Communal implementation of a wind project at Vép, Hungary

Background to the Vép wind project

In the Create Acceptance research project one of the five demonstration projects to test the ESTEEM tool was a windpark development near Vép, a West-Hungarian village close to the Austrian border. In Hungary only a few MWs of wind capacity existed in 2005, but in that year investor interest suddenly boomed due to the substantially raised feed-in tariff, which in turn caused blocking resistance at lower regulatory levels. Infrastructural and regulatory innovations are needed to absorb more wind capacity in the rather inflexible Hungarian electricity infrastructure. Also, the thus far usually positive residential attitudes could change if the number of turbines massively increases. These issues made it worthwhile to explore the capacities of the ESTEEM tool in testing a wind project in this particular context.

The project company is Szélerő ('Windpower') Vép Kht. According to the plans a 20 turbine, 37.4 MW project is to be realised in three phases, of which the first phase (one turbine) was installed in 2005 and operates with good results. For the realisation of the second and third phase the permit of the Hungarian Energy Office is still missing, because they imposed a 330 MW limit on wind capacities in the spring of 2006 for an unspecified time span, and the quotas have been all allocated to 'early bird' developers in a way claimed to be all right by some, and disputed as non-transparent by other investors. There were applications for more than 1500 MW, thus questions and conflicts of allocating scarce resources arose. The justification of the limit was based on balancing and security of supply problems that uncontrollable weather dependent energy sourced electricity can cause to the electricity system as it stands now.

The management took communal relations seriously, so that they were willing to accommodate to local concerns, involve residents in the process as well as share some of the benefits of the plant with them. The company has a supervisory board, of which the president is the mayor of the village. At the moment neither the municipality, nor the residents are owners, but the plan is that at the completion of the project 20% of ownership will be transferred free to the municipality, and up to 40% will be sold at preferential prices for residents. Landowners will altogether receive 5% share (also those without turbines on their land, to prevent envy). Landowners, who have a turbine in their land, receive rent. The company even now, from the revenues of the single already operating turbine pays the public lighting costs of the village.

There had been several forums held and surveys conducted in the village on the proposed wind plant, and it is mostly supported largely due to dedicated involvement both as regards local participation and ownership plans. The municipality has plans to earmark part of the profit on the 20% municipal share for the social support system of the village (local unemployment is high). The residents are proud of the existing turbine; it is a favoured meeting and excursion point, with guided visits offered by the management. For all these features of intensive public involvement the project labels itself as 'communal implementation'.

Due to not having obtained from the wind licence quota, it is uncertain that this company will be able to erect further turbines in the coming 2-3 years. However, they continue their coordinating, planning and (other) permit acquiring work, and need a structured method for navigation through

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the complex field of interests. The national wind capacity limit is not set for ever, and bringing together the various views can accelerate the quota revision, which, due to lobby forces, technical and regulatory developments, will sooner or later ensue.

The rapidly and significantly increased interest in wind developments has raised and will still raise different concerns and conflicts among stakeholders, including residents, local and regional authorities, traditional generators, distribution network operators and not least also the system operator and the regulator. The Create Acceptance process was expected to equip the Project Manager with knowledge and capacities for navigating among stakeholder interests, help the consolidation process, and in the meantime useful experience could also be gained on the capabilities of the ESTEEM tool to be tested. The company management was very much looking forward to cooperation and being a demonstration project.

Figure 1. Location of Vép in West Hungary

Figure 2. The already operating 0.6 MW turbine at Vép, Hungary

Figure 3. Poster exhibition related to the project and wind energy at the feet of the turbine

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Testing ESTEEM

The Hungarian Environmental Economics Centre (MAKK) has tested a draft version of the ESTEEM tool applying it to support the Vép wind project. ESTEEM consists of six consecutive steps, which MAKK executed together with the project manager, Rudolf Piller during 2007.

The expectations of the project manager (PM) of Szélerő Vép Kht were to explore and structure strategies that they can follow in order to be able to continue the project, to widen their field of contacts and negotiations from the local level, since locally they were already quite well prepared and 'embedded'. The ESTEEM process entered the project line when it had already started, the first phase was implemented, but then further phases were blocked. Thus, it was not an early planning phase, but still a point of time when ESTEEM still had the potential to contribute. Its potential value was actually seen quite substantial if it could give a push to move further from the halted situation.

Step 1: *Past and present of the Vép wind project*

Step 1 is constructed to establish the ESTEEM process. In a questionnaire aided interview, the project manager gave an account of the past from the project idea to the present status of his project in a systematic way, and based on this, the consultant drafted the first 'substep', the Narrative. The second substep, using two table templates examined the project put in its context, and identified what opportunities and barriers emerge from the policy, technologic, socio-economic, cultural and geographical environment. In the third substep the defining moments thus far in the life of the project were taken account of, their causes, consequences and irreversibility. The two major events were the erection of the first turbine and the national wind capacity limit that led to rejection of the permit of further turbines. The second and the third substep were first drafted by the consultant, then the PM reacted, corrected and complemented if it was necessary. In the fourth substep the project manager and consultant listed and briefly assessed the stakeholders of the project, their actual and potential role, interest, power and attitude.

