**Solar Electric Technician (Level 2)**

**Module 5: Installation and assembly**

**E1: Assignment – Analysis of different types of solar PV systems installed in varying environments**

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| **E1: ASSIGNMENT MEMO** | |
| **Date** | …. |
| **To** | Participants |
| **From** | Trainers |
| **Subject** | Analysis of different types of solar PV systems installed in varying environments. |
| **What** | Analyse the different conditions of solar PV mounting structures. |
| **Why** | The objective of the assignment is to understand the scenarios and challenges faced in the installation and performance of solar PV systems across different environments. |
| **How** | 1. Work in group of 2. 2. Study the varying case studies. 3. Read carefully the provided guidelines and record your observations and findings in the given table for each case studies. 4. Answer the questions in the survey form and share answers when requested by the trainer and participate in the discussion. |
| **Time** | 60’ |

**Study the case studies**

As part of your assignment, you’ll need to review several case studies that highlight different solar PV installations across various environments. Here’s how to approach this task effectively:

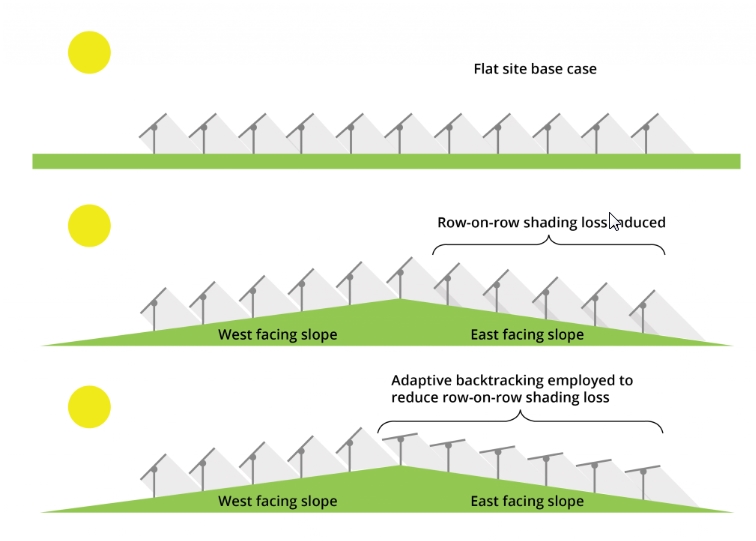
**Case study review guidelines**

1. **Understand the context:**
   * Read through each case study carefully, noting the specific environment (urban, rural, residential, commercial).
   * Identify the key characteristics of the location, such as geographical features, climate, and available space.
2. **Focus on installation details:**
   * Pay attention to the type of solar PV system installed (e.g., rooftop, ground-mounted, tracking systems).
   * Note the mounting structures used and their design considerations (material, angle, stability).
3. **Identify challenges:**
   * Look for any challenges mentioned in the installation process, such as:

* Site accessibility
* Shading from nearby structures or trees
  + Weather-related issues (e.g., heavy rain, dust accumulation)

