



# **EUROPE ENERGY CRISIS EXPOSES HIDDEN DANGERS: WE MUST LEARN FROM MISTAKES MADE**



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## MAC VAN WIELINGEN BACKGROUND

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Mac Van Wielingen is an investment management executive, entrepreneur, corporate director and thought leader in corporate governance and strategy. Mac's knowledge, expertise, and primary experience is the product of over 40 years in the financial and energy sectors.

Mac is currently Chair of the Board (2022) of the [Business Council of Alberta](#), an organization with the purpose of "making life better" for Albertans and all Canadians, where he is also a Founder, past Vice Chair and Director (2019-2021).

He is a founder and Chair of [Viewpoint Investment Partners](#) (VIP), a global, multi-asset, quantitatively focused investment management company.

He is Founder, Director (1989 - 2018), and Partner (Present) of [ARC Financial Corporation](#), the largest private equity investment management company in Canada focused on the energy sector with approximately \$6 billion of capital under management.; and a founder and former Chair (1996-2016) of [ARC Resources Ltd.](#), a leading Canadian oil and gas producer.

Mac also presently serves on the [Board of Directors for the Institute for Corporate Directors](#) (F.ICD) (2018-present) and is a member of the Chart the Future Committee sponsored by the ICD and TMX Group.

He is also presently serving on the Premier's Economic Recovery Council in Alberta.

Mac also served on the inaugural Board of Directors of [Alberta Investment Management Corporation](#) (AIMCo) in 2007 and served as Chair from 2014-2017; was a founding partner of the [Creative Destruction Lab - Rockies](#) (CDL-R); and Co-Founder and former Chair (2012-2020) for the External Advisory Group of the [Canadian Centre for Advanced Leadership](#) (CCAL) at the Haskayne School of Business at the University of Calgary. In 2019, he served on the advisory committee that created the Alberta Indigenous Opportunities Corporation (AIOC).

## THE RUSSIAN INVASION OF UKRAINE HAS CHANGED THE WORLD

We set off a trip wire which will have far reaching consequences.

The Green New Deal – the “Great Reset,” as it is often called – the politicized shift towards non-economic priorities, has led to a moment of “Great Regret” [[Calgary Herald: If We Are Not Careful the Great Reset Could Become the Great Regret](#)].

It is a dark moment in history, with a loss of human life, massive destruction of property and untold suffering, which is an undeniable source of regret for political and policy makers in Europe.

On a deeper level, it serves as a demoralizing reminder that even in modern times, the unthinkable can happen; that this type of risk exists.

But this does not mean an end or shrinking away from global decarbonization commitments.

Nor does it mean an end or a reversal of Environmental, Social, and Governance (ESG) aspirations.

What it means is the emergence of a more wholistic and pragmatic mindset. This will support a re-ordering of the priorities of energy and climate policy, and will catalyze reconsiderations of supply chain, trade policy, and market concentration risks. It may also change the dynamics of global climate leadership. Finally, it is very likely to alter the time frames of decarbonization at least for certain key countries.

## DEFENSIVENESS MAY DEFLECT CLEAR SEEING AND LEARNING

The response to the current crisis by some is that the shift away from hydrocarbons has been too slow; that we need to double down and accelerate the development of renewables. This has a certain amount of validity, but it is subtly defensive and may serve to deflect the full absorption of important learnings from today's crisis.

Another response is that the transition has become “bumpy.” I recently heard these exact words from a senior executive of the International Energy Agency (IEA), which hints of some form of denial bias.

Instead of bumpy, a more accurate description from the aeronautical world would be “extreme turbulence,” defined as “violently tossed about, practically impossible to control ... and may cause structural damage.” [Illustrated Dictionary of Aviation, Copyright 2005]

If we were to do an audit on the success or failure of energy policy today in most advanced economies, with a focus on Europe, I believe we would conclude that energy policy has failed. Europe is being violently tossed about and the turbulence is being felt throughout the world.

Canada and all countries of the world must be clear seeing and learn from the mistakes made.

## THE BASICS OF ENERGY POLICY HAVE BEEN NEGLECTED

One important criterion in assessing the success of energy policy is reliability; the availability of energy to meet demand as needed – without degradation or failure. [Sultan and Hilton, Electric Grid Reliability, 2019]. This is particularly relevant when “as needed” is during extreme cold or hot weather for space heating and cooling. It is also relevant to the ongoing competitiveness of businesses.

