



**PO/ES 320 ENVIRONMENT, ENERGY AND THE EUROPEAN CITY:
EU AND THE URBAN CHALLENGES OF 2050**

IES Abroad Freiburg European Union Program Syllabus

DESCRIPTION:

In the past 100 years, the world has faced a period of ever increasing and accelerating global warming and climate change. By overwhelming scientific consensus, one of the major drivers of this development is the human use of fossil fuels. Acknowledging this causality, the EU has developed plans to prevent the amplification of climate change and foster sustainable development based on balanced economic growth and environmental protection. Hence, the EU takes a leading role in creating policies to combat the climate crisis, with the European Commission calling for a climate neutral EU by 2050 in its so-called Green New Deal. By the same token, the EU has sought to serve as a model for environmental standards and regulation. This incorporates new approaches to the circular economy, to clean air, to waste and recycling, to water resource use and to the environment as a whole. Two factors play a major role in these plans: The industrial use and production of energy and the city as a concept and living space and urbanization play a particular role in this development, as can be seen as well in the UN's Sustainable Development Goal 11: Sustainable cities and communities.

This course aims to examine the interaction between politics and policies related to energy and the environment EU-wide, and their application by municipalities and local governments in the cities of Europe. The focus will be on the relationship between politics and the social and environmental contexts, in other words the lived experiences of the people who dwell in these cities.

What then is a city? To what extent are European cities dependent on their past? To what extent are they heralds of the future? What ideologies and ideas are exhibited in city-planning? In what ways are European cities changing? And in what ways should they be changing? What role does the EU have in shaping these processes? Freiburg, the eco-capital of Germany, is particularly well placed for studying the consequences of EU energy and environmental policies on the European city. And Freiburg can be compared to achievements and failures with regard to energy and environmental policies in other cities, whether in Eastern, Southern or Western Europe, cities which will be visited during the IES organized course-related trips (see explanation below).

This trans-disciplinary course will acquaint the students with the emergence of politics and policies connected to energy, the environment and the city over the past few decades in the countries that now constitute the EU. It will familiarize them with examples of best practice solutions for the city, which may serve as benchmarks for the adjustments faced by 21st century society in the EU and beyond.

CREDITS: 3

CONTACT HOURS: 45 hours

LANGUAGE OF INSTRUCTION: English

ADDITIONAL COST: None



PREREQUISITES: One previous course in philosophy, history, economics, politics or other equivalent.

METHODS OF PRESENTATION: discussion of readings, case studies, talks by academics and practitioners including meetings with policymakers and other relevant actors during course-related trips.

REQUIRED WORK AND FORM OF ASSESSMENT:

- Participation - 10%
- Midterm - 30%
- City reform project - 30%
- Final exam - 30%

Course Participation:

Students are required to complete all reading assignments and will be expected to demonstrate this through regularly assigned homework, pop quizzes and/or insightful and relevant contributions to in-class discussion. All of these components will count toward the class participation grade. Participation also applies to course-related trips, outings and/or special events in and around Freiburg. A rubric for participation is available on Moodle.

A	Excellent participation The student's contributions reflect an active reading of the assigned bibliography. Skillfully synthesizes the main ideas of the readings and raises questions about the applications and implications of the material. Demonstrates, through questions and comments, that he or she has been capable of relating the main ideas in the readings to the other information discussed in the course, and with his or her own life experience. The student makes informed judgments about the readings and other ideas discussed in class, providing evidence and reasons. He/she respectfully states his/her reactions about other classmates' opinions and is capable of contributing to the inquiry spiral with other questions. The student gets fully involved in the completion of the class activities.
B	Very good participation The student's contributions show that the assigned materials are usually read. Most of the time the main ideas are identified, even though sometimes it seems that applications and implications of the information read were not properly reflected upon. The student is able to construct over others' contributions, but sometimes seems to interrupt the shared construction to go over tangents. He/she is respectful of others' ideas. Regularly involved in the activities but occasionally loses concentration or energy.
C	Regular participation The participant evidences a regular reading of the bibliography, but in a superficial way. He/she tries to construct over others' ideas, but commonly provides comments that indicate lack of preparation about the material. Frequently, contributions are shallow or unarticulated with the discussion in hand.
F	Insufficient participation Consistently, the participant reads in a shallow way or does not read at all. Does not participate in an informed way and shows lack of interest in constructing over others' ideas.