During this step the consultant also got acquainted with the necessary details of the wind project. The step helped to build a common understanding between the consultant and PM. The PM deemed useful to reflect on the position of the project and it was a basis for strategy elaboration.

Step 2: *Vision building*

In this step the PM's and 'core' group stakeholders' visions about the project and its context were constructed. As an input, this formed the basis of comparisons of visions and analysis for the third step.

The present, intermediate (around till 2015) and future (2020-2030) PM's visions, as well as the present and future social network maps were drafted by the consultant from Step 1 material and a phone discussion and then sent to PM for review and amendment. A meeting was then organised with the PM to finalise the visions and maps. As an example, see the future network map below that shows the stakeholders in the future and the relationship of the project with them.

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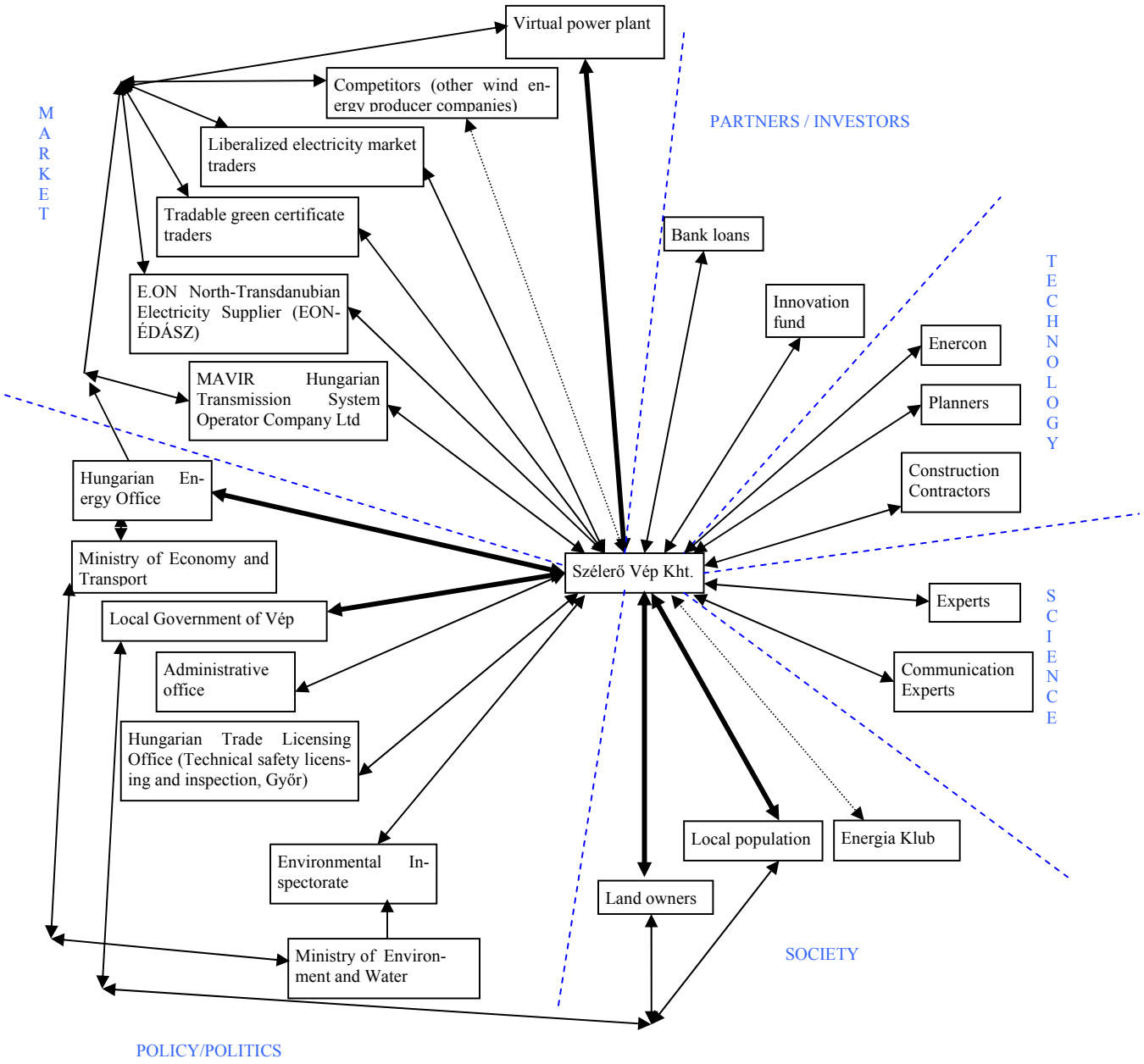
Future Network Map according to the project manager of the Vép wind project



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The core stakeholders were interviewed to elicit their future visions as well as they were requested to reflect upon the future vision and future map of the PM. Based on this, the consultant wrote a short synthesis summary for each stakeholder's vision.

