

Dr. Dörte Ohlhorst

# Raitenhaslach Reform Group Meeting 2020

Coal Exit Policies: Canada and Germany in Comparison

## Coal phase out policies

- Phasing out coal-based energy is an essential component of decarbonisation strategies to achieve global climate protection goals
- Coal is one of the main drivers of anthropogenic climate change and still accounts for more than one third of global electricity generation (International Energy Agency, 2019b)
- Many countries are pursuing strategies to increase the share of low-carbon and renewable energies
- Only few countries have strategies for phasing out coal
- Canada and Germany are among the countries actively tackling the phase-out of coal

## Coal phase-out as conflicting structural policy

Energy system transformation towards low-carbon supply systems goes hand in hand with redistribution effects

Regions linked to coal mining and energy production from coal are particularly affected

-> In both countries coal phase out goes along with conflicting structural policies that produce winners and losers

- ☺ Distribution (subsidies, feed-in tariffs) -> success stories
- :-> Regulation (Standards)
- :-/ Redistribution (taxes and fees; ETS - certificate trading etc.)
- ☹ Structural policy control (e.g. coal exit)
- > most conflictual

# Coal Phase Out Policies in Comparison

## **Commonalities of Canada and Germany**

- federalist systems
- domestic coal mining industries
- coal still plays a (major) role in energy supply
- both are experiencing a decline in coal consumption due to competition from cheaper fossil fuels (e.g. natural gas, shale oil) and renewable energies
- both countries aim to replace coal, but also oil and nuclear energy as far as possible by gas and renewables

# Differences of Canada and Germany

## Germany

- Coordinated market economy; concertation of interests as integral part of political decision-making
- Corporatist decision making procedures; economic relations are coordinated by trade unions and employers' associations
- Federalism: cooperative federal system; overlap of administrative levels that requires close cooperation
- large number of veto points
- Party system: congruent between the levels

## Canada

- Liberal Market Economy; coal policy typically strongly determined by market forces
- market-shaped coordination patterns; more short-term, project-related networks of relationships
- Federalism: differentiation system / dual federalism: more autonomy, lower need for cooperation between levels
- energy policy is subject to competing legislation & largely shaped by provinces and territories
- Party system: decentralized organization of the party and association system, different programmes of the political parties, depending on the province

## Research questions

- How do the differences in system and institutional structure influence the policy change towards an exit from coal in Germany and Canada?
- How do the different systems of Germany and Canada deal with conflicting structural policies that produce winners and losers?
- What can we learn from this for climate policy?

## Hypothesis

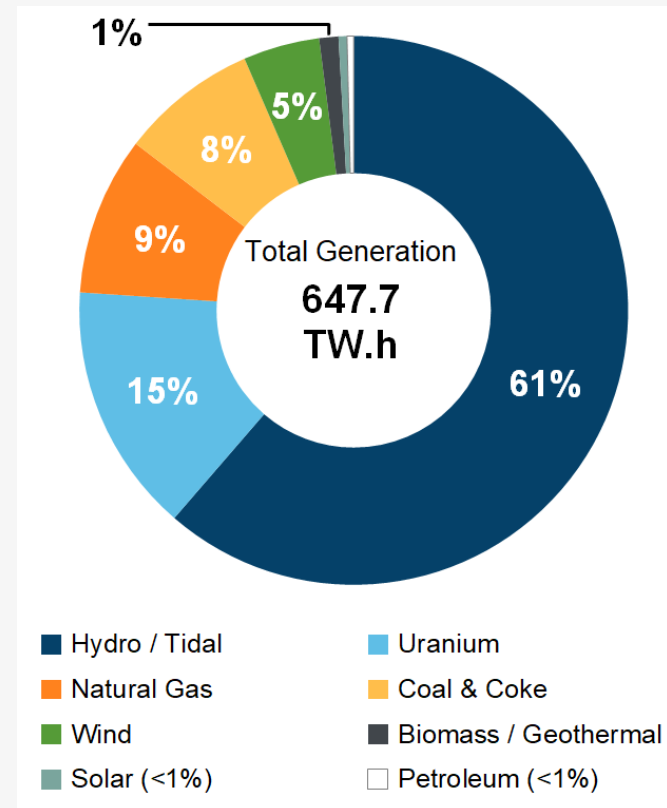
- The way and speed in which coal transitions take place are determined by democratic & federal structures and the relationship between the state and social groups
- **Canada** has a less cooperative approach to industrial relations; coal policy is strongly determined by market forces. There might be only weak mechanisms that can socially cushion the modernisation processes towards a coal phase out.
- **Germany** has close interdependence of interests between the state and the electricity industry; system provides room for veto play from subnational governments and unions;  
-> federal states, industry and unions have good opportunities of asserting their interests
- The nation state level has a relatively weak position in the coal phase-out policies of both federal countries

# Electricity Generation by Fuel Type 2018/2019



## POWER GENERATION MIX GERMANY 2019

Share of energy sources in German electricity generation





## Use of Coal in Canada



Regional differences in coal resources and consumption

- Saskatchewan, Alberta, New Brunswick and Nova Scotia are most dependent on coal; Largest coal producer: Alberta

