

March 13, 2024

Via Email To:

Honourable Steffi Lemke, Minister of Environment, Nature, Conservation and Nuclear Safety

[REDACTED], Ministry for the Environment, Nature Conservation and Nuclear Safety

[REDACTED], German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Dear Minister Lemke, [REDACTED],

The following is a public comment submission provided by CarbonAi Inc. to the draft ordinance amending the 36th Ordinance (UERO) of the Federal Emission Control Act. As the lead or supporting partner behind 20 of 70 registered projects on the UERO database, representing 29% of all registered projects, we are likely the organization most affected by the draft ordinance eliminating UER measures.

We hope that our comments, observations, and suggestions will be given proper consideration. We look forward to the opportunity to present our arguments to legislators in committee, either virtually or in person.

Regards,

[REDACTED]

[REDACTED]
Chief Carbon Officer
CarbonAi Inc.

Executive Summary

CarbonAi believes that the proposed amendment to eliminate the use of UERs in Germany is misguided and will have important negative impacts if it proceeds as planned. One of the most important impacts is removing one of the only currently actionable and most effective price signals catalyzing methane mitigation and oil & gas decarbonization in developing countries. Second, given that most registered and proposed projects are based in countries that have become some of the largest suppliers of energy to Germany since the war in Ukraine, we think Germany risks permanent and significant reputational damage regarding its commitment to international climate action. Finally, we think that Germany is not fully comprehending the stranded asset risk it is creating for dozens of projects that have been in development for years, but that will now be abandoned.

We propose a series of recommendations that could improve and enhance the UER program (best case), to limited changes that we think will address the most important flaws in the proposed changes and limit the damage (worst case).

Background

Under the Upstream Emission Reduction Ordinance of 22/01/2018 (UERV), transport fuel distributors in Germany with obligations to reduce the greenhouse gas (GHG) intensity of their transport fuels under the European Fuel Quality Directive are granted the ability to meet up to 1.2% of their GHG-reduction obligation with Upstream Emission Reductions (UERs). Under the current UERV, obligated parties are permitted to use UERs as a compliance mechanism through the 2026 compliance period.

On Feb 21, 2024, an ordinance amending the thirty-sixth ordinance implementing the Federal Emission Control Act (the “Amendment”) was introduced in the German Bundestag that would prohibit the use of UERs by German companies, effective 15 months following passage of legislation. This sudden and unexpected development, without any advance notice or consultation with key stakeholders, is extremely disappointing, especially given the severe negative environmental and reputational consequences.

About CarbonAi

CarbonAi Inc. (“CarbonAi”) is a developer of large-scale greenhouse gas (GHG) reduction projects and software tools that ensure the integrity of GHG reduction data and support digital measurement, reporting and verification (D-MRV) of GHG reductions. Based in Calgary, Canada, with representative offices in London, Dubai and Lagos, the company develops large-scale GHG reduction projects in oil and gas operations in Africa and the Middle East, primarily flare gas conservation and methane mitigation projects. CarbonAi’s

leadership team has managed the execution of over 60 unique GHG reduction projects, which have collectively reduced, removed, or avoided the equivalent of over 17 million tonnes of CO₂ reductions. This includes planning and delivering one of the largest methane mitigation programs ever executed in the world, involving the retrofitting, removal, or replacement of 12,500 emitting devices with 42 oil & gas companies in Canada. The company has successfully delivered one project under the German UER program (Juno Flare Gas Conservation Project, Project #: UIAR, 120,000 tonnes CO₂e per annum), with 19 additional projects from 6 countries pre-approved for development by DEHSt, with several of these currently under construction. **These 19 projects have the potential to generate at least 2.9 million tonnes CO₂e per annum, reductions that would not happen if DEHSt eliminates the UER program.**

Our corporate motto at CarbonAI is “Driven by Impact” and a key reason that we have focused our GHG project development team on the German UER market is that we believe it is one of the best designed markets and carbon price signals to drive real, additional, immediate, large-scale methane reductions in the areas that need it most: developing countries in the Global South that lack finance, technical expertise and domestic carbon price signals, yet possess some of the best opportunities for immediate large scale methane reductions. Coincidentally, many of these same countries, like Egypt, Nigeria, and Iraq, have become some of Germany’s most important suppliers of oil, fuel products and natural gas since the Russian invasion of Ukraine.