Midterm Exam

(90 minutes) The midterm (session 8) will be held after the end of the first part of the class and focus on the contents of the required readings and the classroom sessions. It will consist of two short essay questions.



City Reform Project

The city reform project is composed of three separate components. First, a 2500 word paper (50% of the evaluation of the city reform project); second, a 10-15 minute presentation in class (30% of the evaluation of the city reform project); third, two media interventions related to the political campaign, written, audio and/or video (20% of the evaluation of the city reform project).

Students will work in teams of two to four. They will select a European city and a political party they would like to represent. Students are advised to select cities they will be visiting as part of their course-related trips.

Students should put together a political campaign at the municipal level focusing on aspects of energy and environmental policies for the given city. The paper will set out detailed proposals for the city over the next four years and explain how policies at the municipal level can be combined with and benefit from synergies with EU regulations and policies. The presentation and media interventions will constitute a part of the municipal election campaign. The aim of the campaign, of course, is to persuade inhabitants of the city to vote for this particular platform and the energy and environmental solutions proposed. Evaluation will be based both on the content of the proposals, and on the ability to convey these proposals in a convincing manner.

A preliminary city and political orientation, outline, and bibliography will have to be handed in **session four** and the paper and presentation are due in **session 17**. As a second step in the development of the course, this project might also be carried out in combination with other IES Centers by running parallel election campaigns for any given EU city.

Final Exam

The final exam (session 19) will be comprehensive in nature. In 120 minutes, students will write two short essays dealing with topics from the entire class. Detailed instructions on the content of the final exam will be distributed in advance.

LEARNING OUTCOMES:

By the end of the course students will be able to:

- define key concepts that have framed EU policies on energy and environment;
- describe basic political, economic and cultural orientation with respect to energy and environmental politics and policies throughout the EU;
- summarize key events in the formation of environmental and energy policies in the EU as these relate to the US and the rest of the world;
- explain key challenges the EU faces in the energy and environmental fields up until 2050;
- evaluate the interaction between energy and environmental policies on the supra-national, national and local/municipal levels;
- assess about the achievements and shortcomings of this interaction in Freiburg and other EU cities;
- posit areas for transfer of successful environmental policies between the EU and the US.

ATTENDANCE POLICY:



All IES courses require attendance and participation. Attendance is mandatory per IES Abroad policy. Any unexcused absence will incur a penalty on your final course grade (1 absence - 1%, 2nd absence -2%, 3rd absence – 3%). Any student who has more than three (3) unexcused absences will receive an “F” as the final grade in the course. Any student who misses more than 25% of a course, whether the absences are excused or are unexcused, will receive an “F” as the final grade in the course. Absences due to sickness, religious observances, and family emergencies may be excusable at the discretion of the Center Director. In the case of an excused absence, it is the student’s responsibility to inform the Academic Dean of the absence with an Official Excused Absence Form, as well as any other relevant documentation (e.g. a doctor’s note), and to keep a record thereof. The absence form must be turned in as soon as possible before the class, in the case of a planned absence, or immediately upon return to the Center, in the case of an unplanned absence, in order for the absence to be considered excused. It is also the student’s responsibility to inform the professor of the missed class. Students can collect and submit the Official Excused Absence Form from the office of the Academic Dean.

TESTS, QUIZZES, OR PRESENTATIONS MISSED DURING UNEXCUSED ABSENCES CANNOT BE MADE UP!

ASSIGNMENTS NOT HANDED IN ON THE DUE DATE WILL BE SUBJECT TO A 3% PENALTY PER DAY POST-DUE DATE (with the exception of students who have an excused absence).