Canadians' government adoption of climate change and renewable energy targets is based on the provinces' commitments to actually implement them

-> National climate and energy system transformation policy may meet with resistance from provinces closely linked to the coal industry

no institutionalised compulsion for multilateral policy coordination of the federal government and the provinces, but: interdependence of tasks is increasing

Multi-level coordination through voluntary, intergovernmental negotiations

## Alberta



late 1980s: coal plants provided over 80% of Alberta's electricity

2015: Coal power provided more than 50% of Alberta's installed capacity

Alberta New Democratic Party (NDP) government came to power in 2015, riding a wave of dissatisfaction with the Progressive Conservative Party (Vriens 2028)

Nov 2015: NDP committed to the 'Climate Leadership Action Plan'

Capstone components: coal phase-out by 2030 and economy-wide carbon price

By the end of 2023 Alberta will have little coal-fired electricity left

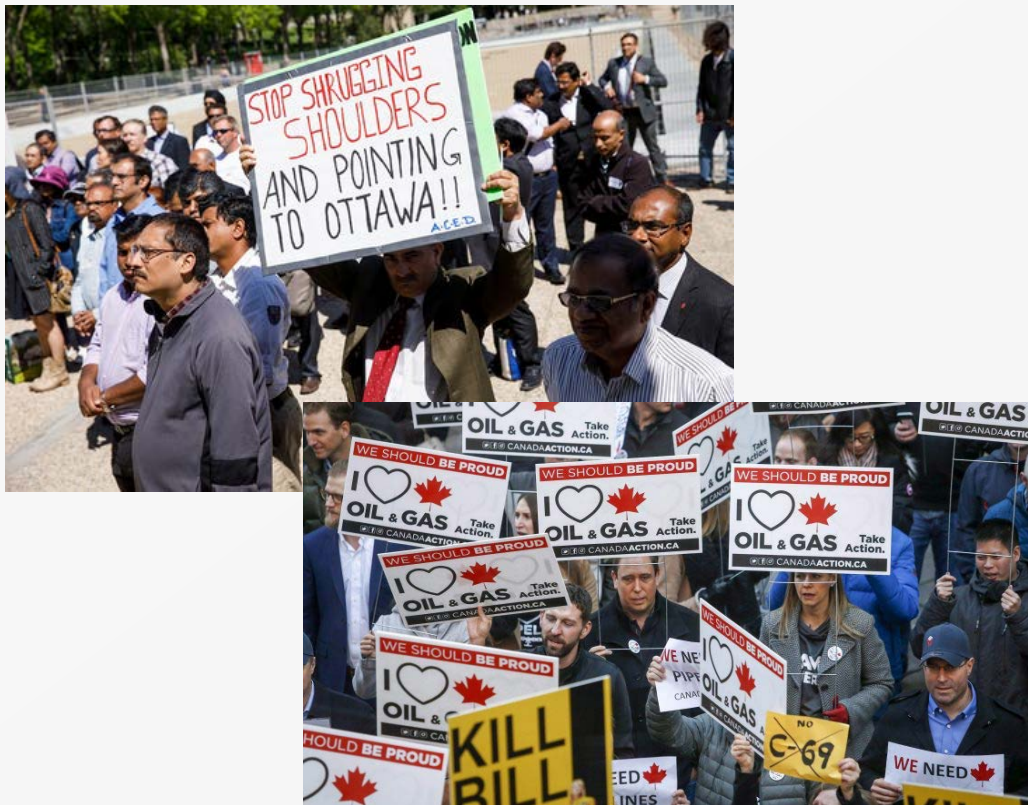
- six years ahead of the federally mandated coal phase-out deadline of December 2029

-> What were the success factors?

# Alberta



## Unemployed Alberta energy workers demand support from government



<https://edmontonjournal.com/news/politics/latest-job-numbers-peg-edmonton-as-having-among-highest-unemployment-rate-of-canadian-cities>

<https://edmontonsun.com/2017/05/30/unemployed-alberta-energy-workers-demand-support-from-government/wcm/707dc3e3-62ae-4069-8fba-8f3c8ff38b77>

<https://www.macleans.ca/news/canada/why-so-many-albertans-are-giving-up-on-their-country/>

## Success factors of Alberta's Coal Phase-Out Policy

Rise of New Democratic Party and dissolution of previous government allowed new stakeholders to gain influence

**Just transition program** (financed by industrial carbon taxes):

- 1.1 billion CAD payout to coal power companies for coal exit
- 45 million CAD to support coal workers and affected communities in transition

**Health costs** of poor local air quality associated with coal power estimated 3 billion CAD

**Abundance of cheap natural gas** provided accessible alternative to coal

Climate actions of NDP were linked with the aim at influencing domestic and international stakeholders to **allow cross-border oil pipelines**

-> province gov. was supported by labor unions, power companies, public health groups, environmental NGOs and the federal government (Vriens 2018)

