

INNOVATION TECHNOLOGY EVALUATION DEMONSTRATION SCHEME

Guidance Notes

Application Terms & Conditions

ENVIRONMENTAL TECHNOLOGY DEMONSTRATION FARMS

*Applications close on Friday **30 April @ 4pm***

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GLOSSARY

Regulation (EU) No 1305/2013	Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005
Applicant	Owner(s) or business representative(s) of the prospective TDF
CAFRE	College of Agriculture, Food and Rural Enterprise
DAERA	Department of Agriculture, Environment and Rural Affairs
Host	Person from within the TDF business identified in the application as the Host for demonstration events and who provided a demonstration during the selection process
Scheme	Innovation Technology Evaluation Demonstration Scheme (ITEDS)
Technology Demonstration Farm (TDF)	The farm or horticultural production business demonstrating innovative technology on behalf of CAFRE within the Scheme
Scheme Manager	Person appointed from within CAFRE as routine manager and main contact for TDFs on Scheme matters
Support Assistant	An individual appointed by DAERA to provide specified support to CAFRE in delivering the Scheme (may be from a third party organisation)
Technology Demonstration Farm (TDF)	The farm or horticultural production business demonstrating innovative technology on behalf of CAFRE within the Scheme

1. INTRODUCTION

The College of Agriculture, Food and Rural Development (CAFRE) is seeking to appoint six dairy farmers to host visits on their farms to demonstrate innovative technologies to other farmers. These farms will be known as Technology Demonstration Farms.

This document explains how CAFRE will make these appointments.

2. BACKGROUND

Technology Demonstration Farms (TDF) will be used to deliver the Innovation Technology Demonstration scheme (ITEDs).

The ITED scheme is part of the Northern Ireland Rural Development Programme (RDP) 2014 - 2020 which includes a commitment to fostering knowledge transfer and innovation in agriculture, forestry and rural areas. The scheme is also included in DAERA's Farm Business Improvement Scheme (FBIS) and is one of the subschemes designed to improve farmers' skills knowledge and technical advancement.

In May 2018 CAFRE was appointed as the Delivery Agent for the ITEDs. It will be delivering the scheme as part of its Knowledge and Technology Transfer (KTT) programme through which new technologies are investigated, developed and demonstrated to Northern Ireland's Agri-Food Industry. The network of Technology Demonstration Farms (TDFs) will enhance the demonstration phase of the KTT programme.

Financial support for the delivery of the scheme has been provided by DAERA and through the European Agricultural Fund for Rural Development (EAFRD). The EU regulatory framework for supporting rural development during this period is Regulation (EU) No 1305/2013. Within this regulation ITEDS implements Submeasure 1.2 – *Support for demonstration activities and information actions*. This sub-measure is part of Measure MO1- *Knowledge transfer and information actions*

3. OBJECTIVES

The objectives and targets for the ITEDs are:

- By 31 December 2020, to establish a network of up to 42 Technology Demonstration Farms across the dairying, beef, sheep, production horticulture, pig and crops sectors.

- By 31 December 2020, to ensure the delivery of 5,100 training days on ITEDs Technology Demonstration Farms.
- By 31 March 2024, to increase the number of adoptions of proven technologies on CAFRE supported agriculture and horticulture units by at least 2,200 additional technologies compared to the baseline* established in the year 2016-17.

*Additional technologies measured in 2016-17 year was 1,287 technologies. This will be the baseline number of new technologies per year over the duration of the ITEDs.

4. MAIN FEATURES OF THE SCHEME

Technology Demonstration Farms (TDFs) will have adopted specific proven innovative technologies and be able to demonstrate benefit to their businesses. TDFs will host demonstration events for groups of farmers and thereby assist CAFRE encouraging the adoption of specific proven innovative technologies more widely within the industry. The scheme delivery will be achieved through Scheme Agreements with these farm businesses.

5. SERVICES PROVIDED TO CAFRE BY THE TECHNOLOGY DEMONSTRATION FARM (TDF)

Each TDF will deliver the following services:

Host visits to demonstrate specific technologies

The TDF will host groups of visiting farmers to the TDF and will provide a demonstration of specified technologies. Booking of TDF visits will be through CAFRE.

As part of the demonstration the Host will explain how the technologies contribute to their business, describe the steps they took to introduce the technologies, detail the performance of the technologies and highlight any plans for the future. The Host will seek to make the visit interactive and respond to visitors' questions.

CAFRE does not guarantee the number of demonstrations, but it is anticipated that there would normally be between eight and twelve demonstrations per TDF per year.