ACADEMIC INTEGRITY CODE:

Regardless of the quality of work, plagiarism is punishable with a ‘failing grade’ in the class. Plagiarism may be broadly defined as “copying of materials from sources, without acknowledging having done so, claiming other’s ideas as one’s own without proper reference to them, and buying materials such as essays/exams.

Updated information on your course and readings, including additional readings from journalistic articles, can be found on the Moodle platform at <https://moodle.iesabroad.org/login/index.php>

CONTENT:

Week	Content	Assignments and Readings
Part 1: The Debate over Energy and the Environment in the EU		
Session 1	Introduction: Debating sustainability in terms of energy and the environment <i>What is ‘sustainability’?</i> <i>Where did the term come from?</i> <i>What is its relationship with economic development?</i>	Required readings: Ashford, N.A., Hall, R.P., <u>Technology, Globalization and Sustainable Development. Trans-forming the Industrial State</u> , pp. 56-105. (50 pages) Rifkin, J., <u>The Third Industrial Revolution</u> , World Forum, Lille. http://www.youtube.com/watch?v=naXLMlqlxdo (75 minutes) Recommended reading: Latour, B., <u>Down to Earth. Politics in the New Climatic Regime</u> , pp. 1-24. (24 pages)
Session 2	EU policies and debates regarding the climate crisis <i>What are the current policies and debates on climate change in the EU?</i>	Required readings: European Environmental Agency: <u>Climate change puts pressure on Europe’s energy system</u> .

	<i>What is a climate emergency?</i> <i>What is the difference of policies between the EU and the US?</i>	https://www.eea.europa.eu/highlights/climate-change-puts-pressure-on Helm, D., <u>Burn Out. The Endgame for Fossil Fuels</u>, pp. 162-179 and pp. 224-240. (33 pages)
Session 3	Energy and environmental policies in an urban context <i>When did the EU decide to become an environmental champion?</i> <i>Who made the decision?</i> <i>Why?</i> <i>Has the EU succeeded?</i>	<u>Required readings:</u> Delreux, T., Happaerts, S., <u>Environmental Policy and Politics in the EU</u>, pp. 12-57 (46 pages) <u>Recommended reading:</u> Knill, C., Liefferink, D., <u>Environmental politics in the European Union: Policy-making, implementation and patterns of multi-level governance</u>, pp. 47-76. (30 pages)
Session 4	“Energiewende”, energy security and the limits to energy union <i>Does the rise of renewable energy affect energy security?</i> <i>What is the relationship between renewable energy, energy efficiency and energy security?</i> <i>Is this the endgame for fossil fuels?</i>	<u>Required readings:</u> Morris, C., Jungjohann, A., <u>Energy Democracy: Germany’s Energiewende to Renewables</u>, pp. 341-378. (38 pages) <u>Recommended reading:</u> Delbeke, J. & Vis, P., <u>EU Climate Policy Explained</u>, pp. 29-60. (31 pages)
Session 5 Local excursion	Nuclear vs. renewable energy: cul-de-sac or unexpected rebirth of a discredited technology? What are the alternatives? <i>Is nuclear energy production really clean and climate-neutral?</i> <i>Does short-term climate friendliness offset long-term risks?</i> Visit to local renewable energy producer (see below for explanation)	<u>Required readings:</u> Morris, C., Jungjohann, A., <u>Energy Democracy: Germany’s Energiewende to Renewables</u>, pp. 314-340. (27 pages)
Experiencing Europe: “European Parliament” Course-Related Trip Destination: Strasbourg, France (1 day)		
Session 6	Social Movements, political parties and urban politics <i>What was the role of social movements in environmental and urban politics?</i> <i>What has the role of workers’ associations and religion been?</i>	<u>Required readings:</u> Van Haute, E., <u>Conclusion</u>, Green Parties in Europe, pp. 315-325. (10 pages) Ruser, A., Machin, A., “Nationalising the Environment: is the Far-Right Turning Green?”, Green European Journal, September 2019. https://www.greeneuropeanjournal.eu/nation

