Stephen D. Burns
Manager,
California Government
Affairs

Chevron Corporation
Policy, Government and
Public Affairs
1201 K Street, Suite 1910
Sacramento, CA 95814
Tel (916) 441-3638
Fax (916) 441-5031
stephen.burns@chevron.com

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Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, California 95814

Electronic filing. http://www.arb.ca.gov/lispub/comm/bclist.php

RE: **Cap on greenhouse gas emissions and market based compliance mechanisms – Proposed 15-Day Modifications (July 25, 2011)**

Dear Chair Nichols and Members of the Board:

Chevron has been a California company for more than 130 years and is the largest Fortune 500 corporation based in the state. Our business indirectly supports nearly 60,000 jobs in addition to 10,000 employees of Chevron based in California. That's approximately 70,000 jobs, or one in every 200 California jobs. As a major California company, as an energy provider, and as an employer, we are significantly affected by the state's current and proposed climate change programs. Our company began work to reduce greenhouse gases long before the State passed AB 32. Because of the unique nature of CO_2 as a pollutant, the only way for our industry to reduce greenhouse gases in combustion and process emissions is through energy efficiency and optimization of operations. This year we reached our highest energy efficiency mark – operating at 33% higher efficiency in 2011 compared to 1992. We have actively participated in stakeholder meetings, broad-based industry and environmental group meetings, and discussions with the Air Resources Board ("ARB") and its staff, in order to make the program and this proposed rule workable for businesses in California while meeting the goals of AB 32.

While we have been supportive of cap and trade as a cost effective mechanism to reduce greenhouse gases to meet California's mandated goals, we cannot support the detailed program set out in the July 25 proposed 15-day modification to the cap on green house gas emissions and market based compliance mechanisms regulation (the "proposal"). This proposal takes an already burdensome program in the wrong direction during tough economic times – increasing complexity and compliance costs for California's businesses. The proposal fails to address fundamental principles for good public policy aimed at managing greenhouse gas emissions – fairness, certainty, cost containment, maintaining carbon market liquidity and addressing market manipulation, and recognizing early action. California should not adopt rules that punish companies that are building in California, have made significant prior investments, and are bringing jobs to the state.

Despite the agreement achieved on many key areas in the December 2010 rulemaking developed through the stakeholder process, the July 25 proposal reverses the direction set forth in December and represents changes made without our industry's input. The proposal also diverges from the original December 2010 rule and disregards issues critical to addressing the state's ongoing economic recession by increasing the

burden on California entities unnecessarily; by unfairly penalizing larger participants compared to smaller ones; and in the case of benchmarking, ignoring industry-specific technical needs in favor of "one size fits all" policy choices. These policy choices do not recognize the diversity of California's energy resources and industry, and it will discourage further investment. We have appreciated the opportunity to work with ARB on this rulemaking, but are very disappointed that critical data, hard-won industry consensus and input from carbon market experts were discarded in this process.

We recommend changes to the following areas:

- **Allowance Allocation** – ARB should provide 100% free allowances to industry to prevent leakage of jobs and emissions out of the state, consistent with the December 16, 2010 cap and trade rule. The proposal reduces industry assistance by setting the benchmarks at 90% of the industry average which results in industry having to purchase the remaining allowances at auction.

- **Oil and Gas Production Benchmarking** – ARB should adopt the thermal/non-thermal benchmark for oil and gas production that recognizes California's unique products which are a function of the geology and the type of resource. The proposal reversed the December 2010 rulemaking which proposed a thermal/non-thermal benchmark for oil and gas production in favor of light and heavy crude oil because it more precisely fit the definition of a product-based benchmark.

- **Refinery Benchmarking** – ARB should adopt the Energy Intensity Index (EII) based benchmark that meets the goals of AB 32 to reduce CO_2, reward early action, and not punish those that invest in their California refineries. The proposed "Simple Barrels" benchmark would promote leakage and simply does not achieve AB 32 goals, which were included in the statute, of rewarding early action at existing facilities. It also is not equitable to larger facilities that manufacture cleaner California fuels and other high value products such as lubricating oils, which serve global markets.