## Federal Energy & Climate Policy in Canada



Conservative Prime Minister Harper (2006 to 2014): **low-ambition** approach and failure to act; **Canada withdraw from Kyoto Protocol in 2012**

2015: Trudeau elected as Prime Minister - strengthened "environmental coalition"-> **Trudeau signed the Paris Agreement in 2015**

**2015: Ontario** was the first region in North America to completely remove coal-fired power generation from its energy portfolio (Paris Agreement as driver)

Active lobbying by civil society organizations, driven primarily by public concern about **air quality** and its **impact on human health** (Harris et al. 2015)

2016: Pan-Canadian **Framework for Clean Growth and Climate Change**

-> Strategy for **phasing out coal production by 2030**;

Target: Reduce greenhouse gas emissions by 30% below 2005 levels

2018: **Task Force on Just Transition for Canadian Coal Power Workers and Communities**; **Trade unions were integrated** into the implementation process

## Powering Past Coal Alliance



- founded by **Canada and the United Kingdom** in 2017
- Aims at rapidly phasing-out traditional coal-fired electricity
- brings together all levels of government, businesses, and organizations
- Alliance members commit to achieving the phase-out in a **sustainable and economically inclusive** way, while **providing appropriate support for workers and communities.**

# Use of Coal in Germany



- **Carbon lock-in:** Coal traditionally was the most important backbone of the energy system; considerable investments in infrastructure and assets
- relation between government, firms and regions supported by political and social system: mineworkers' leaders typically are members of the Social Democrat Party ("SPD") (Rentier et al. 2019)
- steep **increase in renewable** energy in Germany from 1990 to 2017, pushed by policy from national and subnational level
- **not accompanied by a concomitant decrease in the use of coal:** interaction between Federal government, local government, unions, employees and firms that led to **subsidies, quota's and state aid** ("coal penny")
- 2019: ca. 131 million tonnes of lignite were still being mined mainly in four federal states: North Rhine-Westphalia, Brandenburg, Saxony, Saxony-Anhalt
- about 20,000 people are directly employed in the affected regions; indirectly about 40,000 further jobs are depend on these jobs

## Coal commission - The corporatist way



Germany was **at risk of missing its climate protection targets** for 2020

Government set up a **Coal Commission** in 2018: "**Commission for Growth, Structural Change and Employment**"

Government tried to find a balanced composition and to secure its influence at the same time

Commission was characterized by **strongly opposing views** of its members

concerns on the part of environmentalists to be outvoted in negotiations

**federal states** stepped in with **maximum demands**: no phase-out decision and compensation payments for the phasing-out of the power plants



# Fridays for future – initiated by a Greta Thunberg spilled over to Germany in December 2018



# Protest against deforestation and land grabbing peaks in 2018



RWE, operator of opencast mines, adhered to its plans of coal mining this ancient forest during the work of the coal commission

more than 10,000 people took part in protest actions in the area

Protest movement “Ende Gelände” started activities against the continued coal extraction near Cologne

## The negotiation process in the commission



**broad agreement** on one point: there must be a result in the form of a decision to **phase out coal**

Expectation that the Greens will be part of the next government. Without coal phase-out decision by then, the pressure on the near-term phase-out would have been even greater

**federal states** stepped in with **maximum demands**: no phase-out decision and compensation payments for the (regular) phasing-out of the power plants

October 2018: **verdict on the Hambach forest** to stop mining - the environmental associations would have left the coal commission if the coal mining in the Hambach forest had not been stopped.

- **clear turning point** in the commissions negotiations – federal states gave up their maximum demands

## Outcome of the negotiations



Result of the commission's outcomes **mirrors the conflictual power struggle regarding the use of coal**

- Coal phase-out in 2038
- environmental associations gave in to a compromise - a fruitless process would have been of less value to them
- compensation of €2.6 billion for RWE and €1.75 billion for Leag
- regions concerned will receive €40 billion as **compensation payments**

sums were massively criticized for being too high;

President of the Commission: sums are not too high - **structural change in the regions** must be encouraged

Recently, German government has presented its Structural Development Act (Strukturstärkungsgesetz) for coal-mining regions

# Conclusions

## Germany:

- civil society has played a decisive role - activists & environmental organizations are pushers in times of low ambition in climate policy - their strength is the public
- “fossil-nuclear” corporatism is becoming less important, more pluralist patterns of interest intermediation; new multitude of actors beyond incumbent power companies

## Canada:

- coal phase-out policy has chosen a more cooperative and coordinated approach in dealing with unions and organized workers' interests - although Canada is classified as an LME, it differs from the USA
- Coal policy *at the interface* between climate change and energy policy requires cooperation between national and sub-national actors

## Both:

- if, in addition to environmental and climate protection, attention is also paid to social and economic sustainability, the potential redistribution effects of energy transitions such as the coal phase out are more likely to be recognized
- The first small legislative steps have started a new “green” path dependency, the previous “fossil-nuclear” path dependency has been replaced

**Thank you for you attention**

