# Teaching module: Philosophy and ethics of energy development Session 2: The conflict between industrial past and environmental values

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**Class plan Class time:** 4 × 45 min

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| No. | Activity name | Procedure | Teaching guide | Method | Interaction type\* | Expected outcome | Materials | Overall time |
| 1 | Energy transition in Germany | 1. Video about ‘energy transition’ in Germany.
2. Discuss the video.
 | The introductory video screening helps to frame the focus of the session, which will continue with stepwise analysis of the current energy constellation in Europe from the viewpoint of social sciences and humanities (SSH).  | * Presentation
* Discussion
 | T ↔ Ss | * Understanding the rising social awareness of the environmental impacts of energy production
* Understanding the historical conditions of energy development
 | * TM2-ST2-RM1-introductory video
 | 15 min |
| 2  | Energy and historically changing relationship to the environment | 1. Explain the rising social awareness of the environmental impacts of energy production.
2. Explain present situation in energy production as resulting from historical development.
 | T uses the PPT presentation. T guides Ss to the insight that rebuilding and dismantling inherited energy infrastructure means at the same time re-interpreting and re-evaluating the European industrial past. | * Lecture
 | T → Ss | * TM2-ST2-AM1-PP lecture
 | 20 min |
| 3 | Nuclear energy and sustainable development | 1. Video about “the nuclear option”.
2. Discuss the video.
 | The second video screening draws students’ attention from the past to the future of energy planning. The discussion should help to unveil the values behind the nuclear option. | * Presentation
* Discussion
 | T ↔ Ss | * Understanding the role of SSH aspects in uncertainty in the energy sector
* Cultural meaning of energy decentralization
 | * TM2-ST2-RM2-video on the nuclear option
 | 15 min |
| 4 | Current uncertainties about the energy future  | 1. Explain uncertainties in today’s energy markets and policies.
2. Explain cultural implications of energy decentralization.
 | T uses the second PPT presentation and continues with the lecture. | * Lecture
 | T → Ss | * TM2-ST2-AM2-PP lecture
 | 20 min |
| 5 | What is Oxford debate? | 1. Present the Oxford debate
2. Check that Ss understand the rules of the procedure.
3. Divide students into groups.
 | T uses the PPT presentation to explain the principle and rules of the Oxford-style debate. T may use the opportunity before the break and ask Ss to split into three groups: group 1 – presents and defends the nuclear energy thesis, group 2 - argues against nuclear energy, group 3 works as a ‘jury’. T assumes the role of a ‘marshal’ moderating the debate. | * Lecture
* Discussion
 | T → SsT ↔ Ss | * Understanding the procedure of an Oxford-style debate
 | * TM3-ST2-AM3-PP Oxford debate
 | 20 min |
| No. | **Activity name** | **Procedure** | **Teaching guide** | **Method** | **Interaction type\*** | **Expected outcome** | **Materials** | **Overall time** |
| *break* |
| 6 | Getting ready for the debate | 1. T’s keynote to the debate
2. Ss in groups prepare for the debate.
 | T and Ss organize the space so that each group can work separately without disturbing the other group(s). T highlights the goal of the debate, which is to pursue and comprehend the interconnection of energy scenarios with values attached to technologies and the impacts these technologies are likely to have on the society (social relations). Group 1 obtains the material for speaking in proposition; group 2 the material for speaking in opposition to nuclear energy, group 3 (audience) obtains both materials. | * Presentation
* Group work
 | T → SsSs ↔ Ss | * Improved competence to verbalize of non-technical views and observations
 | * TM2-ST2-AM4-in favor of nuclear energy
* TM2-ST2-AM5-against nuclear energy
* TM2-ST2-AM6-handout
 | 30 min |
| 7 | The role of the nuclear in energy transition | 1. 1st round of the debate
2. 2nd round of the debate
3. Voting & debriefing
 | T moderates the Oxford debate according to the rules and prevents it from slipping to too narrow technical terms. During the debate, T notes down the most important findings or arguments. At the end, Ss vote on the winner of the debate. T uses his or her notes to summarize the debate and evaluate its results. | * Oxford debate
 | Ss ↔ SsT ↔ Ss | * Improved competence to articulate and defend views in public communication about energy
 | * TM2-ST2-RM3-reading tips
 | 60 min |

\* Interaction type:

**T** – teacher

**S** – student

**Ss** – students

**→** - one way

**↔** - two way