- **Liquidity, Equity and Cost Containment** – ARB should make substantial changes to the market cost containment proposals, removing the overly restrictive and subjective policies which will diminish the effectiveness of the market and hinder economic growth. The proposal fails to address the inequitable impacts that it imposes on larger entities both directly — through constraints on their ability to participate in the market (via the holding limits) — and indirectly,— through weakening cost containment policies regarding offsets liability, which will reduce offset development. Without policies to address these issues, large entities that invest heavily in the state and create jobs for Californians will be unfairly disadvantaged.

Our detailed comments and recommendations follow. Additional comments from Linklaters on holding limits, auction frequency, and offset development are attached.

Allowance Allocation - A stringent benchmark reduces industry assistance and leads to leakage

The proposal arbitrarily sets the benchmark for industry sectors at 90% of the industry average. This results in a reduction of industry assistance to 90% for the first compliance period from 100% as proposed

in the December 2010 rule. By arbitrarily requiring California companies to purchase 10% of their allowances at the very start of the program — in addition to making reductions under the cap — this punishes companies who have chosen to invest in California. It places California companies at an immediate competitive disadvantage and encourages them to move investments and jobs out of the state. Leakage of economic activity to other states will lead to fewer jobs in California and higher CO_2 emissions in the long run as goods are imported across the state borders. Keeping the industry assistance at 100% in the first compliance period provides the necessary transition period for California companies to reduce emissions while staying competitive and keeping investment in the state.

- Greenhouse gas emissions are lower now [1] than they were projected to be when the scoping plan set out the suggested budgets for cap and trade. Therefore, requiring additional diversion of working capital into expenditures for allowances is unnecessarily stringent considering the economic downturn in the last four years. In addition, new regulatory measures adopted by the ARB in the interim have clearly changed the reductions needed to meet the goals of AB 32. With the current emissions picture, ARB could both restore the allowances to 100% and also reduce the slope of the cap while meeting the goals of the law.

- The ARB staff's reasoning for setting a stringent benchmark includes (1) the fact that the European Union (EU) has set a benchmark in Phase 3; and (2) the December 2010 rule required that at least two sectors were reduced by this amount: the utility sector and the cement sector. However, this reasoning fails to recognize several important factors. First, the utilities are not trade exposed and also receive a rebate for their customers and have a higher relative baseline than their current emissions. Second, the cement sector is not making the same reductions proportional to the cap as have been proposed for all other industries. Finally, while the EU is setting a high benchmark, they have been implementing their program for over 6 years. It is well known that the EU did not begin their cap and trade program with harsh cuts and significant reductions under their cap; rather they initially capped utilities and introduced reductions to industry at a slower pace, despite having broader regional jurisdiction than California's program.

Oil and Gas and Refinery Benchmarking - Sector specific benchmarks must be based on technically sound metrics developed through a fair public process that recognize California's unique industry footprints

Oil and Gas Benchmark – The ARB selected a light and heavy crude oil benchmark in its proposal because it is more precisely "product based." This shift from the thermal/non-thermal benchmark adopted in the December 2010 rule ignores key characteristics of California's energy resources and neither the approach nor the calculations supporting the benchmark were vetted with stakeholders or industry experts. California's unique oil and gas resources are not accurately represented by simply focusing on the density of the crude oil. Instead, the resources are better represented by the combination of the type of oil and the geologic resource. Future development of light oil resources found in tight geologic formations in the San Joaquin Valley will be jeopardized by adoption of a literal, light/heavy product-based approach. Getting the benchmarks right at the program start is critical not only for a California cap and trade market, but also for positioning of the California industry if the California markets are linked to other jurisdictions. The benchmarks are an opportunity to create a more level

[1] Supplement to the AB 32 Scoping Plan Functional Equivalent Document, California Air Resources Board, June 13, 2011

playing field for the California industry. Instead, the proposal exacerbates the differences and serves only to disadvantage the California industry.