The selection of core stakeholders was done in a discussion with the PM right after Step 1 Actors' table had been completed. The PM had earlier contacted, communicated quite professionally with locals – but only with locals, and it was useful for the PM that the ESTEEM process widened the world of stakeholders (for example, involvement of ministry officials, regulators, system operator, national organisations etc). From local population only the mayor was involved as an interviewee in the core group. No other local population representative was selected into the core group due to several reasons. First of all, previous involvement, interactive communication, exhibitions, forums and surveys discovered and addressed local concerns; no sharp conflicts remained. Also, the residents of Vép were not organized into relevant local NGOs – there were no representative residents. In this respect forums could work, but such forums had been done earlier by PM and a communication team.

Besides the PM, six core stakeholder interviews were conducted. The interviewees were the expert in charge of Renewable Energy Policy at the Ministry of Economy, the head of the Economic Department at Hungarian Energy Office, the expert in charge of climate change strategy at the Ministry of Environment, the head of balancing services at MAVIR (System Operator), a representative of Energia Klub (a pro-renewables NGO) and the Mayor of Vép. Local population views were assessed based on former survey results and informal conversations with residents and the mayor. The core stakeholders reacted to PM's visions and responded questions in the interviews. From these reactions, a synthetic note was drafted for each stakeholder as an input into Step 3.

Step 3: *Collating visions*

In this step MAKK analysed Step 2 material without much involving the project manager. The consultant first compared the PM's visions with those of core stakeholders in order to discover in what they contradict and coincide and thereby to identify and characterize conflicting and synergetic issues. To this end, in the Conflicting Issues table the consultant listed numerous issues that characterised the vision of a given stakeholder, then examined which elements of these contradict or support the vision of the PM. There were only a few (but substantial) conflicting points, and quite many synergetic ones. Then, in the Issues Ranking Table the PM and consultant ranked four conflicting issues according to their importance to the project and to their solvability (see table below).

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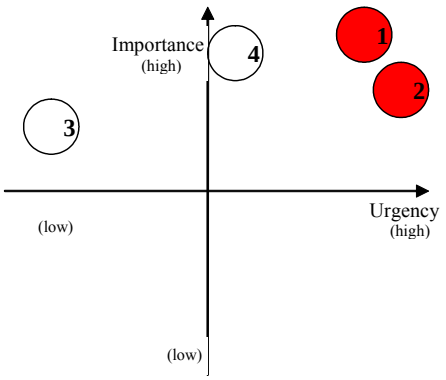
Table 1. The Issues Ranking Table

Issues/features	Description
Issue 1	Energy Office (on system operator MAVIR's advice) limit of 330 MW on wind capacities. Weather dependent character – MAVIR is concerned about system stability and system balancing – the 'technical' source of the 330 MW limit. Unclear role of the state, conventional/renewable producers and consumers regarding sharing of additional/external costs to the network and system operation.
Issue 2	What lies behind the 330 MW limit – Political uncertainty/lack of strategic decisions, Uncertainties concerning the energy technology transition, lack of renewable strategy and future energy vision.
Issue 3	Character of the landscape in the case of many turbines – 40-45% of local residents wouldn't like to see more than 5 turbines (but under 5 almost everyone supports it). This ratio has decreased between the two surveys.
Issue 4	Further investment financing will be problematic, if permitting is hindered.

Issues/features	Urgency	Importance	Rank	Solvability
Issue 1	high	high	1	Low chance (for within 2years)
Issue 2	high	high	2	Low chance
Issue 3	low	medium	4	High chance
Issue 4	medium	high	3	Moderate chance

The results of issues ranking are visualised in the Strategic Issues Graph below (the numbers indicate the serial number of the given issue in the above table).

Strategic issues graph



Step 4: *Identifying solutions*

For each conflicting issue identified in Step 3, PM and MAKK searched, identified and discussed several possible solution options to overcome the controversies. The solution possibilities were divided into three categories: 1. adjustment of the design or operational mode of the wind turbines, 2. filling knowledge gaps through information provision and/or new research, 3. offering (or requesting) financial incentives. Eventually three of the four ranked conflicting issues were dealt with. The fourth issue (securing finance for advancing with the wind project) was dropped as it proved to be trivially solvable using bank loans and support funds once the major conflicting issue (having no permit from the Energy Office) is solved (that is its solvability is fully conditional on another major issue).