The reliability of energy in most countries within Europe prior to the Russia/Ukraine crisis was already showing alarming signs of vulnerability. Energy prices had increased by 40 - 50% largely because, strangely, the wind stopped blowing and back up capacity was lacking.

One important explanatory factor has been the under investment in oil and natural gas as post COVID-19 demand snapped back.

This is partly a direct consequence of government policy, for example, the 2019 banning of fracking in the United Kingdom.

Underinvestment is also a consequence of financial institutional policy, specifically the reluctance of major banks and pension funds to support hydrocarbon investment and infrastructure.

This has been exacerbated by the activist driven divestment trend where many major financial institutions exited their oil and gas investments.

The more responsible alternative was to stay invested and exercise influence to encourage high emitters to reduce emissions, sometimes described as “voice over exit.” But organized pressure overcame good governance, and also arguably sound investment strategy, and many institutions simply bailed out.

This decision was made easier by the fact that returns for oil and gas had been poor for a number of years.

Institutional investor and lender aversion to oil and gas was also given a boost by the International Energy Agency’s (IEA) proclamation last year that there is no need for further investment directed towards the development of new supply.

All of the above relates to reliability but overlaps with the second critical requirement of energy policy which is “security” of supply.

As Europe was phasing out base-load coal, zero-emitting nuclear power, and inhibiting or rejecting natural gas development – all for environmental reasons – they walked right into a massive energy security issue with an over dependence on a notoriously unreliable supplier.

This concentration of supply dependency on one supplier, Russia, became the trip wire.

Europe’s energy policy decisions, the mismatch of policy and markets, the resulting dependency on Russia, and Russia’s invasion of Ukraine all led to an energy crisis with resulting shocking price increases.

This gets to affordability, the third basic criteria for assessing the success of energy policy.

Affordability prior to the Russia invasion of Ukraine was already a concern with increasing energy prices and stubbornly high inflation in the post COVID-19 recovery.

Inflation is now running at levels not seen for about 40 years.

This is not all attributable to energy, but political and policy decision makers know too well that energy usage cuts across all activities within society, and accordingly higher costs will feed through the entire economy. Some of the impacts will be knock on effects and unexpected.

The price of fertilizer derived from natural gas and produced in large proportions in Belarus and Russia has gone vertical. Similarly for diesel needed to fuel farm equipment, and propane required within farming operations.

Combined with the direct loss of agricultural products from Russia and Ukraine, the result will be a horrific increase in food prices. The United Nations Food and Agricultural Organization (FAO) food price index, a measure of monthly change in international prices of a basket of food commodities jumped in March to the highest level since its inception in 1990.

This will have serious social impacts throughout the world, notably in low-income countries. As the head of the International Monetary Fund (IMF) recently said, “War in Ukraine means hunger in Africa.”

All these factors combine to work against affordability for all consumers of energy and food in the world. These realities will also work to undermine global financial and political stability.

The IMF also noted that about 60% of low-income countries are now at high risk of, or already in debt distress, compared with fewer than 30% in 2015.

Much of the affordability distress and related knock-on effects link directly or indirectly to the turning of a blind eye to the basics of energy policy; the essential importance of reliability, security, and affordability.

In our audit of success or failure of energy policy, or of any strategy or set of policies, ultimate outcomes are determinative. It is difficult to argue against the conclusion that energy policy in Europe has failed.

Europe leaders did manage to move climate ambitions and related regulatory frameworks forward, but policy failed in not meeting the essential basics.

Certainly, this is the case for Germany which was among the world’s climate policy leaders. It is also true of the United Kingdom which only months ago hosted, with great fanfare, the COP 26 Climate Conference in Glasgow.

Many other advanced economies had been turning in the same direction as Germany and the UK, notably the United States under the Biden administration, whose first decision was to cancel the Keystone pipeline. The volumes going through Keystone would have more than offset supplies imported from Russia. Ironically, the rejected Canadian barrels represent the most reliable supply of oil in the world.

## **THE UNDERLYING PROBLEM IS NOT CLIMATE AND ESG ASPIRATIONS**

Importantly the underlying problem of failed or sub-optimal energy policy in Europe, and many countries of the world, is not Climate and ESG aspirations.

The problem is that Climate and ESG became untethered with reality.

