**Supplementary File 1.** Overview, actors claims, objectives and values Abdissenbosch

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|  | **Actor** | **Claim** | **Objectives** | **Landscape Values** |
| **Politics** | College of the municipality of Landgraaf | Wind turbines in Landgraaf, on condition of the RAK, social support, benefits for residents and protection of nature | Develop energy parks to achieve region's ambition of being energy neutral by 2040 (PALET) reach the national Climate Agreement (via RES) | Climate   |
| Solar parks in Landgraaf, on condition of the RAK, social support, benefits for residents and protection of nature |
| Bundeswehr | No windturbine at Kreupelbusch above 90 m for safety | Protect empty horizons so that the Awacs planes landing and taking off from the army base at Geilenkirchen are not hindered | Well-being |
| Parties GBBL, CDA, LWH, VVD, OPL, Progressieven | No wind turbines in Landgraaf, voted in council meeting | - Listen to citizens requests- Protect public health- Conserve the environment | - Well-being- Biological |
| Party SP | Develop wind turbines and solar parks only on condition of clear support and benefits without sacrificing nature | Biological |
| No solar park at Kreupelbusch, voted in council meeting due to unclear support of and benefits for citizens (but in favour) |
| Province Limburg | Solar parks outside exclusion areas POL14 and concept Zoning Vision and in preferred areas' POL14 | Develop wind turbines & solar panels to achieve region's RES targets and ambition for reaching the national Climate Agreement (on condition of protecting Natura 2000 and NNN) | Climate |
| Windturbines outside exclusion areas POL14, and concept 'omgevingsvisie' and preferably in 'voorkeursgebieden' POL14 |
| Kreupelbusch as part of Heidenatuurpark, with ecoduct across the Europaweg-Noord, between the Brunssummerheide and the Tevenerheide | Create a robust international ecological connection so that plants and animals can spread again | - Biological- Ecological |
| **Planet** |
| Natuurmonumenten | - Ecological- Biological |
| IKL | Investments should be made in the natural values of the area | - Create diverse environment- Better habitat for species - Development of nature and conservation | - Ecological- Biological |
| NMF Limburg | Kreupelbusch as exclusion zone for wind and solar parks in the 'zonnevisie' due to Gold-Green nature label within NNN | - Preserve valuable nature and protect plant/animal species- Energy development not at the expense of the landscape, else compensation | - Ecological- Biological |
| Resident of Abdissenbosch: Burger | Kreupelbusch is Gold-Green nature zone (NNN) and part of Heìdenatuurpark so energy development should be excluded | - Prevent degradation of nature- Maintain ecological link between the two internationally protected Natura 2000 areas Brunssummerheide and Tevenerheide | - Ecological- Biological |
| Initiator and landowner Bodemzorg | Solar park at Kreupelbusch, on condition of ground protection and profitable business case | Repurpose closed landfill sites to a socially responsible function with the aim to: - prevent negative effects on surroundings- invest in the natural values of the area- support sustainability policies | - Biological, - Well-being - Economic |
| **Profit** | Wind turbines at Kreupelbusch on outskirts next to border |
| Developer Unisun Energy | Solar park with 30.000 panels at Kreupelbusch, generating12,5megawatts | Build solar park to provide clean and sustainable energy solutions and achieve revenue | Economic |
| Developer NPG Energy / Enovos  | 3-4 wind turbines at Kreupelbusch on outskirts next to border | Build wind park to contribute to sustainable growth of industrial zones | Economic |
| **People** | Residents of Abdissenbosch | No wind turbines because of horizon pollution, impact shadow and noise pollution | - Keep empty horizons- Preserve attractive scenery- Prevent health hazards and disturbance | - Aesthetic- Well-being |
| Advisory group Abdissenbosch | Solar park on condition of nature conservation and enhancement of area | - Preserve and upgrade existing natural values and biotopes of the area- Keep the area accessible to everyone - Educate walkers and children about flora/ fauna | - Biological- Ecological - Recreation- Learning |