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Step 5: *Stakeholder Workshop*

A stakeholders' workshop was held on November 16, 2007 to start discussions between stakeholders on their differing views, the barriers standing in the way of the Vép wind project and further wind developments so as to find compromising solutions for the blocked situation. The discussion was channelled into the themes of the three major conflicting issues selected in Step 3 and 4, but the solution options identified in Step 4 were only offered by the consultant for negotiation at a final point if stakeholders themselves did not mention those.

The 17 participants represented various segments of society – other wind developers, renewable industry associations, ministries, local government, local citizens, energy regulator authority, system operator, Meteorological Office and NGOs. They first in small groups formulated, then presented their solution proposals regarding the three most burning issues identified for the workshop: fulfilling what conditions, what project design and operational changes could facilitate the extension of the 330 MW limit, what energy policy forces and uncertainties lie behind the seemingly only technical causes behind the limitation of wind, and envisaged social acceptance issues in case the project, and thus sudden growth of the number of turbines would become possible. The proposals were then discussed and voted on; most proposals were agreed upon by the majority of the participants. A marked proposal was that wind turbines should be operated in a more flexible way, for example to allow down adjusting intervention of the system operator in low demand night hours or another one that wind operators combine forces with other plants (e.g. local biomass) and together appear as a controllable interface to the system operator. A lively debate emerged as to what sacrifices should be made and costs be born by wind operators and what the electricity system operator. The Vép project manager seemed to accept or seriously consider more adjustments (and consequently costs), and was more ready to compromise than other wind developers, for whom most of the proposals needed further 'digestion'. The PM voiced that he had learnt some proposals that he thought were valuable and he would further investigate them. By the end of the workshop conflicts were made explicit and numerous solution proposals were discussed – the first steps of moving out from a deadlock situation have been made.

Step 6: *Planning for action*

In the last step the consultant and PM synthesised and turned into action plans what they had learnt throughout the ESTEEM process - especially in Step 4 and the Workshop - about the adaptation possibilities of the wind project and/or influencing its context. The goal of the action plans was to help the PM be able to move the project out of the current deadlock situation 1. by adjusting its features and operation mode whereby making it more acceptable for stakeholders 2. via collaboration with allies to achieve favourable changes in attitudes and rules/regulations of opposing stakeholders.

The detailed actions to be executed were grouped into 'three plus one' categories:

- Short term action plan, including actions that can be executed by the PM immediately and without the need for much cooperative efforts, for example how to increase local acceptance of more than 5 turbines with exploring the concerns of opposing residents and consider turbine relocation outside a protecting zone, if necessary.
- Collaboration plan, including actions that require extensive cooperation with other parties for example cooperation with other windpark operators in the wind energy association to negotiate with the regulator Energy Office and the system operator MAVIR on the terms of acceptance of more wind energy into the electricity system. These include both technical and cost sharing/incentive conditions.
- Long term action plan, addressing issues of external developments that the PM has little power to influence, but which are still crucial for the project; which therefore need monitor-

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ing and capacity building so that 1. if still an opportunity emerges the PM should be prepared to seize the opportunity 2. to be able to optimally adapt to changes outside the influencing power of the project. Such issues to monitor and prepare for include the evolution of energy strategy, with special attention to the role of renewable energy strategy and the support system in it. Monitoring activities include participating in special conferences, following professional websites and radio programmes, subscribing to renewable energy newsletters.

- Communication plan, an important interface for the project with target stakeholders and the general public, provides the appropriate channels to address a given target group, from specific local channels to regional and national media.

It is important to note that although some of the short term action plans can be done by the PM unilaterally and immediately, it should be done parallelly with - or in cases of limited resources - even after the actions of the collaboration plan, since activities in the latter – in order to overcome blocking impediments - are more crucial for the advance of the Vép wind project.

Overall experience gained from testing ESTEEM

Important lessons learnt from testing ESTEEM are that it is doable with non-extensive efforts that are also tolerable to the project manager, it helps to gain new knowledge of the project and context both for the project manager and other stakeholders, it helps to explore adjustment and negotiation options that the project manager appreciates and will take further and that the project manager hopes may lead to higher acceptance and ultimately contribute to the completion of the project.

The project manager was very positive, he felt ESTEEM provided added value to his efforts in achieving the continuation of the project. However, by the nature of the mostly policy and regulatory impediments, and thereby the necessity of collaborative actions of various allied forces, even in the case of success, it will be a result of efforts initiated both within and outside ESTEEM, therefore its contribution probably is not separable and measurable. Applying ESTEEM does not guarantee quick success, only improves the chances and may shorten the time for achieving the enhancement of admissible wind capacities and obtaining permit from the Hungarian Energy Office for the second and third phase of the Vép wind project.

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