In addition, through meetings with the ARB staff, we learned that the formulas and averages used to establish the benchmark were based on incorrect assumptions rather than data. The ARB should be transparent in the development of its benchmarks. The procedure establishing the benchmark should be published and vetted with stakeholders prior to adoption. It should base the benchmark on verified emissions data from 2008 and 2009, collected with all parties using the same methods under the Mandatory Reporting rule, so that it is comparable. Any industry averages used to determine the benchmark should also incorporate all direct and indirect emissions (both electrical and thermal) and be production weighted. Additional protocols are needed to define the data to establish thermal and non-thermal fields and for indirect and direct emissions. ARB can use publically available data in the Division of Oil and Gas & Geothermal Resources databases to check the submissions by industry to ensure that the production is associated with the correct benchmark.

Refining Benchmark – ARB proposes to use a “simple barrel” approach because it is “product based.” A product-based approach might be appropriate if the industry’s production processes were similar and emissions were correlated correctly with the products, thereby creating a reasonable incentive to reduce greenhouse gas intensity. However, California makes unique demands of its refineries by requiring cleaner fuels which has, in turn, required more complicated operations that utilize much more equipment than typical refining operations. The simple barrel benchmark ignores this complexity and divides the total amount of selected products into the total amount of direct carbon emissions. It does not include all products produced. Furthermore, it treats all of the products included equally despite differences in their emissions profiles. As an example, production of asphalt results in significantly less CO_2 emissions than production of California gasoline.

This flawed approach disadvantages large facilities with more self-sufficient onsite operations, while advantaging facilities that import chemicals and intermediate products, facilities that have less equipment and those that produce and export more waste products. The simple barrel method also discourages producing other product mixes such as high value lubricating oils. It simply rewards companies with small equipment configurations that produce a limited suite of products. It also creates perverse incentives to outsource processes, import intermediates, and export waste materials that could be refined into valuable products.

Finally, it creates profound winners and losers. Based on comparison of emissions intensities (Tonnes of CO_2 equivalent emissions per barrel of “product,” as defined by ARB) provided in the proposal, the simple barrel approach provides almost 200% of needed allowances to refineries making less than 3% of the products for the state and penalizing others by over 50%. Simply put, adopting the simple barrel approach will encourage the outsourcing of high value products and, importantly, the jobs that produce them.

By contrast, the WSPA adjusted EII benchmark for refining rewards early actions and does not punish companies for investing in California facilities. This approach uses an independent industry metric that is equipment neutral and does not favor certain product mixes nor incentivize imports of intermediaries. The original WSPA approach was not designed for the application of a 10% reduction in free allowances as included in the proposal (which we oppose). However, if required, it can be adjusted to have a smaller spread through tempering so that the benchmark methodology meets ARB’s objectives. If ARB insists on a product-based approach, we would support adoption of the EU factors for the Complexity Weighted Tonne benchmark in the first compliance period. While this concept does not have industry consensus and is not ideal for California, this benchmark is technically sound, rewards early action, and is neutral on configuration so that it does not punish California’s refineries. In summary, we do not support a simple

barrel approach. The adjusted EII approach developed by WSPA is the most equitable approach and still meets ARB's objectives.

Treatment of Cogeneration and Electricity in Benchmarks - The GHG emissions that are incorporated into the benchmarks for oil and gas and refining and for all sectors should include the emissions for the net power and heat consumed and sold. In particular, some of the operations within the upstream and refining sectors have cogeneration facilities which contribute to the direct emissions. Some of the power from these facilities is consumed onsite and some is exported. Only the power consumed onsite should be charged against the facility emissions in the benchmark calculation.