The duration of demonstration events may vary, the average duration will be three hours.

Group size will usually range from five to twenty five participants, depending on subject. CAFRE will inform the TDF of the number of participants in advance of each visit.

Provide relevant business performance data

The TDF will provide CAFRE with business data which will illustrate the performance over time of the technologies being demonstrated.

The data required will be specified by the CAFRE technologist who will also take the lead in analysing performance and producing reports.

The reports produced by CAFRE should be used by the host farmer to illustrate to visitors how business performance has been impacted through the use of the technology.

This performance information can be published by CAFRE and may also be used to promote and evaluate the scheme. Business information not directly related to the technologies being demonstrated will not be published without the permission of the TDF.

Provide facilities and hospitality

The TDF provide suitable facilities to receive visitors for demonstration purposes and to deliver demonstrations. The TDF will provide light refreshment, typically tea / coffee and biscuits.

Provide public liability insurance

The TDF must provide public liability insurance up to a value of £5 million.

6. SUPPORT PROVIDED TO THE TDF BY CAFRE

CAFRE will provide the following support to Technology Demonstration Farms:

Technologist support

A CAFRE Technologist will support the host in preparing for visitors to the TDF. This support will involve agreeing key messages for visitors and preparing support materials.

The CAFRE Technologist will identify the business data which needs to be collected on the TDF to demonstrate the performance of the technologies being demonstrated. The TDF will provide the relevant business data.

The TDF Host can also direct technical queries towards the technologist where questions from visitors go beyond their knowledge and experience.

CAFRE may provide participants with specialist technical support to enhance Scheme effectiveness. This may include the use of a guest speaker identified by the CAFRE technologist.

Support Assistant

CAFRE will arrange for support assistance to assist with the delivery of demonstration events. The role of the Support Assistant may include –

- collating data relating to the technologies being demonstrated and forwarding this to the CAFRE Technologist
- conducting health and safety risk assessments and performing checks on agreed bio-security protocol prior to each visit
- erecting temporary signage on approach to farm
- setting up a reception area and ensuring seating is in place in audio-visual presentation area
- welcoming and directing visitors and issue of instructions in relation to H&S and bio-security
- recording attendance
- assisting with the demonstration of technologies
- recording events by taking photographs and videos
- performing post event administration
- assisting with monitoring, surveys and evaluation

Training support

CAFRE may provide TDF Hosts with training support to improve –

- the effectiveness of their communication skills
- the host's understanding of the technologies they are demonstrating.

Scheduling of demonstrations and management of bookings

All visits will be booked through CAFRE. CAFRE will liaise with the TDF Host to identify suitable dates for visits and confirm scheduling.

Cancellation or postponement of demonstration events will be the responsibility CAFRE.

7. ELIGIBLE FINANCIAL ASSISTANCE

Hosting payment

A Hosting Payment of £600 per demonstration can be claimed by the host by completing a claim form after each demonstration. This payment is to offset the costs incurred or accrued by the TDF in hosting each demonstration which may include,

for example, public liability insurance, implementation of bio-security measures, hospitality and the time associated with preparing for and hosting the demonstration.

Equipment and materials

CAFRE will provide the TDF with the necessary equipment to host demonstration events. For example, this may include signage, additional bio-security materials, chairs and audio-visual equipment. It may also include additional measuring and recording equipment necessary to provide data to support key messages. CAFRE will identify the need for any items of equipment on the TDF. The approval and procurement of items, hired or purchased, will normally be made by CAFRE following agreed procedures. Where items of equipment have been purchased these will remain the property of CAFRE. The TDF will be responsible for the safekeeping of items of equipment so that they are available for demonstrations and will notify the Scheme Manager of any mishap in relation to equipment by submission of a report. CAFRE will determine any costs to be recouped from the TDF.

Analytical Services

CAFRE will cover the costs of analytical testing to allow demonstration of the benefits of the technology. The specific analytical tests required will be determined by CAFRE who will make the arrangements for procurement and collection of samples. The results of the tests will be shared with the TDF but will remain the property of CAFRE.

Access support

Support may be available for facilities to remove barriers to the hosting of demonstration events. This may include, for example, hire of a Portaloo.

Items to be considered under access support will be determined by CAFRE. The College will also determine whether items should be purchased or hired and who should arrange and pay for items in the first instance. Purchases will be subject to normal public service procurement protocol.

