Appendix A to City Leap Power Purchase Agreement Decision Pathway report

Power Purchase Agreement

Bristol City Leap (BCL) is proposing to invest in and develop new renewable energy generation systems. This includes Large Scale Renewables (wind turbines and solar farms), which would be developed on the council-owned land, and rooftop systems (solar panels) supplying directly in to the building they are mounted on.

BCL propose to recover their investment by selling the power generated by these systems to Bristol City Council. In order to recover the full development and operating costs involved, this would need to be a long-term contracting arrangement (20+ years), covering the expected operational lifetime of each system. This contract would take the form of a Power Purchase Agreement (PPA), under which the council would agree to buy the power generated at an agreed rate (so this would be an electricity supply contract, but over a much longer term then usual). The proposal is that the rate charged should be fixed[1], based on the recovery of the original investment and the expected lifetime operating costs of each system. This would give the council certainty in future energy prices, and BCL assurance of a return on their investment.

For the rooftop systems, the majority of the power generated would be used within the building the generation system is mounted on. As a 'behind-the-meter' supply, this would avoid significant charges associated with grid supplies, giving significant reductions in electricity costs. In the case of a school or housing blocks, the Supply team would purchase electricity from BCL, recharge the amount used within the building to the school or to the council, and either 'sleeve'[2] the surplus to other council sites, or export this as a sale to the grid. BCL are currently developing proposals for around 4MW of rooftop generation (just over twice the capacity of the council's current solar farm).

The Large Scale Renewable (LSR) systems would be constructed on the council land, and would be connected to the grid. BCL would sell the power generated by these systems to the council under a PPA, to be 'sleeved' (virtually supplied) to council sites. BCL is developing proposals for up to 25 MW of new LSR generation (five times the capacity of the council's current wind turbines), going live from early 2025.

Leasing arrangements

The proposed Large Scale Renewables outlined above would be developed on the council-owned land. As such, the council would need to agree a lease with BCL for each site. The Decision Pathway paper seeks authority to begin negotiations on long-term lease agreements with BCL to make use of the sites identified as having potential for wind or solar energy generation.

[1] Adjusted for inflation

[2] Sleeving is a contractual mechanism that allows power produced by renewable energy generation systems to be supplied virtually to nominated sites, as if they were connected to the renewable energy generation system.