Furthermore, in order to ensure that there is even treatment of operators with cogeneration facilities compared to net purchasers of electricity and heat, indirect emissions from imported power from the grid and heat from other facilities should also be included in the benchmark calculation. Otherwise, ARB would be creating an incentive for companies to favor purchasing power from the grid and/or outsourcing thermal purchases because it does not count against their benchmark performance. Note that the raw data for both the imported and exported power is already reported in the facilities' MRR reports. If facilities have both thermal and non thermal operations, power can be allocated to the separate operations by apportioning the power based on production.

To address these changes in the oil and gas production benchmark, a calculation supporting this approach was provided to ARB as part of the WSPA oil and gas thermal and non thermal benchmark proposal. To address these concerns in the WSPA refinery benchmark proposal the only change would be to subtract the emissions from the sale of power because the EII takes electricity and cogeneration into account in the calculation of the EII.

In addition to distribution of allowances for direct emissions through benchmarking, there are impacts to oil and gas production from the costs of purchased electricity and heat. Because oil and natural gas production are global, California facilities were found by ARB to be highly trade-exposed. The use of electricity is a significant cost to oil and gas production, which would exacerbate trade exposure and leakage. Therefore, under the proposed regulation, it would be appropriate for oil and gas producers to receive, at a minimum, the allowances for indirect electricity use directly (as opposed to the provision of those allowances to the distributors). To address concerns that double counting could occur, ARB could deduct these allowances for imported electricity from the utility sector. Our understanding is that ARB staff had agreed, prior to the release of the proposed regulation that direct allocations would be provided to oil and gas producers after the CPUC acts on utility pass-through rules.

Market Design and Cost Containment - Market liquidity and cost containment measures must be equitable and effective

Auction Purchase Limits and Holding Limits – ARB has increased the auction purchase limits for allowances of future vintage years but did not change the policy on the purchase limits applicable to current vintage years and the position on holding limits. ARB's proposal that covered entities cannot purchase in an auction, or hold in their account, a sufficient quantity of allowances to meet their legal obligations is without basis. ARB has essentially designed its market to guarantee that large entities will be short in every auction and required to go into the secondary market to buy their allowances at a premium from speculators and financial intermediaries. This is a fundamental market flaw that provides an opportunity for such players to corner the market and, as such, it is unacceptable, especially in light of the State's experience with energy markets.

Chevron has included as Exhibit I expert analysis from the international law firm Linklaters LLP which is recognized worldwide for its expertise with commodities and carbon markets. According to research

conducted by Linklaters, no other major current commodities or carbon market contains position limits such as those included in the proposal. The proposal's position limit is actually a rule developed by the Commodities Futures Trading Commission (CFTC) to regulate futures commodities markets for the purpose of minimizing financial exposure of market participants. The CFTC rule is not intended to curb the risk of market manipulation and its extension to spot (or inventory) markets for this purpose is untested and not supported by empirical data and proper analysis. Similarly, Linklaters has indicated that no other carbon market contains purchase limits similar to those included in the proposal, except for the Regional Greenhouse Gas Initiative (RGGI). In RGGI, however, the purchase limit is 25%, not 10%, and no covered entity's compliance obligation in RGGI exceeds that 25% purchase limit. To address this issue, ARB does not need to remove the proposed purchase limits or position limits. The simple fix is to permit covered entities to bid and hold a quantity of allowances up to the limit contained in the current proposal, or a quantity equal to that covered entity's compliance obligation (at a minimum), whichever is greater.

Auction Frequency – Research conducted by Linklaters indicates that the most efficient way to address the risk of market manipulation is to hold auctions frequently. More auctions reduce the risk of market abuse because of the decreased value at stake in smaller auctions. They also minimize price volatility experienced at the time of allowances auctions and the risk of any market player exercising market power between auctions. For those reasons, most agencies managing carbon markets have moved to a weekly auction schedule, including in Europe and Germany where, by law starting in 2013, auctions must be held on a weekly basis or more frequently. RGGI is an outlier whose design dates back to 2006/2007. The RGGI quarterly auction schedule, however, has been largely untested because the RGGI market is long and trading activity is low, which materially diminish the incentives for any players to manipulate the markets.

