Introduction

The community centre is a new building which is part of a larger effort to attract people to Ivybridge town centre. The construction of the community centre, which includes a 12 kW solar photovoltaic array, has been financed by a partnership between Ivybridge Town Council, South Hams District Council, Devon County Council, the South West Regional Development Agency, and European Regional Development Fund. The Town Council undertook the majority of the project development work and wanted the community centre to provide a positive example of renewable energy for Ivybridge, which would inspire others to take action on climate change mitigation.

Project development

- Lesley Hughes (Ivybridge Town Clerk) was the main driver behind the project. She was concerned about climate change and energy issues, and saw that the new community centre offered a great opportunity to install a renewable energy system.
- It was very important to the Town Council that the community centre became a high profile statement of their commitment to sustainability.
- The installation of renewable electricity technology was part of a larger project that involved not only the construction of a new community site, but a broad economic regeneration plan for Ivybridge. Lesley Hughes had been considering renewables for some time, but was focusing more on a micro-hydro scheme, which may still be completed in the future. After attending the RE4D launch event at Kitley House, she decided to take advantage of the free mentor support and capital grants that RE4D offered.
- An initial options analysis identified solar PV as the most appropriate option for the community centre, and the system was installed in December 2007.

How the system works

The roof of the community centre is flat so the panels were arranged on pitched mountings in three rows of 22, facing South. The 11.88kW array was installed in December 2007, before the building was equipped to take on the power load, so the panels were commissioned later in February 2008.

Now the installation is up and running so the electricity generated by the photovoltaic cells is fed back into the mains through the three phase supply. Much of the electricity is used on site and a large display unit in the café area shows how much electricity has been generated and carbon dioxide saved.

Costs and benefits

- **The total cost of the system was £58,084; Ivybridge Town Council received a 50% grant (£29,042) from the Low Carbon Building Programme – Phase 2, and 30% (£17,425) was awarded by RE4D.**

- **Beco Solar estimates the array will generate 10,692 kWh pa, save 5.5 tonnes of carbon dioxide per year, and reduce the electricity bill by £900 pa.**

Technical details

PV panels	**66 x Sharp NU – 180e solar modules**
Mounting system	**3 x Sol 50 roof mounting systems**
Inverters & Control unit	**6 x Sunny Boy SB1700 / 1 x Sunny Boy control system monitor**
Installer	**Beco Solar**

Wider benefits

In addition to the financial and CO2 savings, the value of the public relations statement made by incorporating renewables into the community centre is indispensable to the Town Council.

There are many community and environmental initiatives going on within Ivybridge, such as the drive to become a Transition Town and achieving Fair Trade Town status, the new community centre will play a large part in facilitating these activities.

Lesley Hughes, Ivybridge Town Clerk, said:
"As representatives of the community, the Town Council needs to take a lead on Climate Change and energy issues'. 'Of all the organisations we had to deal with, RE4D was the most straightforward, easy, helpful and best to deal with'. 'RE4D is very important, I hope it continues'. 'With these things [framework supply bureaucracy], there seems to be a lot of hoops to jump through."

Further information

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Image gallery

Exterior shot