The TDF must ensure that all actions undertaken in relation to the Scheme comply with the relevant statutory legislation in existence during the lifetime of the Scheme, to include Health & Safety, Farm Waste Management, planning regulations, and any other statutory requirements.

8. SELECTION OF TECHNOLOGY DEMONSTRATION FARMS

The applications to become a Technology Demonstration Farm will be appointed using a competitive process.

A separate competition will be applied for each of two Sustainability themes:

- i. Farm Habitat Creation & Management
- ii. Efficient Sustainability

An individual farm business can apply for more than one theme but can only be appointed for one theme.

CAFRE plans to appoint three farms for each theme, however it reserves the right to make more or fewer appointments.

Applications will be assessed in stages. Only applications successful at each stage can progress to the next stage:

- Stage 1: Compliance with eligibility criteria
- Stage 2: Shortlisting. This is an optional stage which CAFRE may apply if there are more than three applications for each place.
- Stage 3: On-farm assessment conducted by two members of CAFRE staff.
- Stage 4: Recommendation for appointment by Head of Sustainable Land Management Branch

9. SELECTION CRITERIA

ELIGIBILITY CRITERIA – applied at stage 1

Applications to become a Technology Demonstration Farm (TDF) must meet the following eligibility criteria:

1. The Host must be 18 years of age or over. Age will be determined at the closing date for applications.
2. The Host must not be in full-time education. Full-time education is defined as more than an average of 12 hours a week supervised study or course-related work experience.
3. A prospective TDF must be an active farm business with a DAERA Category 1 or 2 Business ID number.
4. The applicant can become a TDF for only one theme. If an applicant applies and is eligible for the farm assessment phase of more than one theme they will be contacted and asked to choose which theme they would like to compete for.

5. The applicant must be able to demonstrate that the essential technologies specified for the specific theme applied. These are detailed in Annex 1.
6. TDF's are sought under the efficient sustainability theme in each of the following farm types:
 - Dairy
 - Beef and Sheep
 - Mixed Enterprise FarmThe farm types may be considered as separate competitions if more than one eligible application is received from each farm type.
7. The Host must have no conflict of interest between the demonstration activity and non-farming commercial activities. The Host must not have a non-farming commercial activity that could be enhanced through their activity as a TDF. The panel will review any potential conflicts to determine if a conflict exists.
8. The prospective TDF must declare that they are available to deliver a minimum of eight demonstrations. CAFRE however does not guarantee that eight bookings will be made with the TDF.
9. The prospective TDF should have no unresolved issues in relation to cross compliance.
10. If the herd does not have "OTF" status with regard to Tuberculosis, the farm can still apply to be a TDF. Visits will be held remotely via a video conferencing application should either TB status or COVID restrictions prevent an on-farm meeting.
11. The prospective TDF should have no unresolved health and safety issues.
12. The Applicant should not hold *relevant* criminal convictions. The *relevance* of criminal convictions will be checked by a separate CAFRE process and will not form part of the consideration of the assessment panel.
13. There should be no restrictions to access which will limit operation as a TDF, for example, supplier Agreements or restrictions in relation to rights of way on shared laneways. The assessment panel will review any restrictions declared to determine if the restriction will limit the operation of demonstration activities.

SHORTLISTING CRITERIA – applied at stage 2 if necessary

1. Additional marks will be awarded for evidence of desirable technologies as described in Annex 1:

- One additional desirable technology (10 marks).
- Two additional desirable technologies (20 marks)
- Three additional desirable technologies (30 marks)
- Four additional desirable technologies (40 marks)

ON-FARM ASSESSMENT CRITERIA - applied at stage 4

The host will conduct/host a tour of the Technology Demonstration Farm lasting no more than three hours.

During the tour panel will assess and score the following criteria

Marks will be awarded out of 100 with the score shown in brackets:

A. Communication skills of the host farmer / grower (40 marks)

The host farmer should demonstrate their ability to communicate effectively by:

- Explaining the business/biodiversity/sustainable reason for introducing the technologies on their farm;
- Telling the story of how they introduced technologies on their farm;
- Explaining how they worked with others to effectively introduce technologies;
- Explaining how they practically engage with the technologies;
- Explaining the impact of introducing the technologies unto their farm;
- Responding effectively to questions; and
- Pacing discussions to adhere to time constraints.

Minimum Score: 20 marks.