The following presents our key arguments as to why the German Government should reconsider this decision, as well as our suggestions for alternate approaches.

Negative Implications of Proposed Elimination of UER program

There are several major issues created by the proposed early elimination of the UER program. We will focus our comments 4 key issues:

1. Delay critically important short-term GHG reductions, removing the most effective and actionable price signal for methane mitigation and oil & gas decarbonization
2. Undermining German international commitments and leadership
3. UERs decarbonize fuels being used today and for the near future in Germany
4. Stranded asset and market confidence impacts

1. Delay critically important short-term GHG reductions, removing the most effective and actionable price signal for methane mitigation and oil & gas decarbonization

According to the IPCC, to avoid the most damaging effects of climate change, global GHG emissions must peak prior to 2030. It is therefore critical to take the most immediate, effective, proven, and affordable measures to reduce GHG emissions. GHG reductions and

removals that are delivered today are more valuable than those delivered two, three or ten years from now and will continue to warm the planet not just this year, but every year that it is in the atmosphere, with a compounding effect. Given its amplified short-term climate forcing impacts, methane mitigation is the most important measure we can implement.

Methane is a highly potent GHG, with up to 86 times the global warming impact of CO₂ over its first twenty years in the atmosphere (20-year GWP). This means that for every tonne of methane that you prevent from reaching the atmosphere, it is equivalent to reducing up to 86 tonnes of CO₂. Flaring of gas in developing nations is a major source of methane. According to the World Bank Flare Gas Report, converted to Tonnes CO₂e:

- 238 flares in Africa generate about ~10 million tonnes of CO₂e **per day**
- 682 flares in the Middle East and North Africa generate ~21 M tonnes of CO₂e **per day**

With the disappointing outcome regarding Article 6 of the Paris Agreement (“Article 6”) at COP 28, the lack of operationalization of the Article 6 mechanisms means that vital climate finance tools that are required in developing countries right now are not yet available or deployed at scale. The UER program has proven to be highly effective in helping bridge this gap, mobilizing capital into regions where GHG project execution has historically been challenging. This has led to real, provable, measurable permanent GHG reductions that would not have taken place in the absence of UER-based financing. To date, 70 GHG reduction projects have been developed or have the potential to move ahead due to the German UER program.¹ Of these projects, at least 50 are flare gas conservation and usage projects.

Of CarbonAi’s 20 current registered projects with DEHSt, all of these involve the conservation of previously flared or vented gas in one form or another. 13 of these projects use the CDM AM009 methodology. An important principle to understand with this methodology is that it does not account for uncombusted methane in the baseline condition of these projects. Given that virtually all of the flares that we eliminate or minimize in our projects are old, open flares with poor combustion efficiency, a significant percentage of actual emission reductions from our projects are not credited in our projects. **This means that for every tonne credited in the German UER program from flare gas conservation, there is an additional 30-100% positive climate benefit delivered to the Environment.** These are real reductions and incremental impact that Germany is catalyzing.

