



PROPOSED GLASSHOUSE SCHEME AT FIVE FORDS, WREXHAM (P/2020/0363)

ECONOMIC BENEFITS – AN ANALYSIS OF FIVE FORDS AND THE ‘WREXHAM MODEL’ FOR FUTURE SUSTAINABLE, LOW CARBON FOOD PRODUCTION

KEY POINTS:

- **The Five Fords low carbon glasshouse scheme will provide 150 direct jobs to Wrexham.**
- **150 ‘clean and green’ jobs will deliver £4,079,000 per annum in salaries to the local economy, or £81,580,000 over the 20 year duration of the project.**
- **The Wrexham and wider North Wales economy has lost 1,906 jobs in the last 8 weeks.**
- **The construction phase will inject circa £4,000,000 into the local economy.**
- **Transition training for those losing their jobs in the local economy is in place.**

Introduction

1. In 2019 the United Kingdom imported fresh fruit to the value of £3.9Bn, of which 31% was imported from Spain and 26% from the Netherlands¹. This compares to home production valued at £875m in the same year, an increase of 9.7% from 2018 (footnote 1). The need to increase domestic production has been brought into sharp focus, given the on-going turbulence to food supply chains stemming from the COVID pandemic and climate change. There are increasing calls from stakeholders across the agri-food and political domains to actively re-shore production, to increase resilience to UK food security and cut associated carbon emissions connected to food miles.

2. During the six months that Low Carbon Farming (LCF) has been developing and consulting on their proposals for a low carbon glasshouse at Five Fords, the economic slump caused by COVID has, and continues to, result in significant job losses for Wrexham and the North Wales economy. Aside from well-publicised redundancies at Airbus, 1435 job losses² and Tyson Meats, a further 71 redundancies³; conversations LCF have had with the regional representative of Unite the Union indicates that Wrexham alone is expecting a further 300-400 redundancies from local businesses.

3. **Delivering low carbon sustainable food to Wrexham – the economic benefits.**

a. **Employment.**

(1) Demand for home-grown produce is increasing and the Five Fords project aims to meet this demand. When fully operational the Five Fords glasshouse will deliver 150 jobs to Wrexham, as shown in Annex A. The following should be noted:

- The Grower Team includes skilled horticulturists (BASIS and FACT trained⁴) who are responsible for the growing of the crop. This team also includes an IPM (Integrated Pest

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901689/hort-report-17jul20.pdf

² <https://www.bbc.co.uk/news/uk-wales-53264170>

³ <https://www.bbc.co.uk/news/uk-wales-53998329>

⁴ <https://www.basis-reg.co.uk/>

Management) team, trained in the application of bio and synthetic chemicals, through the LANTRA (Wales) training scheme.

- The harvest/husbandry teams and packhouse teams (shown as 12no. pax / 12no. operators) are those undertaking crop husbandry (planting, de-leafing, twisting etc) and picking; those in the packhouse, operate and maintain the packing lines. This salary is calculated as follows:
 - A 46-week working year (6 weeks holiday: 22 days + 8 Bank Holidays).
 - 46 weeks x 45 hour working week x £9.30 (hourly rate) = £19,251. The delta of £3,749 is closed from overtime and picking above the set rate during harvest.
- The hourly rate for the harvest and packhouse teams is deliberately set at £9.30 – the ‘Real Living Wage’ and voluntary under law⁵

(2) The annual salary total, based in the illustrative organisational chart at Annex A, is **£4,079,000 per annum or £81,580,000 over the 20 year duration of the project**. These figures are directly injected into the local economy.

(3) In benchmarking these salaries, LCF note that the entry-level wage for a member of the Prison Service is £23,539⁶ in the local area.

(4) All jobs and associated salaries within the Five Fords are gender neutral. LCF note that the gender pay gap on a ‘medium hourly basis (excluding overtime)’ in Wales was 14.5% having risen by 0.8%⁷.

b. Training and Career Development.

(1) Throughout the Five Fords consultation period, LCF have been in regular contact with the 3 land based higher education institutions in the area: Coleg Cambria, Reaseheath College and Wrexham Glyndwr University. All three are very supportive of the project. They look forward to working with LCF and future horticultural growers to broaden their educational/course offering to include more horticultural, agronomy and agri-tech courses. All three see horticulture, agronomy and agri-tech as a growth areas in the terms education provision and attracting additional funding. LCF have worked hard with Horticultural Wales⁸ (based at Wrexham Glyndwr University and funded by Welsh Government) to understand and realise this potential; they are keen to partner this expansion of higher education.

(2) LCF has worked closely with LANTRA (Wales) throughout the consultation and planning stages, to provide specialist growing and horticulture training to the Five Fords team. Following last week’s announcement of redundancies at Tyson Meats, LCF arranged for a meeting between LANTRA and Unite the Union, the latter representing those scheduled to lose their jobs. LANTRA have offered resources to re-train current Tyson employees in the horticultural skills required to work in a low carbon, hi-tech glasshouse; realising the synergies and benefits of retaining a skilled work force in the agri-food space. This training per person is quoted by LANTRA at £300 per person. **This would result in training and a transition package for the Tyson workforce, alone, at £21,300.**

⁵ https://www.livingwage.org.uk/what-real-living-wage?gclid=CjwKCAjwNf6BRawEiwAkt6UQqM7uu166zHQOzuKzaMYycruFoHh8tnutyDzQbL3iRMxj0jCbb4BQBoCFQoQAvD_BwE

⁶ <https://prisonandprobationjobs.gov.uk/prison-officer/rewards-and-benefits/>

⁷ <https://gov.wales/annual-survey-hours-and-earnings-2019>

⁸ <https://horticulturewales.co.uk/about-us/>

c. **Accommodation.**

(1) LCF work closely with the leading Dutch glasshouse designers and builders, who are recognised as the world leaders in the market. On commencement of construction, LCF estimate that there will be a requirement for accommodation for an average 60 contractors for the duration of 2021.