	<i>Which political movements have gone green?</i> <u>*City reform proposals and initial bibliography due</u> There will be a course related meeting in Brussels (e.g. European Environmental Bureau)	alising-the-climate-is-the-european-far-right-turning-green/ (5 pages). White, D. <u>"Ecological democracy, just transitions and a political ecology of design"</u>, Environmental Values (28), 2019, pp. 1-22 (22 pages) <u>Recommended readings:</u> DeSilvey, C., Harrison, R., "Anticipating loss: rethinking endangerment in heritage futures", International Journal of Heritage Studies, 2019, pp. 1-7. (7 pages)
Experiencing Europe: "EU Institutions" Course Related Trip Destinations: Brussels, Belgium, and Paris, France (7 days)		
Session 7	Evaluating utopias: the environment and challenges to the EU to and beyond 2050 <i>How do energy and environmental policies affect the four freedoms of the EU, free movement of people, goods, capital and services?</i>	<u>Required readings:</u> Jordan, A. and Adelle, C., <u>Environmental Policy in the EU</u>, pp. 367-387. (21 pages) Burns, C. et al. <u>"EU environmental policy in times of crisis"</u>, Journal of European Public Policy, 2020, pp. 1-19. (20 pages) <u>Recommended Readings :</u> Klein, N., This Changes Everything. Capitalism vs. The Climate, pp. 449-466. (24 pages)
Session 8	Mid-term examination	
Part 2: Energy, Environment and the European city		
Session 9	The city <i>What is a city?</i> <i>Why the city?</i> <i>How does the city come about?</i> <i>How is the city related to energy and environmental policies?</i>	<u>Required readings:</u> Ponting, C., <u>A New Green History of the World: The Environment and the Collapse of Great Civilizations</u>, pp. 295-313. (18 pages) Elmqvist, T. et al., <u>"Sustainability and resilience for transformation in the urban century"</u>, Nature Sustainability (2), April 2019, pp. 267–273. (7 pages) Auken, I., <u>"Welcome to 2030. I own nothing, have no privacy, and life has never been better."</u> https://www.weforum.org/agenda/2016/11/s hopping-i-can-t-really-remember-what-that-is/
Session 10	Transformations of the European city <i>City vs. countryside?</i>	<u>Required readings:</u> Jabareen, Y.R., <u>Sustainable urban forms: Their typologies, models, and concepts</u>, pp. 38-52. (15 pages)

	<i>Is the city parasitical on the countryside?</i> <i>What are the pathologies of the city?</i> <i>What is urbanization and what are its limits?</i> <i>What challenges does globalization pose for the city?</i>	Reckien, D. et al., <u>Climate change response in Europe: what's the reality? Analysis of adaptation and mitigation plans from 200 urban areas in 11 countries</u>, pp. 331-340. (10 pages) <u>Recommended Readings</u> Kabisch, N. et al., Nature-based solutions to climate change mitigation and adaptation in urban areas: perspectives on indicators, knowledge gaps, barriers, and opportunities for action. <i>Ecology and Society</i>, 21(2), pp. 1-60. (60 pages)
Session 11 Local excursion	Freiburg and the Vauban city tour <i>Visit to Vauban to discuss Freiburg as an ideal, followed by discussion session (see below for explanation)</i>	<u>Required readings:</u> Stadt Freiburg im Breisgau, <u>Green City Freiburg. Approaches to Sustainability</u>, Freiburg: Freiburg Wirtschaft Touristik und Messe GmbH & Co. KG, pp. 1-28. (28 pages) Wagenaar, H., Wilkinson, C., <u>Enacting resilience: A performative account of governing for urban resilience</u>, pp. 1265-1284. (19 pages)
Experiencing Europe: The European Union Funds in the Region Destination: South Baden, Germany (see selection in description below) (1 day)		
Session 12	EU policies and local and urban governance <i>How do policies at a pan-European level connect with local and urban citizens?</i> <i>What makes a city go 'green'?</i>	<u>Required readings:</u> Knill, C. and Liefferink, D., <u>Environmental politics in the European Union: Policy-making, implementation and patterns of multi-level governance</u>, pp. 145-178. (24 pages) <u>Recommended readings:</u> Frey, W., Freiburg: Green City: Wege zu einer nachhaltigen Stadtentwicklung/Approaches to Sustainable Urban Development, 30-68. (39 pages, work in English and German)
Session 13	Movement, migration and the social city <i>What is the impact of migration into and out of a city?</i> <i>How does a city adapt to changes in its population?</i>	<u>Required readings:</u> Haase, A. et al., <u>Varieties of shrinkage in European cities</u>, pp. 86-102. (16 pages) European Commission, <u>Integrated Environmental Management: Guidance in relation to the Thematic Strategy on the Urban Environment</u>, pp. 1-29. (29 pages)