Liability for Offset Rescission – Cost containment provided by a robust offset supply is a critical element of the December 2010 rule. The liability regime for offset rescission included in the proposal, however, will jeopardize this supply because it will significantly discourage investment in and financing of offset projects. The offset rescission risk is difficult to manage on a transaction-by-transaction basis – based on experience, no private insurance product is available or likely to be available to address it – but the risk can easily be borne by the market as a whole at a marginal cost to each market participant. Overall this risk is best managed by the creation of a buffer pool on a program-wide basis, with the ultimate risk residing with the program itself. If ARB does not believe that this option is practical or feasible, ARB should consider the alternative of removing a quantity of allowances from the cap equal to the number of offsets rescinded, for which recovery from a culpable party is not possible. Chevron would generally oppose removing any allowances from the cap. However, faced with the prospect of inadequate offset supply and higher allowance prices in the market, Chevron would rather have ARB implement this alternative solution than leave the current proposal in place.

Corporate Association Consolidation - Liquidity is critical to market functionality and to cost containment. The proposed rule includes position holding limits and purchase limits that apply to companies and any indirectly affiliated entities. This policy is unworkable as companies often have no control over indirectly affiliated companies. It is unreasonable because it places a partial owner at risk if an affiliate, over which it has no control, violates its holding limit or purchase limit. This policy effectively punishes the larger companies for having expanded their investments in California without controlling interests. This policy would also compromise fair competition by requiring that companies communicate their trading and holding positions to third parties who have a competitive interest in the market. At a minimum, the exception in Section 95920(f) of the proposal should be applied to the purchase limit in Section 95911.

ARB should use the program delay to reconsider provisions not covered in this rulemaking — like trade exposure and including fuels in the cap — that will create economic burdens and competitive disadvantage in the second compliance period

While trade exposure is not being discussed at this point, it is critical for ARB to review trade exposure for refining as part of its cap and trade program monitoring. Trade Exposure for Refineries and Fuels under the Cap should be evaluated at least one year prior to the start of the second compliance period to prevent adverse effects of the program on California industry, jobs, and the economy. As ARB moves forward to complete the cap and trade rule, California is attempting to recover from a negative economic period. However, California has no real prospects of linkage with other WCI entities and has shown no interest in linking with larger, proven, and viable markets. Most of the world has withdrawn from participating in global commitments to climate change policy, while recognizing the importance of basic programs such as energy efficiency. We had hoped that the delay of the start of the program would allow sufficient time for a more measured, thoughtful and reflective process. Instead, the delay has become a mere waiting period, during which there is no proposal for regulatory relief, nor any necessary changes to its requirements. As we complete the detailed rules for cap and trade, key issues remain that we all agree must be addressed in 2012 going forward. These include the competitive disadvantages and additional economic burdens proposed in the second compliance period when a large number of industrial sources are subjected to higher costs through a steep cap trajectory and higher auction allowance burden. Of critical concern to our industry, our company, and our consumers, is the inclusion of transportation fuels under the cap in 2015, which will add to the existing burdens and significant costs associated with the Low Carbon Fuel Standard, without driving advance fuel technology. We welcome the opportunity to utilize the delay to engage in a constructive process with ARB to address the issues highlighted in this document.

In closing, we hope the ARB will implement the specific recommendations presented above so that its AB 32 program will not punish companies that are building in California, have made significant prior investments, and are bringing jobs to the state.

Best regards,

Original signed by:

Stephen D. Burns

Enclosure

Linklaters

Linklaters LLP
1345 Avenue of the Americas
New York, NY 10105
Telephone (212) 903-9000
Facsimile (212) 903-9100
Direct Line (212) 903-9049
Direct Fax (212) 903-9100
jp.brisson@linklaters.com

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, CA 95814

By Email

August 11, 2011

Our client Chevron Corporation has asked us to review certain aspects of the revised draft of the Air Resources Board's ("**ARB**") cap-and-trade regulations, proposed July 25, 2011 (the "**Regulations**"). Specifically, Chevron has requested that we analyze the provisions in the Regulations relating to the auction purchase limit, holding limit and auction frequency (collectively, the "**Relevant Provisions**") and provide comments to ARB based on our knowledge and experience with other carbon and commodities markets in the U.S. and the European Union, Germany, France, and the United Kingdom.