(2) On similar projects in East Anglia, LCF have a policy of using local hotels and B&Bs first as opposed to national chain hotels. As local members of NFU (Cymru), LCF have liaised with local members who can provide accommodation, 20 local hotels and B&Bs have been identified and contacted. All are very supportive especially in the context of the COVID median financial loss to individual hospitality businesses being between £5,000 and £10,000⁹ in North Wales.

(3) By region, North Wales' daily hotel rates were £55.02 per person per night¹⁰.

(4) The **provision of accommodation for 60 contractors for 365 days would deliver £1,204,938** to local hoteliers and B&B owners. When adding lunch, dinner and other activities at circa £15 per person per day, this delivers **an additional £328,500 into the local pub restaurant and Wrexham leisure economy.**

(5) This figure excludes visitors to the site during the construction phase.

d. **Local Sub Contracts and Building Suppliers.**

(1) **Local Contractors.** Working on numbers from other LCF projects, it is anticipated that an additional average 30 contractors throughout 2021 would be employed on site at a daily rate of £150 per person per day. Local contractors are well placed to undertake non glasshouse specific electrical and civil engineering scope including the packhouse and energy centre buildings, tank plinths, roads and pipe laying. **This would deliver an additional £1,642,500 in wages to local contractors**

(2) **Building Supplies.** The following major supplies of aggregate sand and concrete will be ordered from local suppliers:

- 32,400 tonnes of Type 1 (0-40mm) aggregate @ £20/tonne - £680,000.
- 3,682 tonnes of sand @ £15/tonne - £55,230.
- 2,435m³ of concrete @ £100/tonne - £243,500

(3) **A total of £978,730 will be invested into the local building supply economy.**

e. **Upgrades to the local gas and electricity networks.** LCF is working closely with local electricity and gas networks to ensure that investment delivers additional resilience to cater for the Five Fords low carbon glasshouse. **This investment is estimated for both networks at £1,300,000.**

f. **Welsh Water – procurement of waste heat.** Welsh Water is a strategic partner with LCF in which the former provides low-grade heat from final effluent. LCF purchase this heat on an

⁹ <https://gov.wales/sites/default/files/statistics-and-research/2020-05/tourism-barometer-coronavirus-covid-19-impact-survey-wave-3-2020.pdf>

¹⁰ <https://gov.wales/sites/default/files/statistics-and-research/2019-11/wales-accommodation-occupancy-survey-2018.pdf>

annual rate. This provision is for 20 years and further supports local jobs at the Five Fords Welsh Water facility.

g. **Operational Costs: Electricity (SP Energy Networks), Gas (Wales and West Utilities), Water (Hafren Dyfrdwy) and Foul Water (Welsh Water).** LCF is working closely with utility providers for specialist services in energy and waste provision. Each utility will require contracted services, further supporting local jobs and the North Wales economy.

h. **Agri-Supply Chain.**

(1) **Fertilisers and Bio/Synthetic Agri-Chemicals and Growing Systems.** The components for growing high quality produce will all be sourced, where possibly from local suppliers. These include fertilisers, pollinators, bio and synthetic pesticides and planting growing supplies. This equates to approximately £15,000 per hectare per year or local an **annual procurement to the value of £225,000.** This figure excludes purchase of plants and growing medium.

(2) **Agri-Engineers and Suppliers.** Local agricultural engineers and suppliers will benefit from the development. The glasshouse will need to procure 5 x forklifts, a tele-handler, 2 x tractors and 8 tonne trailers. **The combined total of this procurement is circa £250,000.** This figure excludes servicing and maintenance contracts over 20 years.

i. **Specialist Supply Chain and Services.**

(1) **Heating and Lighting.** Five Fords glasshouse will be ground breaking in its use of low carbon heat and LED lighting. The servicing and specialists maintenance to support this is niche and highly skilled. It is anticipated that 24 days a year would be allocated for specialist servicing at a daily rate of £750 per day **delivering £18,000 to local heating and lighting companies per year.** This figure excludes the purchase of equipment.

(2) **Specialist Services (agronomy, water management, Health and Safety).** The technical nature of intensive horticulture requires special consultants and advisors to support the growing of high quality, low carbon fresh produce. **It is estimated that these services would be circa £30,000 per year.**

(3) **Heat system operation and maintenance – It is estimated that this service would be circa £500,000 per year**

4. **Conclusion.** This report outlines the tangible financial and economic benefits of the Five Fords low carbon glasshouse. These benefits are set in the context of mass redundancies in the local economy and a political and societal demand for a 'clean and green' post COVID recovery and a decarbonisation of the agri-food system. This project provides both. Aside from the clear economic boost the project delivers, it also delivers and promotes many intangible benefits. These include the sequestration of CO₂, mitigation of flooding from extreme rain events and provision of low carbon fresh produce for local consumers and its connection with health and well-being. For Wrexham and the local economy, the tangible and intangible benefits are abundant. In equal measure is having Wrexham and the 'Wrexham Model' for decarbonised food production, as the exemplar and benchmark for future Welsh and UK low carbon and sustainable food provision.

Annex:

A. Illustrative Organisation Chart – Five Fords low carbon glasshouse

FIVE FORDS (WREXHAM) GREENHOUSE AND PACKHOUSE – ILLUSTRATIVE ORGANISATIONAL CHART