Session 14	Mobilizing businesses <i>Are life cycle and ecological footprint approaches to business in the EU part of an answer?</i> <i>What role for consumer information?</i> <i>How does the environmental impact upon the free trade consensus?</i>	<u>Required readings:</u> European Commission (2020), <u>Green City Tool</u> , https://webgate.ec.europa.eu/greencitytool/topic/guidance/ Further readings relevant to the team's city reform project. These will be set according to the cities student teams have decided to focus on, and so cannot be set in advance. E.g., for Athens: <u>Athens Resilience Strategy for 2030</u> , pp. 10-170 (about 80 pages when graphs and photos excluded): https://www.academia.edu/34861574/Athens_Resilience_Strategy_for_2030_Redefining_the_city
Session 15	Automobiles, waste and recycling, pollution and the quality of life <i>How do EU directives affect waste in the city?</i> <i>What is the EU waste hierarchy?</i> <i>Wither waste management?</i> <i>Would a conscientious city include cars?</i>	<u>Required readings:</u> Halkos, G., Petrou, K. N., <u>Efficient waste management practices: A review</u> . MPRA Paper, pp. 1-30. (30 pages) <u>Recommended readings:</u> European Environment Agency, <u>Diverting waste from landfill: effectiveness of waste-management policies in the European Union</u> . Copenhagen, European Environment Agency, pp. 1-66. (66 pages) Ferreira da Cruz, N. et al., <u>Packaging waste recycling in Europe: Is the industry paying for it?</u> , pp. 298-308. (11 pages)
Experiencing Europe: "EU Member States Course Related Trip" Destinations: 2 countries (see selection in description below) – 7 days		
Session 16	Building resilient cities in the face of climatic and societal changes <i>What is a resilient city?</i> <i>Why do cities need to be resilient?</i> <i>Why is planning central to this?</i> <i>What are the alternatives?</i>	<u>Required readings:</u> Ahern, J., <u>From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world</u> , pp. 341-343. (3 pages) ARUP and Engineers Without Borders-UK, <u>Visions of a resilient city</u> , Resilient Cities 2012 Competition, London, UK, pp. 1-15 (15 pages). Desouza, K.C., Flanery, T.H., <u>Designing, planning, and managing resilient cities: A conceptual framework</u> , pp. 89-99. (11 pages) Lechner, S., <u>The concept of resilience: A European perspective</u> , pp. 16-19. (4 pages)

		<u>Recommended readings:</u> Carpenter, S., Walker, B. et al., From metaphor to measurement: resilience of what to what? Pp. 765-781. (16 pages) Collier, M. et al., Transitioning to resilience and sustainability in urban communities, pp. 21-28. (7 pages)
Session 17	Student presentations of city reform project <i>Designing your own sustainable city</i>	There will be no readings for this class: Student presentations.
Session 18	Smart or dystopian? Cities of our future <i>What is a smart city?</i> <i>Is smart sufficient?</i> <i>Will the cities of 2050 be places of development and freedom?</i> <i>Or will they be compartmentalized?</i>	<u>Required readings:</u> Albino, V., Berardi, U., Dangelico, R. M., <u>Smart cities: Definitions, dimensions, performance, and initiatives</u> , pp. 3-21. (19 pages) Caragliu, A., Del Bo, C., Nijkamp, P., <u>Smart cities in Europe</u> , pp. 65-82. (18 pages) Fünfgeld, H., <u>Facilitating local climate change adaptation through transnational municipal networks</u> , pp. 67-73. (7 pages)
Session 19	Final examination	City reform project final text due

