

## Goal 7: AFFORDABLE AND CLEAN ENERGY

### INTRODUCTION – Why is this a Global Justice Issue?

Energy is the dominant contribution to climate change accounting for about 60% of total greenhouse gas emissions.

Most of the debate and discussion about energy has centred on switching from non-renewable to renewable energy and the divestment of fossil fuels and it's great that this is in the public arena now. There is a clear link between reducing the use of fossil fuels and the effects of climate change that our planet and its people will experience in the future. As of 2016 climate change was projected to push 100 million people below the International Poverty Line of \$1.90 by 2030. Fossil fuels have been used throughout history and since the industrial revolution the demand for fossil fuels has continued to increase. Environmental activists have been calling for an alternative to fossil fuels since the 1960s.

The exploration of 'Energy' as a theme is more nuanced than you would think however. The hidden costs of extraction of both fossil fuels and minerals needed for batteries for renewable energy on communities have not seen as much light of day.

From the human rights abuses in Cerrejón mine in Columbia where Ireland imports much of it's coal from to the lithium mining in Bolivia to the oil rigs in the Niger Delta to cobalt mining in the Democratic Republic of the Congo-there are few examples of communities actually benefiting from the profits made from the extraction on their own native land. People have had their homes, their way of life, their clean water supply and their basic needs taken from them not to mention the damage to their environment.

Countless conflicts have been instigated because of oil reserves, coal and gas. It's cited as one of the reasons for the Iraq War, the Sudanese conflict and the Niger delta for instance and continues to be the case today. Hopefully with the increase in the use of renewables, we will see a reduction in fuel fuelling war! However, we need to consider what we need to extract in its place, how we extract and whom we effect when we extract and at what cost.

Lithium is finite and it's estimated that the earth's supply of it will only last us 50 years if say all vehicles switch to electric.

Renewable energy needs to be thought through from start to finish. Batteries should be recyclable, so the valuable minerals therein—including cobalt and lithium—can become part of the **circular economy**. The **circular economy** is a process of minimizing waste and making the most out of finite resources to achieve sustainable development.

We need to put growth reduction at the heart of energy consumption. It is not good enough to just look at alternatives to non-renewables, we need to look at reducing our consumption and stop our growth at all costs way of living.

## STEP 1: Identify Target Group

Energy is a popular focus with students as it is one of the Green School Flags so the thematic focus might start here.

SUGGESTED CURRICULUM LINKS:

- Science
- Physics
- Technologies
- Home Economics
- History
- Geography
- Maths

## STEP 2: Pick a Global Theme

GLOBAL GOAL INDICATORS:

7.1 Ensure universal access to affordable, reliable and modern energy services.

7.2 Increase substantially the share of renewable energy in the global energy mix.

7.3 Double the global rate of improvement in energy efficiency.

SUGGESTED AREAS OF FOCUS:

- Human Rights and Fossil Fuels
- Extraction
- Environmental damage

Development Perspectives gives a good overview of SDG 7

<https://www.developmentperspectives.ie/SDGChallenge/InformationPacks/SDG%207%20Affordable%20and%20Clean%20Energy%20.pdf>

## STEP 3: Explore Theme-TEACHING AND LEARNING MATERIALS:

When exploring any theme, be sure to read for guidance on the approach:

- **WWGS How to Guide** <http://www.worldwiseschools.ie/wp-content/uploads/2019/09/GCE-How-to-guidebook-web.pdf>
- Teaching for sustainable development through ethical global issues pedagogy: <https://globaldimension.org.uk/resource/guidance-on-teaching-complex-global-issues-resource-for-secondary-teachers/>
- Exploring the issue of ESB and the Cerrejon Mine <https://developmenteducation.ie/feature/is-the-state-owned-esb-associated-directly-or-indirectly-with-reported-human-rights-violations-in-the-cerrejon-mine-in-colombia/>
- SEAI-Sustainable Energy Authority of Ireland Schools. SEAI have a schools programme with resources and interactive workshops. <https://www.seai.ie/community-energy/schools/post-primary-school/>
- SEAI is good for keeping up to date with the latest energy data by sector and usage: <https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/>
- Development Education.ie outline a debate on fossil fuels vs renewables but be sure to include human rights abuses outlined above in this debate.

- <https://developmenteducation.ie/feature/the-energy-debate-renewable-energy-cannot-replace-fossil-fuels/>
- The Royal Geographic Society introduces students to global distribution of natural resources and the international relations.
- <https://www.rgs.org/schools/teaching-resources/natural-resources/>

- **An Taisce (2015) The Case for Fossil Fuel Divestment**

This is a 15-page booklet making the case for educational and religious institutions, governments, and other organisations that serve the public good to divest from fossil fuels, as well as suggested further reading. There are 6 sections with the following headings: What is Fossil Free? What is Divestment? Why Divest? The Science. The Carbon Budget. Link: <https://developmenteducation.ie/resource/the-case-for-fossil-fuel-divestment/>

- Christian Aid Ireland is very good at campaigning on climate and tax justice issues. Here is their report on the human rights issues in Columbia-This case study would be interesting to explore with students and is a good example of our interconnectedness.

<https://www.christianaid.ie/sites/default/files/2020-02/Cerrejon%20Report.pdf>

- Ireland's renewable energy:

<https://podcasts.apple.com/us/podcast/irelands-renewable-energy-potential-with-dr-rory-monaghan/id1301985342?i=1000473148800>

- A closer look at Lithium mining in Bolivia complete with a great graphics on the extraction process useful for Science.

<https://www.nationalgeographic.com/magazine/2019/02/lithium-is-fueling-technology-today-at-what-cost/>

- The consequences of renewables:

<https://theconversation.com/lithium-is-finite-but-clean-technology-relies-on-such-non-renewable-resources-109630>

## STEP 4: Students Sharing Learning

Turning off lights in the school is an important first step but be sure that students know the bigger picture around taking action on Clean and Affordable Energy. Reducing the amount of resources we use up, the amount of stuff we buy and consume can help to ensure that this SDG is reached.

Here are some ideas on how students can share and put their learning in to practice:

- Mark Earth Day on the 22<sup>nd</sup> of April with a themed event in your school  
<https://www.earthday.org>
- Role-play a day without access to electricity
- Develop an energy descent action plan for your community
- Develop a vision for a world with fossil fuel free transport systems
- Put in entries for the Sustainable Energy Awards  
<https://www.seai.ie/events/sustainable-energy-awards/>

## STEP 5: CREATE CHANGE

### Action on a National and International Level

- Go to [www.Uplift.ie](http://www.Uplift.ie). This is a good platform to find out what grassroots campaigns are happening. You can also start your own campaign here too.
- **On the issue of energy:**
- -Take part in the EU campaign to consider <https://my.uplift.ie/petitions/electric-vehicles-are-not-safe-for-rainforest-2>
- -Take part in the 'Blood Coal' campaign and Urge the ESB to stop importing coal from Columbia <https://my.uplift.ie/petitions/blood-coal-end-the-esb-s-support-of-community-displacement-and-exploitation-in-columbia>
- <https://www.irishtimes.com/business/energy-and-resources/esb-called-out-for-contributing-to-human-rights-violations-1.4178686>
- -Find out what groups and how your local area is responding to issues like 'Fracking' or 'Fossil Fuel Divestment' by putting them in the search engine. New campaigns are starting and being updated all the time.
  
- Ask companies to think through the ethical considerations when producing batteries.  
<https://www.amnesty.org/en/latest/news/2019/03/amnesty-challenges-industry-leaders-to-clean-up-their-batteries/>
  
- Ask the EU to reconsider their minerals policy.