**Supplementary File 2.** Overview of actor claims, objectives and values Akerweg

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|  | **Actor** | **Claim** | **Objectives** | **Landscape Values** |
| **Politics** | Province Limburg | Solar parks outside exclusion areas POL14 and concept Zoning Vision and in preferred areas POL14 | Develop solar panels to achieve region's RES targets and ambition for reaching the national Climate Agreement (on condition of protecting Natura 2000 and NNN) | Climate |
| college of Municipal Landgraaf | Solar parks in Landgraaf, on condition of the RAK, social support, benefits for residents and protection of nature | Solar panels to achieve region's ambition of being energy neutral by 2040 (PALET) and reach the national Climate Agreement (via RES) | Climate |
| Parties GBBL, CDA and LWH | No solar park at Akerweg without social support and scarce and precious outdoor areas should be treated with care | - Protect the green areas valued by citizens- Foster tourist attractiveness- Prevent the use of agriculture or nature locations for large-scale energy production | - Aesthetic- Economic- Recreation - Subsistence |
| Parties SP, VVD, OPL, Progressieven | No solar parks on any precious agricultural or nature areas in Landgraaf, voted in council meeting | - Protect nature and agriculture areas- Prevent negative effects of energy development on citizens and flora/fauna.- Only solar panels on rooftops possible | - Biological- Subsistence- Aesthetic- Well-being |
| Party GroenLinks | Avoid solar parks on agricultural or nature area | - Protect scarce green areas- Preferably place solar panels on rooftops or areas with non-primary functions | - Aesthetic - Biological |
| **Planet** | NMF Limburg | Take values of the existing landscape into account if installing solar park in Akerweg, as it is in the search area of the NMF 'zonnevisie' | - Assure well embeddedness of the solar park in the landscape- Prevent negative impacts on landscape & nature- Facilitate participation | - Biological - Ecological- Aesthetic |
| IVN Limburg | No solar park as it will be at the expense of flora and fauna and especially be negative for the deer residing there | - Avoid sacrificing nature for building a solar park- Protect habitat for the deer | - Biological- Ecological |
| Local farmers | No energy development in precious farmland | Protect scarce farmland and habitat of deer | - Economic - Subsistence- Biological |
| **Profit** |
| Initiator/ developer Kronos Solar | Solar park at Akerweg with approx. 27.000 panels, generating 12,3 megawatts | - Grow market by buildings new parks in NL- Replace fossil fuels with green energy | Economic |
| German landowner parcel Akerweg | Solar park at his parcel at the Akerweg | Make an agreement that is beneficial economically | Economic |
| **People** | Residents living in and enjoying area around Akerweg | No solar park to keep scarce nature for people and animals to enjoy and precious agriculture land intact | - Conserve the biological & authentic function of the area- Protect the beautiful scenery- Protect recreation activities- Protect the welfare of vulnerable animals | - Aesthetic- Biological- Recreation - Subsistence |

**Supplementary File 3** illustrates the results of the evaluation, using a Likert-scale with 3-scales: 1 = not present; 2 = insufficiently/ partially present; 3 = present. In the following, we compare the observations made.



**Supplementary File 4** illustrates the list of actors interviewed.

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|  | **Actors** | **Date interview** | **Case** |
| **Profit** | 1 | NPG Energy, former project developer  | 19 July 2021 | Adbissenbosch |
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| **Politics** | 2 | Municipality of Landgraaf, Sustainability Coordinator | 20 July 2021 | Adbissenbosch & Akerweg |  |
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| 3 | Municipality of Landgraaf, Alderman | 20 July 2021 | Adbissenbosch & Akerweg |  |
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| **People** | 4 | Resident of Ubach over Worm | 21 July 2021 | Akerweg |  |
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| 5 | Resident of Abdissenbosch  | 21 July 2021 | Abdissenbosch |  |
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| 6 | Resident of Ubach over Worm | 21 July 2021 | Akerweg |  |
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| **Planet** | 7 | IKL, landscape designer | 22 July 2021 | Abdissenbosch |  |
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| **Profit** | 8 | Kronos Solar, manager | 22 July 2021 | Akerweg |  |
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| **Politics** | 9 | Province Limburg, projectmanager | 26 July 2021 | Abdissenbosch |  |
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| **Planet** | 10 | Bodemzorg Limburg, projectmanager | 27 July 2021 | Abdissenbosch |  |
| **Profit** |  |
| 11 | Unisun Energy, CEO | 28 July 2021 | Akerweg |  |
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| **Planet** | 12 | Natuur en Milieufederatie Limburg, employee | 28 July 2021 | Adbissenbosch |  |
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| 13 | Natuur en Milieufederatie Limburg, employee | 28 July 2021 | Akerweg |  |
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| **People** | 14 | Chairman advisory group | 29 July 2021 | Abdissenbosch & Akerweg |  |
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| **Politics** | 15 | Municipality of Landgraaf, Alderman | 5 August 2021 | Abdissenbosch & Akerweg |  |
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