COURSE-RELATED TRIPS:

- Franco-German History Trip: Alsace, France– 1 day

During the first course related trip you will visit two significant historical and cultural landmarks in Franco-German history. You will have guided tours and learn about how age-old controversies and catastrophes in the heartland of Europe are represented, the role of memorials in constructing a European identity, and the challenges of overcoming centuries of conflict and rivalry.

- Germany in Europe: Then and Now Trip: Berlin, Germany – 5 days

During the course-related trip to Berlin, you will continue to learn about the past and present of German culture, economy and politics of Germany. Historically this capital is a crucial place if one wants to understand the importance German politics has for the dynamics of European integration. In Berlin you will learn about the fall of the Berlin Wall, the reunification of Europe after the end of the Cold War, the challenges that emerged during the process of post-communist transition and about Germany's hegemonic position within the EU.

- EU Parliament Trip: Strasbourg, France – 1 day

During this one-day trip, which is thematically linked to the EU Institutions trip you will visit the European Parliament in session in Strasbourg, France. There you will attend the parliamentary session and meet a Member of European Parliament who will discuss current events and elaborate on the workings of the European Parliament.

- EU Institutions Trip: Brussels, Belgium and Paris, France – 7 days

This course related trip will take you first to Brussels, the EU's institutional power center. In Brussels you will have the opportunity to meet with not only EU officials but also representatives of national delegations to the EU, think tanks and NGOs, as well as academic experts. The EU institutions you will visit include the European Commission, the Council of the EU and the European Council and you will have a chance to discuss with those actors who draft, shape and finally take decisions in the European Union. You will continue to have first-hand experience of the EU by visiting



various agencies, institutions, and museums in Paris, you will meet French academic experts to discuss French culture, economy, politics and society.

- EU Funds in the Region Trip: South Baden, Germany– 1 day

This day trip will start with a meeting where an expert from the region will introduce you to EU's agricultural and structural funds and their implementation with examples from the region. Following the meeting you will visit a family farm that is typical for South Baden.

- EU Member States Trip - 7 days

Students choose 1 out of the three following course related trip options, e.g.:

- 1) Stockholm, Sweden; Warsaw, Poland/Prague, Czechia
- 2) Rome, Italy; Budapest, Hungary
- 3) Athens, Greece; Sofia, Bulgaria/Bucharest, Romania

The destinations may vary according to the topicality and nature of challenges of the EU and its integration process. The member states of the EU are still characterized by different state structures, economic ideologies, and cultural identities. This last course-related trip gives you the opportunity to choose between three different trip options. On these trips, you will learn about the current challenges of European integration. Experiencing the particularities and cultural diversity of these societies is essential in order to understand the variation in terms of domestic debates and national preferences when it comes to such important issues like, for instance, immigration, macroeconomic integration as well as European security.

Local excursions:

Session 5: Half day trip to Freiamt, a village outside Freiburg which has converted completely to renewable energy (solar, wind and wood).

Session 11: Half day trip to Vauban, Freiburg's model district of sustainable urban development, founded and built in the 1980s.

REQUIRED READINGS:

