#### BOROUGH OF KETTERING

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Report Originator	Head of Development Services	Fwd Plan Ref	No:	
Wards Affected	All	21 <sup>st</sup> July 2016	3	
Title	RENEWABLE ENERGY – SOLAR PANELS ON ROOFS OF BUILDINGS			

## 1. PURPOSE OF REPORT

To consider the potential for introducing new planning policy to increase roofmounted solar energy provision on commercial buildings, as opposed to ground mounted solar farms in the open countryside.

# 2. **INFORMATION**

- 2.1 Members may recall that at the meeting of the Rural Forum on 17<sup>th</sup> September 2015, the Forum discussed the amount of land in the Borough that was consented for solar photovoltaic (PV) farms. At the meeting, Members spoke of concern that emerging planning policy did not set a maximum amount of solar panels for Kettering Borough, and at the cumulative impact of implemented sites on the character of the countryside. Members favoured that our rural countryside be used for food production, rather than it be taken up by fields of solar panels. It was noted that as a nation, the UK was some way short of European targets for renewable energy production, and that this was influencing decisions at planning appeal.
- 2.2 The Forum agreed to make representation at a meeting of the Executive Committee to articulate its concerns regarding the inability of the Council to divert solar energy capacity into roof mounted provision and instead had to consider an increasing number of large solar farms as a consequence. The Forum also asked if the Council would examine the possibility of requiring new warehouse/large building development to install solar panels on roofs; and lend support to a lobby to change Government policy on this matter.
- 2.3 The Council's Executive Committee considered Rural Forum's request at its meeting on 14<sup>th</sup> October 2015 and agreed that the issue be referred to the Council's Planning Policy Committee for further consideration.
- 2.4 On 15<sup>th</sup> March 2016, the Council's Planning Policy Committee received a report from officers to consider a response to the Rural Forum request. A summary of the substance of the report is provided below.
- 2.5 Following research, the following main conclusions were made:
  - 1. There is enormous vacant functionless roofspace on warehouses, factories and a quarter of a million hectares of it faces south (The Guardian 18.07.14):

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- 2. Companies can save money instead of buying all its energy needs by solarising roofspace; and
- 3. Commercial roofs are where the Department of Energy and Climate Change (DECC) says it wishes to see much of the solar energy installations in the future.
- 2.6 It was reported in the media in 2014 that half a million homes were solarised in Britain, but only 400 commercial-scale solar PV systems had been installed. There are approximately 1.8 million commercial properties in the UK. Commercial installations therefore represent a tiny fraction of all UK solar, whereas on the continent almost a third of all solar is on commercial roofs. The total amount of solar PV installed in the UK exceeded 4.6GW, in comparison to in excess of 30GW in Germany.
- 2.7 There is undoubtedly significant untapped potential to be fulfilled from using commercial rooftops for solar generation. The feasibility of providing PV panels on roofs is not a constraint to development, the panels are sufficiently light that snow bearing requirements far exceed that necessary to support PV panels. In addition, the visual impact of panels on the character of the environment are also limited, given they sit relatively tight to the roofs of buildings. The roof-mounted sector of the renewables industry see roof-mounted PV systems on commercial buildings as the way forward. Once the panels are bought and erected, then free electricity can be provided at limited maintenance costs.
- 2.8 The Department of Energy and Climate Change (DECC) published the *UK Solar PV Strategy Part 2: Delivering a Brighter Future* for consultation in April 2014, to 'inter alia' stimulate the commercial and industrial scale building-mounted solar market to improve its performance. The Strategy highlighted some of the barriers to the take up of solar PV by business. These included the ability to access capital; the transaction costs (management time); prioritisation of other uses; suitability of the building stock; split incentives primarily in relation to landlord/tenant issues.
- 2.9 Ownership complications would appear to be one of the biggest deterrents to roof-mounted systems in the UK. When comparing to Germany, a higher proportion of commercial and industrial buildings are owner-occupied, thereby simplifying PV deployment and avoiding the contractual complications between landlord and tenant often evident in the UK. In addition, in Germany the contractual arrangements are often simpler because the array can be dismantled and moved elsewhere, should the business move to new premises.
- 2.10 The landlord/ tenant relationships are further complicated by the commerciality of potential installations in the UK. For example, where landlords incur the costs of the deployment and take the Feed-in Tariff (FiT) payments but tenants benefit from reduced energy bills
- 2.11 Twenty-eight responses to the consultation were received in total. As a result of the responses, the Government decided to introduce transferability for building-mounted solar PV installations. This however, requires both primary and

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secondary legislation, which will take four years from its inception in 2015. This commitment was made under the coalition Government, it is unclear as to whether the commitment will be as strong under the new Government.

- 2.12 The technology for roof mounted solar is not an issue preventing its wider use. An aspect that is however is capacity and connection to the network, and/or battery storage capacity technology. There is currently a small amount of capacity on the network, major reinforcement would be required for any significant development. Also these renewable energy systems require stability in energy production and energy use, at times when solar levels are low, tapping into a reserve of available power is essential. Energy storage would appear to come in two forms, one being through battery cells, however the issue here is capital cost and life expectancy, this being approximately 5 years. The other technology is flywheel, which has a lifespan of in excess of 10 years.
- 2.13 There would appear to be no Government guidance that enables the introduction of policy that imposes building-mounted solar PV on new large-scale commercial buildings. As such, the only real means for securing this technology in new development is through encouragement. The Council therefore agreed to explore a form of words for inclusion in the Site Specific Part 2 Local Plan to encourage roof mounted solar PV on commercial buildings.
- 2.14 Progress in this area is more likely if the Government can be more proactive in its legislative framework, and/or the offer of incentives. This would be of particular relevance in helping to resolve complications brought about by the landlord/tenant relationship.
- 2.15 Finally, the Rural Forum asked that roof-mounted solar provision be provided as an alternative to ground mounted solar farms. The conclusion was that an increase in roof-mounted solar facilities may add to competition, and may drive technology development to resolve concerns over this form of provision, but it is not possible to require in policy that roof-mounted solar PV replace the ability to develop ground-mounted solar farms.

## 3. RECOMMENDATION

That Members note the findings of this report and support lobbying to overcome barriers to roof-mounted installations, and encourage its increased use in the future.

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