We started to act as if there was one single outcome that policy must satisfy and that was reducing emissions. We neglected the basics of energy policy and ultimately other essential societal aspirations.

These basics can all be considered within the broad category of Economics.

Reliability and security of supply can be understood through the lens of Economics; through the interface of costs and prices, with impacts on affordability, along with other Economic fundamentals.

The reality is that the Economics of energy impacts everybody – all stakeholders – in different ways:

- Affordability is critically relevant to families and households;
- For business, small and large, it is relevant to survivability and competitiveness;
- Employees within the energy sector are concerned about stable income;
- Indigenous Peoples aspire for economic autonomy through resource ownership;
- Investors are concerned about appropriate returns on dollars at risk;
- Lenders worry about getting loans fully serviced and repaid;
- Corporate leaders have responsibility to allocate and preserve capital (society's savings); and
- Government needs tax revenues to fund all non-economic societal aspirations, like health care and education, and in fact, the energy transition itself.

The category of Economics represents a set of needs and aspirations that are basic to all stakeholders but are not explicitly included in the Climate and ESG framework.

At a deeper level, there is more within Economics that needs to be understood.

I quote Greek philosopher and poet, Hesiod, from 800 BC, who some argue was the world's first economist:

*"Labor, materials and time have to be allocated efficiently."*

He viewed time as a resource that had to be understood, managed, and allocated efficiently. If I could modify his comments, I would add risk:

*"Labour, materials, time and risk need to be allocated efficiently."*

The capacity to absorb and withstand risk is a limited resource.

A pragmatic grounded understanding of time frames and risk, within which commitments are made, is foundational to Economics and getting the basics right.

## THE CONUNDRUM OF TIME FRAMES AND RISK

In the world of ever accelerating time frames within climate policy, the urgency to reduce emissions took priority. The result is now a loss of credibility, certainly with respect to government and institutional leadership in Europe, and a resulting reduced probability of meeting mid and long-term decarbonization goals.

Increasing use of coal for power generation in Europe is a reversal that may have significant staying power as it will take years to wean off Russian gas.

We must learn from this situation otherwise the Net Zero 2050 goal will become a mirage, as you move closer to it, it will move away.

The current energy crisis in Europe is the first major “in your face” example of implementation risk on the long road to decarbonization.

The risk demonstrated in the current crisis is the cumulative effect of neglecting the basics of energy policy. Energy policy was subsumed and dominated by climate policy, when in fact arguably it should have been the other way around. What is the most important: the reliability of energy for heat within a cold winter; security of supply and avoiding extreme disruption caused by geo-political events; avoiding the affordability shock of runaway energy prices, and consequent social and political instability; or meeting emission targets as part of long term decarbonization commitments? The answer is that each of these factors is of essential importance, but the first three questions relating to reliability, security, and affordability have been somewhat neglected.

There are other major implementation risks in the energy transition that seem neglected or at least are not being discussed publicly.

## THE RISK OF WEAK INTERNATIONAL COOPERATION

The IEA state in their 2050 Net Zero Roadmap report that the 2050 goal would be pushed out 40 more years to 2090 if international cooperation is weak.

We should all be talking about this.

Political experts have been warning about the weakening of international cooperation for years.

The word “weakening” now has a similar feeling as “bumpy” as a descriptor of current realities. Both are gross understatements.

The assumption of strong international cooperation embedded in the IEA 2050 Net Zero Roadmap is hard to reconcile with current global regional conflict and war in Europe, and the obvious inherent tendency for nations to be anchored in their own interests.

As evidence of international cooperation when needed, look no further than the international response to the COVID pandemic, where international cooperation was deemed essential, but revealed itself as weak.

To quote the Secretary General of the United Nations:

*“The pandemic was a clear test of international cooperation, a test we essentially failed; where affluent countries were hoarding vaccine supplies.”*

How can the world, how can Canada, rely on the assumption of sustained strong international cooperation upon which the 2050 Net Zero transition plan is based?

This one assumption, if incorrect, changes everything in the outlook for the energy transition.

## THE RISK OF INADEQUATE INVESTMENT LEVELS

Another real-world risk that has the potential to change everything is capital investment levels given the uncertainty of policy integrity, durability, and regulatory process in most countries of the world.

The energy transition is substantially policy driven – not market driven.