- Ahern, J. (2011). From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world. *Landscape and Urban Planning*, 100(4), pp. 341-343.
- Albino, V., Berardi, U., Dangelico, R. M. (2015). Smart Cities: Definitions, dimensions, performance, and initiatives. *Journal of urban technology*, 22(1), pp. 3-21.
- ARUP and Engineers without Borders-UK, (2012). Visions of a resilient city, Resilient Cities 2012 Competition, London, UK, pp. 1-15.
- Ashford, N.A., Hall, R.P. (2011). *Technology, Globalization and Sustainable Development. Transforming the Industrial State*. New Haven & London: Yale University Press, pp. 56-105.
- Auken, I., "Welcome to 2030. I own nothing, have no privacy, and life has never been better." <https://www.weforum.org/agenda/2016/11/shopping-i-can-t-really-remember-what-that-is/>
- Burns, C., Peter Eckersley & Paul Tobin (2020) EU environmental policy in times of crisis, *Journal of European Public Policy*, 27:1, pp. 1-19.
- Caragliu, A., Del Bo, C., Nijkamp, P. (2011). Smart cities in Europe. *Journal of urban technology*, 18(2), pp. 65-82.
- Delreux, T., Happaerts, S. (2016) *Environmental Policy and Politics in the EU*, Macmillan Palgrave, London, pp. 12-57.
- Desouza, K.C., & Flanery, T.H. (2013). Designing, planning, and managing resilient cities: A conceptual framework. *Cities*, 35, pp. 89-99.
- Elmqvist, T., Andersson, E. Frantzeskaki, N., McPhearson, T., Olsson, P., Gaffney, O., Takeuchi, K., Folke, C., "Sustainability and resilience for transformation in the urban century", *Nature Sustainability* (2), April 2019, pp. 267-273.

- European Commission, (2007). *Integrated Environmental Management: Guidance in relation to the Thematic Strategy on the Urban Environment*. Luxembourg, Office for Official Publications of the European Communities, pp. 1-29.
- European Commission (2020), Green City Tool, <https://webgate.ec.europa.eu/greencitytool/topic/guidance/>
- European Environment Agency, (2009). *Diverting waste from landfill: effectiveness of waste-management policies in the European Union*. Copenhagen, European Environment Agency, pp. 1-66.
- European Environmental Agency: Sustainability Transitions (for specific countries): <https://www.eea.europa.eu/highlights/climate-change-puts-pressure-on>
- Frey, W. (Ed.). (2011). *Freiburg: Green City: Wege zu einer nachhaltigen Stadtentwicklung / Approaches to Sustainable Urban Development*. Freiburg im Breisgau, pp. 30-68.
- Fünfgeld, H. (2015). Facilitating local climate change adaptation through transnational municipal networks. *Current Opinion in Environmental Sustainability*, 12, pp. 67-73.
- Haase, A., Bernt, M., Großmann, K., Mykhnenko, V., & Rink, D. (2016). Varieties of shrinkage in European cities. *European Urban and Regional Studies*, 23(1), pp. 86-102.
- Halkos, G., Petrou, K. N. (2016). *Efficient waste management practices: A review*. MPRA Paper, pp. 1-30.
- Helm, D. (2017). *Burn Out. The Endgame for Fossil Fuels*. New Haven and London: Yale University Press, pp. 224-240.
- Jabareen, Y. R. (2006). Sustainable urban forms: Their typologies, models, and concepts, *Journal of planning education and research*, 26(1), pp. 38-52.
- Jordan, A. & Camilla, A. (Eds.). (2013). *Environmental Policy in the EU*. Routledge, London, pp.367-387.
- Knill, C. and Liefferink, D. (2007). *Environmental politics in the European Union: Policy-making, implementation and patterns of multi-level governance*, Manchester University Press, Manchester, pp. 145-178.
- Lechner, S. (2015). The concept of resilience: A European perspective. *Joint Research Centre of the European Commission, The challenge of resilience in a globalised world, European Union, Brussels*, pp. 16-19.
- Morris, C. & Arne Jungjohann. (2016). *Energy Democracy: Germany's Energiewende to Renewables*. Routledge, London, pp.314-3 Morris, C. & Arne Jungjohann. (2016). *Energy Democracy: Germany's Energiewende to Renewables*. Routledge, London, pp. 314-378.
- Ponting, C. (2007). *A New Green History of the World: The Environment and the Collapse of Great Civilizations*, Random House, London, pp. 295-313.
- Reckien, D. et al. (2014). Climate change response in Europe: what's the reality? Analysis of adaptation and mitigation plans from 200 urban areas in 11 countries. *Climatic change*, 122(1-2), pp. 331-340.
- Rifkin, J. (2012). *The Third Industrial Revolution*, World Forum, Lille. <http://www.youtube.com/watch?v=naXLMlqlxdo> (75 minutes)
- Ruser, A., Machin, A., "Nationalising the Environment: is the Far-Right Turning Green?", *Green European Journal*, September 2019.
- Stadt Freiburg im Breisgau (2017): *Green City Freiburg. Approaches to Sustainability*, Freiburg: Freiburg Wirtschaft Touristik und Messe GmbH & Co. KG (brochure), pp. 1-28.
- Van Haute, E. (2016). *Conclusion, Green Parties in Europe*. Routledge, London, pp. 315-325.
- Wagenaar, H., & Wilkinson, C. (2015). Enacting resilience: A performative account of governing for urban resilience. *Urban studies*, 52(7), pp. 1265-1284.
- White, D. (2019). "Ecological democracy, just transitions and a political ecology of design", *Environmental Values* (28), 2019, pp. 1-22.