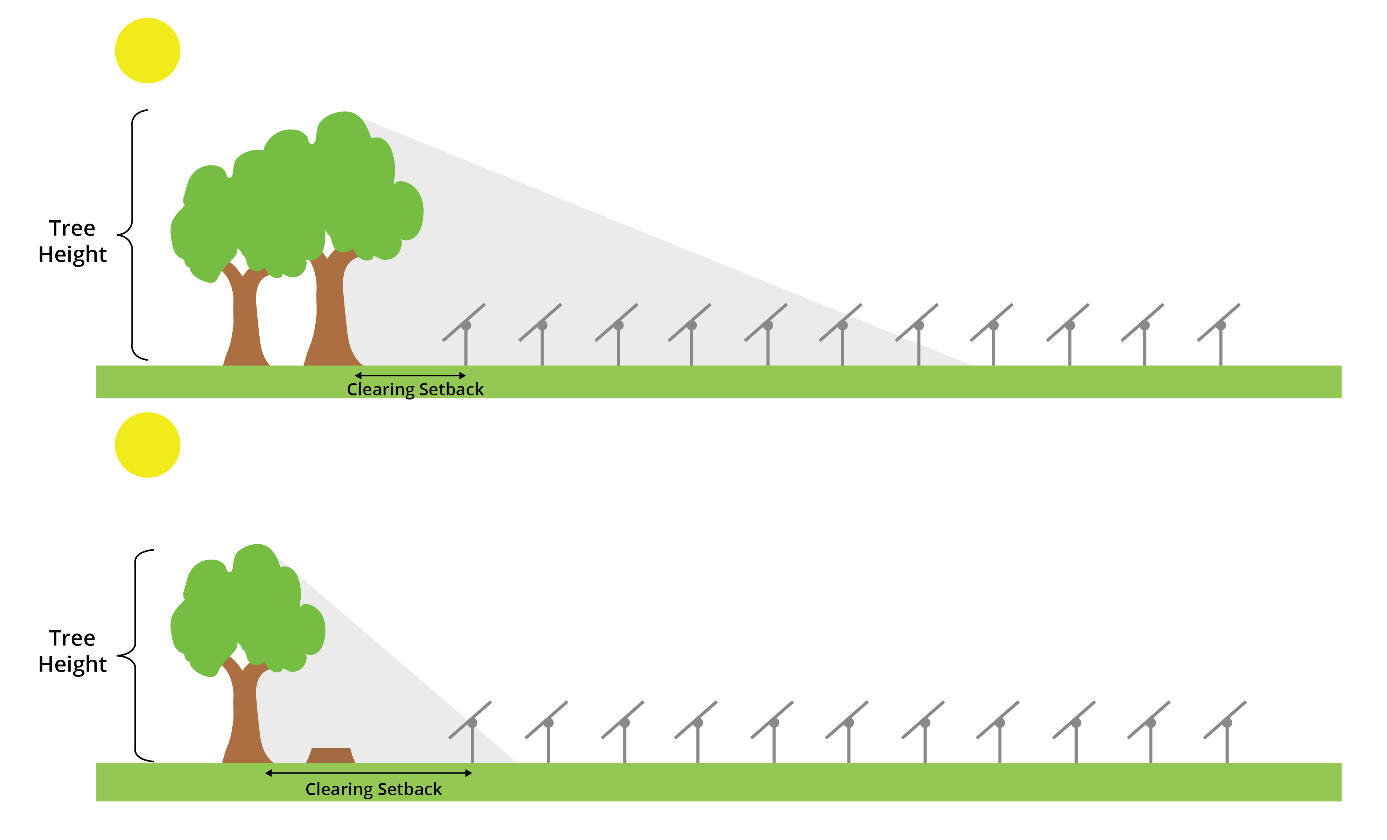
1. **Examine performance factors:**
   * Analyze how environmental conditions impact system performance.
   * Look for data or observations related to energy production, efficiency, and maintenance needs.
2. **Explore innovative solutions:**
   * Identify any innovative techniques or technologies used to overcome challenges.
   * Note any best practices highlighted in the case studies that could be applied to similar situations.
3. **Document your findings in the given table:**
   * Take notes on key points from each case study to prepare for your survey form responses.
   * Be ready to discuss your insights with your partner and in the group discussion.

**Case 1:**



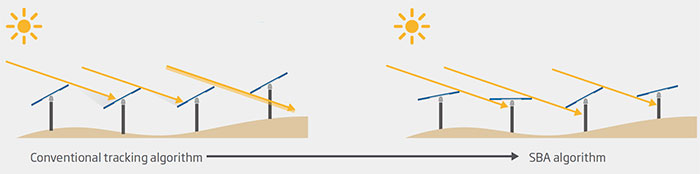
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| **Findings/Observations** |
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**Case 2:**