B. Capacity of the farm to demonstrate the technologies specified (40 marks)

The host farmer should show that the farm / unit has the capacity to demonstrate the technologies specified by

- Demonstrating the appropriate use of the specified technologies on their farm;
- Showing how the technology fits into an effective farming system;
- Showing that they are using the technologies on their farm with proper regard to control of animal / plant disease; enhancing animal welfare; caring for the environment; reducing waste; health and safety of workers; and any other legal requirements and
- Explaining plans the business has to introduce additional technologies (linked to the demonstration theme) or enhance the use of existing technologies.

Minimum Score: 10 marks.

C. Suitability of the unit to receive visitors (20 marks)

The host farmer should demonstrate the suitability of their unit to receive visitors in relation to:

- Providing easy access for visitors;
- Providing suitable facilities for car-parking;
- Providing suitable visitor reception area;
- Providing a safe environment to view the technologies; and - Providing an environment that promotes good farming practice.

Minimum score: 10 marks

10. SPATIAL DISTRIBUTION

The scores including justifications of the On-farm Assessment will be presented to the Head of Sustainable Land Management Branch in CAFRE who they will determine the number of farms to be appointed. He /she will also take into account the spatial distribution of farms and may determine that, when farms are in close proximity to one another, to appoint only the farm with the highest score.

11. HOW TO APPLY

All applications must be made using an online application forms which can be accessed at www.cafre.ac.uk .

CAFRE will only consider information included in the application and it is the responsibility of the applicant to ensure the information is complete and accurate.

CAFRE will not be responsible for incomplete or inaccurate information.

The period for application will open on Wednesday 7th April 2021 and will close at 4pm on Friday the 30th of April 2021. Late applications will not be considered.

CAFRE will communicate with applicants via email. Applicants should provide a current email address for the business and notify CAFRE of any changes.

If the applicant has a special request or need for any adjustments to be made to enable them to participate in the selection competition they should inform the Scheme Manager. CAFRE will make reasonable efforts to meet the request, in keeping with CAFRE policy, and will advise the applicant on the outcome of the request.

12. PROCESSING OF APPLICATIONS

When received, your application will be acknowledged within 10 working days.

At stage 1, when the applications are being assessed for eligibility, only the information contained in the application will be considered.

The information in the remaining applications will be validated at this stage. Any application which is invalid will be removed from the competition at this stage.

The information provided by the applicant in relation to the technologies available on their farm will be reviewed by a CAFRE Technologist. The CAFRE technologist will determine on the information provided if the technology specified has been adopted on the farm.

If the technologist determines an essential technology has not been adopted the application will be removed from the competition at this stage.

If the technologist determines a desirable technology has not been adopted this technology will not be considered at the short listing stage.

At stage 2, shortlisting will be at the discretion of the Scheme Manager but will normally be used if there are more than two applications for each place.

If short listing is used the number of desirable technologies will be considered first. Those applications with more desirable technologies will be shortlisted.

At stage 4, on farm assessment, will be conducted by two members of CAFRE staff. The visit will be scheduled by CAFRE. If the time scheduled does not suit, the Scheme Manager should be immediately contacted they will consider the reasons and, on an exceptional basis, may reschedule the assessment.

The person who is designated as the Host in the application should provide a tour of the premises, demonstrate the technologies being used and present business data. As well as scoring the on-farm assessment, the CAFRE assessors will be using the visit to validate information presented in the application form. The suitability of the unit to receive visitors will also be assessed by the panel whilst on site.

The CAFRE assessors will agree the scores and prepare a report on the assessment highlighting the evidence used.

At stage 5, the Head of Sustainable Land Management Branch will review all the application information including a map show the location of those farms which have been assessed at stage 4. He/ she should write an instruction to the Scheme Manager to proceed issuing letters of offer to specific applications.

13. INDICATIVE TIMELINE

The following is an indicative timeline for the application process. This is subject to change.

Open Period for applications	Wednesday 7 th April 2021 – 4pm Friday 30 th April 2021
Ranking and shortlisting of applications	3 th May 2021 – 7 th May 2021
On-farm assessment of short listed application	17 th May 2021 – 28 th May 2021
Ranking and appointment of Technology Demonstration Farms	31 st May 2021 – 4 th June 2021
Letter of Offer issued to successful applicants	7 th June 2021 – 11 th June 2021

14. SUCCESSFUL APPLICATIONS

If a place as a TDF is offered, the offer will be made subject to any relevant conditions of the Scheme. An acceptance form will also be issued. Successful Applicants will be required to sign and return the acceptance form within 14 days of the date of the offer. After 14 days the place may be allocated to another eligible Applicant.

CAFRE will not be responsible for the non-receipt or late receipt of acceptance forms.

