



The Green Valleys - building sustainable communities across Wales

Our mission is to create carbon neutral, financially secure, and sustainable communities. Our principle means of achieving this is to help communities realise the benefits of Feed-in Tariffs through micro-hydro generation.

Background - The project started with a handful of committed individuals developing their own micro-hydro systems and has now developed into a community owned social enterprise that develops, installs and finances systems for long term community benefit. The key to The Green Valleys success has been to work with community groups in a flexible way, empowering local action to help them realise their goal of a long term revenue stream for community benefit whilst also meeting Government targets for renewable energy. TGV is a social enterprise. It is constituted as Community Interest Company committed to developing community ownership of renewable energy generation. TGV is owned by its members (it doesn't have shareholders) and these members include individuals and a number of local groups.

NESTA prize winners - In January 2010, The Green Valleys (TGV) were joint winner of NESTA's Big Green Challenge securing a prize of £300,000. Unlike the other Big Green Challenge finalists who build capabilities within one community, TGV was conceived to be an "enabling organisation" - providing support to a wide range of communities. We are using the NESTA prize money to build a sustainable business building community owned micro-hydro schemes in and around the Brecon Beacons National Park but see the opportunity to roll out this model across upland Wales.

TGV's experience of delivering micro-hydro schemes -Developing micro-hydro schemes requires a multi-disciplinary team that is expert in hydrological, mechanical, electrical, and civil engineering as well as an understanding of ecology, habitats, and bio-diversity. For community schemes you need to add experience of community engagement, business planning and the legal frameworks to constitute local groups. TGV has assembled a team and has experience of all stages of the process within its current area of operation in and around the Brecon Beacons National Park.

Significant barriers - For landowners and community groups wishing to exploit the many hundreds of small hydro assets in Wales there are some significant barriers: affordable and accurate feasibility studies, expert guidance through the planning process, affordable system design and installation, finance. TGV's mission is to overcome these barriers and make community owned hydro schemes a practical reality.

Market failure and the role of social enterprise - now that Feed-in Tariffs have replaced capital grants as the principle means of funding renewable energy schemes can we expect the private sector meet the growing demand? There are two reasons why the answer is "no". Firstly, micro-hydro installers in Wales can be characterised as being either large companies only interested in 100+kW installations, or a small number of one-man bands unable to offer an integrated service of design, planning, construction and finance that community schemes require. Secondly, the private firms, unsurprisingly, do not make community ownership and environmental enhancement their principle objective. Many firms offer "free electricity" to landowners with the developer keeping all of the generating and export tariffs.

Only a social enterprise such as The Green Valleys, a not-for-profit organisation with a commitment to maximising community ownership, can ensure that the financial benefit of Feed-in Tariffs is used to build financially sustainable communities and not distributed to shareholders.

From The Green Valley's own experience and from the support and encouragement of other organisations, landowners and communities there is a clear need for the service which TGV has developed across all upland areas of Wales. If successful we would contribute significantly to meeting renewable energy generation targets, create jobs, and provide a 20 year income stream to communities in upland regions, and help to develop the manufacturing and export potential of a growth industry.

What does TGV need to do to be able to operate across Wales?

Staff resources - we currently have just 3 FTE (1 FTE seconded short-term by the National Park) to oversee all processes and operations. In the long-term the TGV model is self-sustaining but up to another 3FTE would be needed to support an expansion across Wales over the next 2 years.

Partner organisations - TGV plans to work with partner organisations in, for example, North Wales to deliver our Wales wide vision. TGV has developed an outline partnership with Sustainable Gwynedd Gwnaladwy. SGG would provide the local landowner and community liaison, the construction management and maintenance but use TGV procedures, designs, legal structures, and financing. These partnerships will need managerial and admin support as well as the development of training courses.

Supportive landowners - a community group's involvement in a micro-hydro installation requires landowners that are willing to support community buy-in. We will need to promote to this model to willing private landlords and to develop our existing understanding with Dwr Cymru and the Forestry Commission for the development of community owned schemes.

Investment capital - in addition to extending the existing £500k loan facility with Finance Wales we will need raise additional investment capital to develop the schemes. This can be a blend of investment capital from individuals, landowners, some organisations for a fixed return or a profit share. But we are also provide an opportunity for charities and grant giving organisations (and corporate bodies wanting to meet CSR obligations) to invest in both community renewal and renewable energy.

Supply chain - there is not a well established and scalable engineering industry supporting the micro-hydro industry in Wales. Development capital, grants, or other industry support may be needed to ensure that we can build Wales' capabilities in a vital green growth industry.