Investing in green infrastructure offers relatively low returns, uses high levels of leverage, and is amortized over long time frames.

The economics to incentivize this type of investment requires belief in policy effectiveness and durability.

This is a huge risk which will work against the formation of capital needed to successfully implement the energy transition.

More specifically, long time delays, intensely bureaucratized process, inter-governmental disharmony and politicized decision making are realities within most countries of the world ... including Canada.

Our history in Canada, even as an advanced economy, is in fact a demonstration of the risk of discordant and inefficient policy and regulatory process.

Maybe Canada can do much better to move toward regulatory efficiency and excellence, but the deeper underlying risks are global in nature.

The amount of capital investment needed to enable the global energy transition is massive – approximately \$5 trillion per year by 2030.

Based on Carbon Action Tracker this is an eight-fold increase over the 2020 level of \$640 billion USD. The annual increases needed are \$436 billion USD through to 2030, which is 13 times greater than the historic increase over the past five years.

This is expected to come predominantly from the private sector.

Compared to recent year investment levels, the private sector needs to accelerate investment 23 times faster to meet 2030 targets.

Emerging and developed countries – who represent over two-thirds of global emissions – face particularly serious hurdles in attracting investment.

Debt burdens and interest rates are on the rise. Many countries, as previously noted, are in or near what is termed debt distress. Most lack an effective regulatory environment, most suffer from weak governance and political instability, and most face a significantly higher cost of capital to account for risk.

International cooperation and capital investment requirements are examples of major risks that could change everything in the outlook for the transition.



## THE RISK OF CRITICAL MINERALS SUPPLIES

There is a third major implementation risk that must be acknowledged. This is super charged demand for critical minerals used in clean energy technologies combined with historically slow supply side development and concentration risk among suppliers.

Expected demand growth for minerals needed in the energy transition is illustrated by the typical electric car which requires six times the mineral inputs of a conventional car.

Another example is onshore wind plants which require 9 times more mineral resources than a gas fired plant of the same capacity.

To quote the IEA, the transition to clean energy means a shift from a fuel-intensive to a material-intensive system.

A particular risk in the supply response is historically long project development lead times. The IEA calculates that it has taken on average over 16 years to move mining projects from discovery to first production.

Further, much of these resources are concentrated in a small number of countries with China and Russia being dominant suppliers.

China specifically is the leading processor of copper, lithium, nickel, cobalt, graphite, and rare earth elements all of which are needed to produce an electric vehicle. China processes more than half of the worlds lithium and cobalt and more than 80% of rare earth elements.

The electrification of transportation and the push for renewable energy is not a straight forward path towards supply chain and geopolitical security.

Europe and other western nations face the risk that they may replace their dependence on unreliable sources for hydrocarbons with a new dependence on unreliable sources for critical minerals.

The diversification of geo-political risk from hydrocarbons to minerals probably makes sense but it is simply not true that wind, solar, and electric vehicles will lead to geo-political supply chain security.

## NARROWNESS OF POLICY DRIVEN DECARBONIZATION

The narrowness of the decarbonization imperative has had a blinding effect with devastating consequences that are still unfolding.

Energy policy in Europe neglected the basics of reliability, security, and affordability and created a mismatch between ambitions and realities.

The danger of neglecting economics and the basics of energy policy have been exposed.

Priorities will get reordered and policy in some countries such as Germany will be radically overhauled.

The “Great Reset” encouraged narrowness, an incomplete understanding of all that is essential to society, and a lack of pragmatism. The impacts were amplified through extreme politicization. The result is untold damage.

It bears repeating: the harm was not in the underlying ideals and aspirations. The harm was in the narrowness and politicization of these ideals, which led to a degree of blindness to other essential and practical realities.

In addition to energy security, which has now come into focus, there are other major energy transition implementation risks: the risk of sustained weak international cooperation, relatively weak capital investment levels globally, and a supply and demand mismatch for the essential minerals needed in the energy transition.

The consequence of these major risks are many, but all will most likely extend the time frames for decarbonization and net zero.

## **WHAT ABOUT CANADA? WHAT IS OUR PATH FORWARD FOR ENERGY AND RESOURCES GIVEN WAR AND A GLOBAL ENERGY CRISIS?**

The crisis in Europe will impact all countries of the world through energy and food price inflation.