15. UNSUCCESSFUL APPLICATIONS

Where an application is unsuccessful the Applicant will be notified. The letter will indicate whether the application –

1. did not meet the eligibility criteria,
2. was not short-listed;
3. did not achieve a sufficiently high score in competition with other Applicants.
In this circumstance CAFRE may offer an appointment up to DATE HERE should a need arise to appoint additional Technology Demonstration Farms.

An opportunity to receive feedback on the application will be offered.

An appeals process is in place.

16. APPEALS PROCESS

A letter notifying Applicants that their application has been unsuccessful will provide an outline of the appeals procedure.

This will include the contact details for submission of the appeal and the deadline by which the appeal should be submitted. Appeals must be made in writing, by email or hard copy, and clearly state the reason for appeal in respect of the selection procedures.

Appeals will be undertaken by the Head of Agri-Business Branch or their designated deputy.

Appeals will be considered only in respect of the selection procedures. The Head of Branch will determine if procedures were not followed and if this had an impact on the outcome of the application.

Additional information in support of the application cannot be considered.

Appeals must be received within 5 working days of the issue of the letter notifying the Applicant that their application has been unsuccessful

The Head of Agri- Business Branch, or their designated deputy, will consider the grounds for appeal in respect of the selection procedures.

The appellant will be notified within 5 working days of the outcome of the appeal.

No further appeal will be allowed.

17. EQUALITY AND DIVERSITY POLICY

CAFRE is committed to providing equality of opportunity and promoting diversity. CAFRE will promote equality of opportunity between persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation; between men and women generally; and between persons with a disability and persons without; and between persons with dependents and persons without.

Applicant will be invited to complete an equality monitoring questionnaire when their application is acknowledged.

18. SHARING OF INFORMATION, DATA PROTECTION AND FREEDOM OF INFORMATION

DAERA takes data protection, freedom of information and environmental information issues seriously. It takes care to ensure that any personal information received is dealt with in a way which complies with the requirements of the General Data Protection Regulations (2016). This means that any personal information collected will be processed principally for the purpose for which it has been provided.

However, DAERA is under a duty to protect the public funds it administers, and to this end may use the information provided for this purpose. It may also share this information with other bodies responsible for the audit or administration of public funds, in order to prevent and detect crime.

In addition, DAERA may also use it for other legitimate purposes in line with the General Data Protection Regulations, Freedom of Information Act 2000 and Environmental Information Regulations 2004.

To see the full DAERA Privacy Statement please go to

<https://www.daera-ni.gov.uk/sites/default/files/publications/daera/daera-privacystatement.PDF>

CAFRE insists that Scheme Participants handle any data relating to other farms in a confidential manner. While the purpose of the Scheme is to share experience, including data, directly associated with technologies demonstrated, in the context of farm, no unrelated data associated with the TDF or the farms of other Scheme participants should be shared outside of the Scheme.

Other than information that could be requested under the prevailing Data Protection or Freedom of Information legislation, all personal information discussed as part of the Scheme, will be treated confidentially and will not be shared with anyone outside of DAERA or, in relation to the Scheme, agents or sub-contractors of CAFRE.

CAFRE, and any employees, servants, agents or sub-contractors of CAFRE in connection with the Scheme will be required to handle information and data in a confidential manner.

19. FRAUD

Any person who knowingly or recklessly makes a false statement for the purposes of obtaining assistance under this Scheme or assisting another to obtain grant aid may be prosecuted. Information provided or gathered in relation to the Scheme may be made available to other Departments/Agencies for the purposes of preventing or detecting crime.

Reporting fraud

DAERA FRAUD HOTLINE – Telephone 0808 1002716

20. CONTACT DETAILS

Correspondence regarding the scheme should be directed to:

Innovation Scheme Manager

Knowledge Transfer

CAFRE

Greenmount Campus

45 Tirgracy Road

Antrim

BT41 4PS

Telephone: 028 94426790

Email: kt.admin@daera-ni.gov.uk

Website: <https://www.cafre.ac.uk/>

ANNEX 1

Theme 1: Farm Habitat Creation and Management,

Essential Technologies

1 Use of Agri-Environmental Schemes

Demonstrates appropriate use of agri-environmental schemes to (1) enhance the positive biodiversity impact of the farm resource. (2) minimise the potential negative water quality and climate change impacts of farming activity.

Demonstrates compliance with (1) general scheme compliance requirements and (2) specific option requirements. Demonstrates appropriate timing of farm maintenance and input decisions to minimise environmental impact.