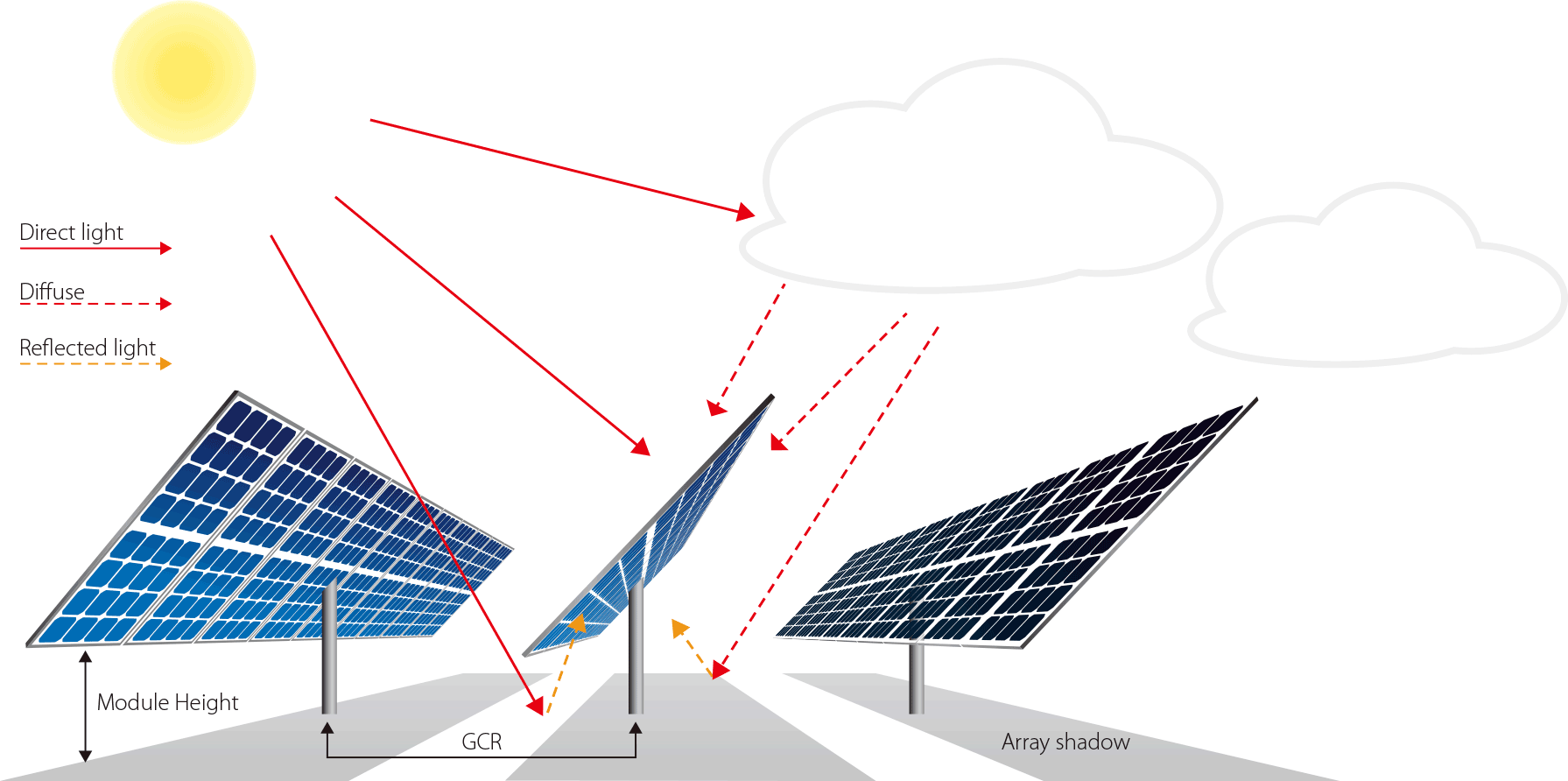
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| **Findings/Observations** |
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**Case 3:**