Those countries that supply energy products to other countries, who are in the energy development business, such as Canada, will be impacted in certain unique ways.

Also those countries that have a geopolitical alignment with Europe will be impacted or involved in unique ways, again such as Canada.

Thirdly, those countries committed to decarbonization and the highest environmental standards will also have unique impacts, again such as Canada.

All of this creates circumstances and complexity specific to each country. An added complexity for Canada is that our hydrocarbon resource is situated primarily in the west, versus the distribution of political influence and decision making situated primarily in central and eastern Canada. This creates the risk of regionalized politicized bias in national policy which is a governance issue unique to Canada.

First and foremost Canada must take a broad, comprehensive, and long term view of our essential aspirations and not succumb to narrowness and rigidity in pursuing any singular desired outcome. This was the central point in my report written for the University of Calgary, School of Public Policy: [\*What is the Future of Canada's Energy Sector? Emerging Themes of an Optimal Pathway.\*](#)

Canada needs to encourage and model a strategic mindset that is inherently focused on what is essential to our national interests, and all that is essential must be part of strategy. This is a very different mindset than the narrowness of focusing on any one desired outcome.

Within energy policy – reliability, security, and affordability – are all essential outcomes that must be solved for, as well as emissions and environmental impacts. We must learn this lesson and not forget it. Yes – this is complex and does not lend itself to simplistic narratives – but this is reality.

As the world moves forward, we can expect the oft-referenced goal of “clean” energy to be replaced with “clean and secure” energy. Adding the word secure marks a much needed shift to a broadened and more pragmatic mindset. For completeness, the descriptor “affordable” should also be added, particularly at this time as we navigate through high inflation.

Secondly – we must be realistic about time frames.

We may be able to make great progress towards net zero within our own country, but it is unrealistic to assume this will occur globally given the myriad of major factors outside our control.

We also must be realistic about time frames within our own country and make sure that we don’t sacrifice our essential interests to the well-intended Europe inspired 2050 net zero mantra, when we know that the global 2050 goal may well be out-of-reach.

This has important implications; notably, investing more in climate adaptability and also new and advancing technologies that can serve both Canadians and all people of the world.

Another critically important implication is to decarbonize our own hydrocarbons as much as possible to increase long term attractiveness and competitiveness in all markets we serve, knowing that there is a serious likelihood that demand for our hydrocarbon products will extend well beyond 2050.

Third, we must expand our view of ourselves to become more global. We are a large country with a relatively small domestic market. Global demand for energy, minerals, food – all resources – will continue to grow and Canada is exceptionally well positioned to serve those needs.

The tragic invasion of Ukraine by Russia created a geo-political rupture that demands a deep need for realism. The world is now in need of more energy, minerals, and food, and wants it from democratic and secure suppliers that enhance geopolitical stability.

Canada has a profound responsibility in this new reality, as one of the very few places on earth that can produce much more energy and food than we require. Meeting this responsibility will require the embrace of a new vision.

This vision is for Canada to become **the leading responsible, reliable, innovative, carbon, and ESG friendly, global supplier of energy, mineral, and agricultural products for the benefit of all Canadians and all people of the world.**

Expressed in briefer form, the opportunity is for Canada is to become **the trusted energy and resource supplier of the world.**

This is not a new “just created” vision tailored for the moment. Its potential has been recognized by many others and is frequently expressed.

The impediments for realizing this vision are largely political and regulatory. Expressed more explicitly, the impediments are internal political discord and regulatory disfunction.

Canada’s sad reality is that these impediments have extracted a huge cost, not just for ourselves but also our friends in Europe who are now in need, and all people of the world in need of clean, secure, and affordable resources.

There are many examples to support this view, notably our inability to execute on an LNG strategy.

We have an abundance of the greenest natural gas in the world based on super low emission electricity and world-leading methane regulations. We still could not execute on an LNG strategy. U.S. LNG exports have grown from 28 bcf in 2015 to 2400 bcf in in 2020. [U.S. Energy Information Agency]. In Canada, our one LNG facility is still not on-stream. Further, we are infrastructure constrained to move more gas to the U.S. which could be exported to Europe to help in the crisis.

There is generally a large gap between Canada's opportunity and its ability to execute. This is Canada's biggest challenge and risk. We have so much to offer but there is a serious question as to whether we can deliver.

This is a practical reality relevant to Canada that cannot be wished away.