RECOMMENDED AND ADDITIONAL READINGS

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FURTHER RESOURCES:

For updates on environmental issues, it is recommended to visit the following websites:

- ARUP cities: <https://www.arup.com/expertise/industry/cities>
- Athens Resilience Strategy for 2030: [https://www.academia.edu/34861574/Athens Resilience Strategy for 2030 Redefining the city](https://www.academia.edu/34861574/Athens_Resilience_Strategy_for_2030_Redefining_the_city)
- BBC Science and Environment: https://www.bbc.com/news/science_and_environment
- BP Statistical Review of World Energy: <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>
- Energiewende Freiburg (in German): <https://www.fesa.de/>
- Energy Transitions Commission: <http://www.energy-transitions.org/>
- European Environmental Agency: <https://www.eea.europa.eu/>
- European Environmental Agency Publications: https://www.eea.europa.eu/publications#c7=en&c11=5&c14=&c12=&b_start=0
- European Environmental Agency Sustainability Transitions: <https://www.eea.europa.eu/themes/sustainability-transitions>
- Freiburg: Green City: <https://www.freiburg.de/pb/Len/372840.html>
- Gehl, Cities for People: <https://gehlpeople.com/>
- Greeninc.blogs.nytimes.com: <https://www.nytimes.com/section/climate>
- ICLEI. Local Governments for Sustainability: <https://iclei.org/en/Home.html>
- Institute for Applied Ecology Freiburg: <https://www.oeko.de/en/>
- International Energy Agency: <https://www.iea.org/>
- IRENA. International Renewable Energy Agency: <https://www.irena.org/>
- LSE Cities <http://www.lse.ac.uk/Cities>
- Next city: <https://nextcity.org/>
- Oxford Institute for Energy Studies: <https://www.oxfordenergy.org/?v=3a52f3c22ed6>
- Ramsar Gebiet Taubergießen (environmental education for conservation): <https://www.naturzentrum-rheinauen.eu/de-de>
- Routledge Explorations in Environmental Economics: <http://www.routledge.com/books/series/REEE/>
- Shell Scenarios: <https://www.shell.com/energy-and-innovation/the-energy-future/scenarios.html>
- Spreading Innovation on Cities: <http://archive.citiscope.org/>
- The Stern Review. The Economics of Climate Change. <https://www.cambridge.org/core/books/economics-of-climate-change/A1E0BBF2F0ED8E2E4142A9C878052204>
- UN 2030. Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>



- UN Habitat III. New Urban Agenda: <http://habitat3.org/the-new-urban-agenda>
- UN. The World's Cities in 2018.
<http://www.un.org/en/development/desa/population/theme/urbanization/index.shtml>
- Urban Age: <https://urbanage.lsecities.net/>
- Urban Resilience Network: <https://100resilientcities.org/resources/>
- World Energy Outlook. International Energy Agency: <https://www.iea.org/weo/>
- WWF *Ecological-Footprint*: https://wwf.panda.org/knowledge_hub/all_publications/ecological_footprint2/