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| Title: | Sources of Energy |
| Level: | 1 |
| Credit value: | 1 |
| GLH | 10 |
| Unique Reference Number: | K/650/0361 |
| Aim: | This unit aims to develop knowledge of different sources of energy, identifying how renewable sources may be developed and exploring issues that may be raised with such developments. |
| Assessment | Project |
| Learning outcomes | |
| <i>The learner will:</i> | |
| 1 | Know sources of energy. |
| Delivery content: | |
| <p>The aim of this learning outcome is to provide learners with knowledge of different sources of energy. Learners will identify the concept of 'clean energy' and understand the process of how it is generated.</p> <p>The learner must:</p> <ul style="list-style-type: none"> • know non-renewable sources of energy. • know renewable sources of energy. • know what is meant by 'clean energy'. • outline the process of generating clean energy. | |
| 2 | Know issues relating to developing renewable sources of energy. |
| Delivery content: | |
| <p>The aim of this learning outcome is to provide learners with knowledge of how renewable energy may be developed.</p> <p>The learner must:</p> <ul style="list-style-type: none"> • identify limitations of renewable energy sources. • identify why objections may be raised about a specific renewable energy project. • give examples of how objections about specific renewable energy projects are managed. | |

3 Know about future developments in renewable sources of energy.

Delivery content:

The aim of this learning outcome is to provide learners with knowledge of future developments in renewable energy. Learners will identify planned future developments of renewable energy and consider the benefits and negative aspects of the development. Learners may consider developments that are in their local environment or national or international based projects.

The learner must:

- identify a future development of renewable energy.
- identify benefits of the development.
- identify negative aspects of the development.

Scope of Training

The Scope of Training identifies areas that must be covered during the delivery of this unit. This is the minimum that is expected but tutors are expected to include other areas, knowledge of which will benefit their learners, based on location, types of work available and from the tutors own professional experience.

| Requirements | |
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| Non-renewable sources of energy | <ul style="list-style-type: none"> • Oil • Gas • Coal • Uranium |
| Renewable sources of energy | <ul style="list-style-type: none"> • Solar • Wind • Tidal • Wave • Hydroelectric • Geothermal • Biomass – only if crops are replanted • Wood – only if trees are replanted |
| Clean energy | <ul style="list-style-type: none"> • From renewable sources • Nuclear energy |
| Limitations | <ul style="list-style-type: none"> • High installation costs |

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| | <ul style="list-style-type: none">• Lack of space for installations• Intermittency of supply• Lack of wind / sun |
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Scope of Assessment

Learners will complete a project that demonstrates their knowledge of sources of energy, covering:

- sources of energy
- issues relating to developing renewable sources of energy
- future developments in renewable sources of energy

Learners identify renewable energy developments in their region or focus on a national or international development.

Where appropriate learners will use publicly available resources such as websites, news articles, publicity materials or reliable online videos such as YouTube videos to research future developments of renewable sources of energy.