2. Undermining German international commitments and leadership

¹ Projects registered on the DEHSt UERV registry: https://www.dehst.de/EN/climate-projects/UERV/uer-project-database/uer-project-database_node.html

Germany has been a global leader in multilateral climate change initiatives including:

- Reducing global greenhouse gases under the Paris Agreement of 2016
- Provide for climate finance under the \$100B pledge
- Reduce global methane reductions, such as under the:
 - Zero Routine Flaring Initiative
 - Global Methane Pledge

On December 22, Germany pledged 7 million Euro through UNDP's Climate Promise: From Pledge to Impact to support developing countries in achieving the goals of the Paris Agreement.² Countries included in this pledge include Egypt, Ghana, Nigeria, all of which have been host countries for projects that are currently registered or pre-approved for UER projects on the DEHSt registry. Areas of action under the Climate Promise include climate finance, carbon markets, energy, net zero pathways, all of which are areas that are supported directly by investment into host countries through the financing of UER projects.

The nations in which many UER projects are located are developing nations for which oil and gas is one of the few sources of socio-economic development. Currently, the German UER program acts as a de facto carbon price in these countries, none of which have a domestic carbon price system in place. Further, due to economic instability, the cost of capital in many of these countries makes it very difficult to access the capital required to finance large-scale GHG reduction projects. In this context, the German UERV program has provided an important, actionable carbon finance price mechanism that is building capacity and trust in developing nations, and an openness to the energy transition. Abrupt cancellation of the UER program will run counter to government policy of supporting global GHG and methane reductions in developing countries. It will also call into question Germany's commitment to collaborative, multilateral action and the enactment of Article 6, and more importantly, North-South commitments to help support the energy transition.

3. UERs decarbonize fuels being used today and for the near future in Germany

In March 2023, Germany and the European Union reached a deal that would delay the planned prohibition of the sale of new internal combustion engine (ICE) cars beyond the originally planned 2035 effective date.³ In December of 2023, Germany abruptly shelved an electric vehicle subsidy.⁴ Volkswagen Group, one of Germany's most important employers and one of the world's largest auto manufacturers stated in its annual filing this week that,

² <https://climatepromise.undp.org/news-and-stories/germany-pledges-additional-7-million-euro-help-countries-achieve-goals-paris>

³ <https://www.qcintel.com/article/germany-commission-agree-e-fuel-future-italy-awaits-move-on-biofuels-12743.html>

⁴ <https://www.qcintel.com/article/ev-sales-slide-as-subsidies-slashed-lose-ground-to-ice-cars-21594.html>

“While extensive investments are being made in the expansion of electric mobility, **highly competitive, efficient, and attractive models with combustion engines will remain part of the product range during the transition phase. Improved and new plug-in hybrids complement the range in many markets.**”⁵

These three citations point to the fact that the transition to electric mobility is underway, but will likely take longer than expected, meaning that decarbonizing the hydrocarbon-based transport fuels of today remains important. Germany is almost entirely dependent on imported oil and gas. In 2022, Germany imported 88.2 million tonnes of crude oil (almost 98% of its oil consumption). In total, 31 countries supplied crude oil to Germany.⁶ To stay on course for German GHG commitments 2050 targets will require decarbonization of the upstream oil supply as quickly as possible. Many of the new sources of supply are in countries in which the capital and expertise required to decarbonize oil and gas are scarce. **The German UER program is the single most effective mechanism by which to mobilize the required capital and expertise to deliver upstream emission reductions in these jurisdictions.**

4. Stranded asset and market confidence risks

Any policy that reduces the certainty of financing for investors will drastically effect the willingness of project financiers to invest in emission reduction projects and to trust the certainty of government policy. The proposed amendment would disrupt, delay or completely halt the development of large-scale GHG reduction projects that are currently in progress and that would be funded (in whole or in part) by revenues from UERs. Typically, these projects have a project development period of 12 to 18 months, but often take an additional 6-12 months in developing countries, given the need to educate and build trust on climate finance. If Germany enacts the proposed changes, likely only 2 or 3 of CarbonAi’s 19 currently registered projects would proceed. It would also terminate the 10 or so other projects in development that are not yet registered.