This letter is submitted as Exhibit 1 to the comments filed by Chevron with ARB on August 11, 2011 in connection with the Regulations. Linklaters LLP is a leading global law firm with over 2,200 attorneys in 19 countries. Our global approach and commitment to excellence ensure the highest standards of quality and service across all our relationships. Linklaters' Global Climate Change Practice comprises more than 20 lawyers in New York, London, Paris, Berlin, Beijing, Singapore and other major regions of the world. Schedule 1 of this letter provides additional information on our firm and practice.

1 Summary

Small Market Size. Concerns about market power and manipulation in the California carbon market are perfectly reasonable, primarily because the market is relatively small (162.8 million allowances under the cap in 2013 and 394.5 million allowances in 2015) compared to other carbon markets. For example, the cap under Phase II of the European Union Emissions Trading System ("**EU ETS**") is 2.08 billion allowances.

The Holding Limit is Unprecedented. As indicated in Table 1 below, our review of the regulations governing major carbon and commodities markets in the countries identified above demonstrates that the holding limit included in the Regulations is unprecedented. The holding limit was actually designed by the Commodity Futures Trading Commission (the "**CFTC**") to govern futures markets. The purpose of the rule is not to curb potential market power issues, but rather to protect the market

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from the systemic risk that arises where any one market participant takes on too large a position.[1] In proposing the holding limit, ARB has taken a rule designed by the CFTC to prevent systemic risk in the futures market and has applied it to an inventory carbon market. We are of aware of no data, information or research that demonstrates or otherwise purports to show precisely what positive impact the holding limit rule will have on the inventory carbon market.

The Holding Limit will have Unintended Negative Impacts. Section 3 of this letter identifies a number of significant concerns in connection with the holding limit contained in the Regulations. For example, as currently drafted, the holding limit will result in lower market liquidity, because it will force covered entities with compliance obligations above the limit to take allowances out of the market by moving them into a compliance account. In a market where the underlying size is already low, this measure will exacerbate the ability of any participant to manipulate markets.

The Auction Purchase Limit has a Design Flaw that may Result in Market Manipulation. The auction purchase limit proposed in the Regulations is not a policy tool used frequently in carbon and commodities markets. Of all the jurisdictions we have surveyed for the purpose of preparing this letter, only RGGI has adopted an auction purchase limit, which is set at 25% and well above the compliance requirements of any of its participants. The primary concern with the purchase limit contained in the Regulations is that the limit is set below the compliance requirements of certain large covered entities. This market design creates a natural short on such entities and guarantees that they will have to go into the secondary market to make up that deficiency.

While additional trading in the secondary market would generally be considered beneficial (in that it would increase liquidity and price discovery), this is not the case where the short is mandated by regulation and financial intermediaries and speculators are aware that a covered entity must acquire additional allowances to comply with the law. Under such circumstances, non-covered entities will have an incentive to acquire as many allowances as possible in the auction with the hope that covered entities will purchase them in the secondary market at an inflated price. Accordingly, the overall liquidity of the market for allowances may actually decrease, while a transfer of wealth will occur from the covered entities to the non-covered entities.

Solution. The ARB could address each of the concerns raised above by removing the auction purchase limit and the holding limit from the Regulations. However, as further explained in this letter, we believe there is a simpler alternative. In particular, the ARB could simply modify the auction purchase limit to allow covered entities to purchase the number of allowances corresponding to their compliance obligation, plus a relatively small buffer. Similarly, in regards to the holding limit, the ARB could permit covered entities to hold the number of allowances corresponding to their compliance obligation, even if that number is in excess of the applicable holding limit.

