildings (schools) and energy-efficiency of SMEs.
- Implementation of Public Private Partnership (PPP) as a tool of application of policies and actions to local adaptation to climate change
- Coordination with EU and international working groups
- EU projects and transnational partnerships

UK – Community Energy Fortnight

Community Energy England https://communityenergyengland.org/ is the umbrella organisation for community energy organisations in England (it has sister organisations in Scotland and Wales). With just three staff, it is funded through membership fees, corporate members and through charitable funding to provide support to groups, and representation and lobbying to government and the regulator. It holds events to help groups share best practice, understand regulation and has brought in the District Network Operators (energy transmission and supply companies) to innovate with community energy groups. It also has a Community Energy Hub website where case studies can be uploaded to share.

Every year, Community Energy England holds a "Community Energy Fortnight", where community groups are encouraged to celebrate their projects with events and promotional campaigns, to raise awareness amongst the general public of community energy and the opportunities it presents.

UK - Sector support

In the UK, the community energy sector is supported by a number of organisations such as Energy4All, Mongoose Energy and Sharenergy. These organisations are themselves community energy organisations but provide consultancy support to community energy organisations within the sector in areas such as financial modelling, accountancy, community share issue, sourcing finance, and technical expertise around a number of different renewable energy technologies.

The services provided by these organisations help new starter community energy groups to plug any skills gaps they may have in developing their project, at reasonable commercial rates commensurate with community energy projects, and can relieve community groups of time-consuming burdens such as administration and accountancy.

Lake Konstanz – ESCO schools refurbishment

Maintenance man & concierge seminars

Powerkids – link between art and energy efficiency

These three best practice studies can be found as attachments to this report.