The proposed elimination of the UER program will undermine investor confidence and increase perceived risk for energy transition investments. Many GHG-reduction and clean energy investment decisions are predicated on policy certainty. It is imperative that Germany maintain predictability and stability in its climate legislation and regulation to retain investor confidence to pursue decarbonization investments. At such a critical juncture, stakeholders must be able to make investments trusting the government will uphold the regulatory environment that pushed final investment decisions over the line.

⁵ <https://www.volkswagen-group.com/en/press-releases/volkswagen-group-delivers-robust-2023-results-performance-programs-and-record-number-of-new-product-launches-stabilize-future-development-18279>

⁶ <https://www.trade.gov/country-commercial-guides/germany-energy>

This decision would reinforce investor concerns about “stroke of pen risk” in which previously un-signalled policy changes are enacted hastily, removing important policy and market certainty, on the basis of which investment decisions have been made, and placing those (and future) investments in jeopardy.

Recommendations

We strongly believe that part of the wisdom of the German FQD suite of compliance options is that it combines the need to deliver immediate reductions that align with when the emissions are occurring (UERs), while supporting the developing and scaling of biofuels and electrification of tomorrow.

Ideal Solutions

We understand that one of the underlying issues in Germany is the dumping of questionable biofuels from Asia that is impacting German biofuel producers. If that is real issue, instead of targeting UERs, the German government should limit or eliminate sources of questionable biofuels, or subject them to additional scrutiny. To ensure that there is no impact on fuel prices, instead of eliminating UERs, we would propose that they improve, extend, expand the UER program.

As it pertains to UERs, we would instead suggest the following approach:

1. **Improve.** The German UER program imposes some of the most robust quality standards in the world. However, there is always room for improvement. We would suggest that quality and integrity of projects could be strengthened by taking advantage of new digital measurement, reporting and verification (DMRV) technologies to mandate real time monitoring and increased transparency. If there are continued concerns with projects originating in China, Germany could also limit UER projects to countries that supply Germany with oil, fuel products or natural gas.
2. **Extend.** Given the continued delay in the operationalization of Article 6, the German UER program provides an important actionable carbon price signal for immediate decarbonization. To continue to fill this gap, we suggest that the program be extended to 2028 or 2030, as originally contemplated.
3. **Expand.** Given the important, immediate climate impacts that the program is having, we would suggest that Germany seek to expand the portfolio weight of the program to greater than 1.2 % of compliance obligation. Given the positive climate impact multiplier of methane mitigation projects, this would allow Germany to increase its immediate climate impact.

Minimum requests

At a minimum, we request that to avoid stranding assets, that all 70 currently registered projects on the Registry be grandfathered for eligibility, and that any UER certificates generated from these projects be deemed eligible, regardless of vintage, through the current

eligibility period of 2026. Ideally, we would also have a 60-day run-off period to capture any projects not yet submitted into the DEHSt UERV Registry. We have additional suggestions for how Germany can best leverage the important contribution of the UER program and ensure that there are no stranded assets, but these suggestions would be best communicated in committee.

Conclusion and Next Steps

Since the beginning of the war in Ukraine, no country better understands the challenges of the energy transition. Over the course of 24 months, Germany has had to completely shift its sources of energy supply to alternate sources. Through this experience, Germany understands the challenges of sudden and abrupt changes. Germany has been able to weather this storm because it is a dynamic, modern country with exceptional human and technical capital.

The German UER program is delivering real, immediate high-quality reductions and playing an important role catalyzing decarbonization efforts in a number of countries that are skeptical of the energy transition. These countries do not have the same ability to weather sudden abrupt changes. The proposed changes in this amendment will hurt and delay the energy transition of those energy partners in the developing world that have largely replaced Germany's oil & gas energy supply. Eliminating UERs, especially in the proposed sudden and abrupt fashion, will have negative consequences for the environment, the global energy transition, and Germany's reputation in the world.

We urge a thoughtful reconsideration of the proposed amendments and request the opportunity to present our arguments to legislators in committee, either virtually or in person. Thank you very much for your consideration.