2 Habitat Creation

Demonstrates the value of areas of the farm for biodiversity, climate and water quality targets. Demonstrates the selection of suitable habitat creation technologies to improve the environmental benefit of the farm. Demonstrates a range of habitat creation technologies implemented on the farm with a minimum of three different technologies within the past 5 years.

3 Habitat Management

Demonstrate methods of habitat protection from grazing livestock. Using appropriate stocking rates to manage sensitive habitats where appropriate. Demonstrate management of non-productive areas such as margins and field boundaries to achieve maximum environmental benefit.

Desirable Technologies – Farm Habitat Creation and Management,

1 Woodland Establishment Technology

Demonstrates the use of woodland establishment. This may be through agro-forestry, establishment of native woodland, tree corridors, tree enhanced boundary, or commercial woodland establishment. Demonstrates understanding of species selection, tree protection and maintenance requirements.

2 Riparian Margin Technology

Demonstrates use of riparian buffers or margins to both protect water quality and provide enhanced habitat opportunity. Understands the protection of water quality from nutrient overland flow, and livestock trampling, and can demonstrate protection with permanent or temporary fencing.

3 Field Boundary Rejuvenation

Demonstrates understanding and use of coppicing or laying techniques to rejuvenate sub-standard hedges. Demonstrates suitable protection and maintenance of recently rejuvenated hedges.

4 Field Boundary Establishment

Demonstrates a programme of hedge planting incorporating suitable species selection, weed control, pruning management, hedgerow tree establishment and maintenance.

5. Traditional Orchard Establishment

Demonstrates the creation and maintenance of a traditional orchard.

6. Arable Options

Demonstrates the use of winter stubble or crop margins to enhance the biodiversity benefit of incorporating cropping within a NI grassland dominated agricultural landscape. Margins may be through the use of pollen & nectar, annual wildflower, rough grass or uncultivated margins.

7. Winter Feed Crop

Demonstrates the use of sacrifice cropping as a field margin or crop for summer insect feed and winter feed for birds.

8. Organic Management

Demonstrates the use of organic (conversion or management) farming technologies to enhance the environmental benefit of the farm. Understands the use of clover technology and organic cereal production.

9. Additional Habitat Options

Demonstrates the use of small scale habitat creation opportunities such as farm ponds, bat, bird boxes, and parkland trees. Demonstrates the use of locally specific opportunities such as dry stone wall renovation or Irish moiled option.

Theme 2: Efficient Sustainability

Essential Technologies

1. Carbon Footprint/Carbon Balance

Understands the importance of measuring a carbon footprint and the impact of farm management decisions. Demonstrates a carbon reduction plan and the benefits of a range of mitigation options.

2. Nutrient Use Efficiency

Demonstrates the use of nutrient management planning. For example, regular soil analysis and corrective liming policy, the use of crop fertilisation plans and nutrient application risk maps. Understands the importance of maximising organic manure nutrient across the farm and the impact on water and air quality. Demonstrates fertiliser use efficiency and technologies associated with precision nutrient application. Demonstrates an ammonia reduction plan and the use of ammonia reduction technologies.

Desirable Technologies – Efficient Sustainability

1. Soil Health

Demonstrates the use of technologies to enhance soil health. For example assessment of soil organic matter content and the use of cover crops to enhance organic matter, assessment of biological, (e.g. earthworm counts) and physical (e.g. assessing soil structure) indicators of soil health, machinery for reducing soil compaction or improving soil aeration.

2. Renewables

Demonstrates the use of renewable technologies such as PV, wind or electric vehicles.

3. Resource Efficiency

Understands the importance of resource efficiency such as water, waste and energy. Demonstrates the use of a clean and dirty water management plan. Demonstrates the use of technologies and/or practices to minimise farm waste. Demonstrates the efficient use of energy through use of an on-farm energy audit and/or technologies to reduce energy consumption.

4. Circular Systems

Aimed at the continual use of resources and eliminating waste. Demonstrates home grown proteins and feeds, using crop rotation plans, to minimise purchased feed. Recycling nutrients from manure, water, wastes. Demonstrates the use of recycling services for farm generated waste for example recycling and separation of farm plastics.

5. Habitat Creation and Management

Demonstrates the inclusion of habitat creation and management within the farm e.g. farm woodland creation and field boundary management to enhance biodiversity. Demonstrates the use of technologies to enhance watercourse habitats such as the use of riparian strips and livestock fencing along watercourses.