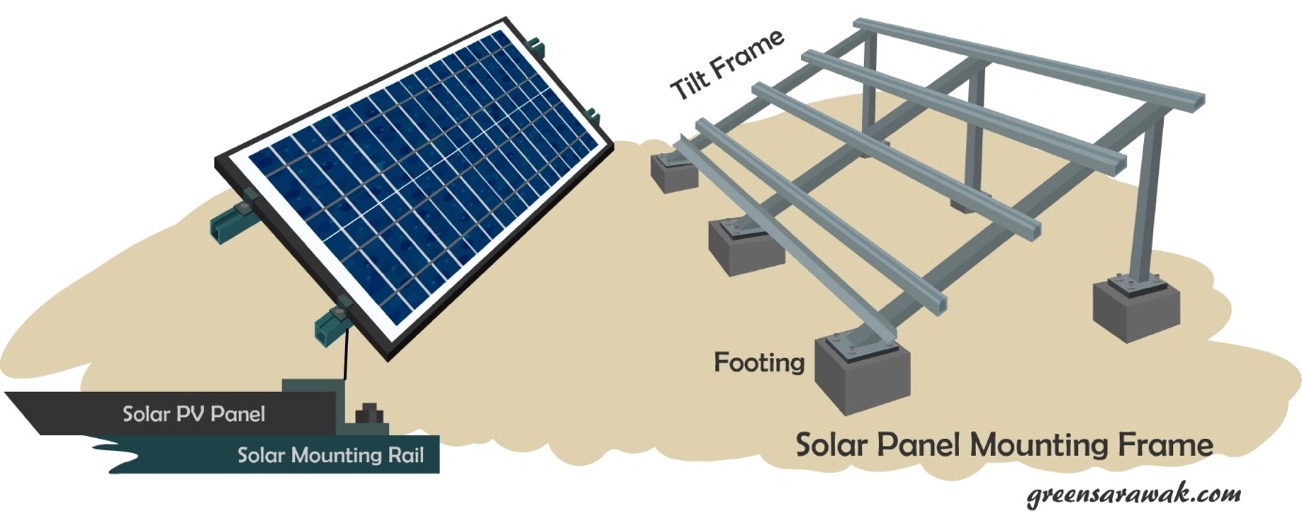
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| **Findings/Observations** |
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**Case 4:**



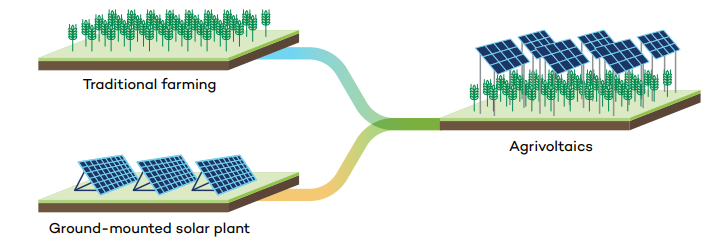
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| **Findings/Observations** |
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**Case 5:**



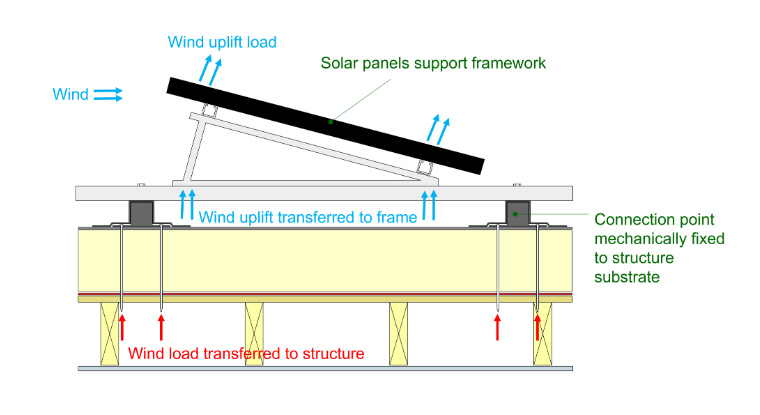
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| **Findings/Observations** |
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**Case 6:**



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| **Findings/Observations** |
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**Case 7:**



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| **Findings/Observations** |
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