[1] The CFTC was concerned in particular with systemic risk, because many feel that the failure of entities such as Lehman Brothers and AIG had a systemic impact on the market that exacerbated the recent financial crisis.

Table 1
Review of Limitations Applicable in Certain Markets

	Auction Purchase Limit	Holding Limit
Germany ETS	None	None
France ETS	None	None
United Kingdom ETS	None	None
European Union ETS	None	None
RGGI	25%	None
US Commodities	None	None
California Regulations	10% current vintage; 25% future vintages	Yes, using a CFTC rule designed to regulate futures commodities markets

Auction Frequency. Our review of recent research and analysis prepared primarily in Europe in connection with the European Union carbon market has identified a fairly wide consensus among market regulators that the most efficient tool to address market manipulation is to hold auctions frequently. Frequent auctions reduces the risk of market abuse because of the decreased value at stake in each auction, minimizes price volatility experienced at the time of auctions and minimizes the risk of any market player exercising market power between auctions. Based on the foregoing and as indicated below in Table 2, most markets we have reviewed have moved to a weekly auction schedule. RGGI has a quarterly schedule, but this design dates back to 2006/2007 and does not reflect the most recent research from, and experience gained in, Europe. More importantly, the RGGI auction schedule has been largely untested, because the RGGI market is long (i.e., the cap is higher than actual emissions) and trading activity is low, which materially diminish the incentives for any players to manipulate the markets.

Solution. Therefore, if the ARB is concerned about the potential for market abuse that may arise from modifications to the auction purchase limit and/or the holding limit, it can adopt the approach used in most other carbon markets for fighting market abuse and increase the frequency of auctions.

Table 2
Review of Auction Frequencies in Certain Markets

	Annual	Semi-annual	Quarterly	Monthly	Bi-weekly	Weekly
France						X
Germany						X
United Kingdom				X until 2012		X after 2013
European Union						X
RGGI			X			
US Treasuries				X	X	X
California			X (proposed)			

2 Auction Purchase Limit and Holding Limit in Carbon Markets

Section 95911(c) of the Regulations places limits on the maximum number of allowances that can be purchased by any entity or group of entities with a disclosable corporate association at each auction. For auctions conducted from 2012 through 2014, the proposed limit is 10% of current vintage allowances offered in that auction and 25% of future vintage allowances offered in an advance auction.

In addition, Section 95920 provides a holding limit applicable to the maximum quantity of allowances that may be held or jointly held by a group of entities with a corporate association at any point in time.[2] Under Section 95920(d)(2), the holding limit does not apply to allowances contained in a covered entity's compliance account. However, once transferred to the compliance account, the relevant allowances cannot be withdrawn.

This section 2 reviews the rules in effect in the carbon markets of the European Union, Germany, France, United Kingdom, and RGGI to assess whether they include purchase limits and holding limits similar to those proposed in the Regulations.

2.1 European Union Emissions Trading System

Directive 2003/87/EC established and governs the European Union Emissions Trading System (the "**EU ETS Directive**"), as amended by, *inter alia*, Directive 2009/29/EC.[3] Furthermore, on November 12, 2010, the European Commission adopted Commission Regulation 1031/2010 ("**EU ETS Auction Regulation**"), which will regulate and provide uniform requirements applicable to all auctions of EU ETS allowances across the European Union in respect of allowances for the period starting in 2013.[4]

The EU ETS Auction Regulation provides that an auction platform may impose a maximum bid-size "necessary to mitigate an actual or potential discernible risk of market abuse, money laundering, terrorist financing or other criminal activity, as well as anti-competitive behaviour".[5] Such bid limit, however, may only be imposed (1) after consulting with the EU Commission and obtaining the Commission's opinion thereon and (2) provided that the implementation of a bid limit would effectively mitigate the risk in question.[6]

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[2] The holding limit formula for the current vintage year is provided for by Article 5, Subarticle 11, § 95920(d)(1):

Holding Limit = 0.1*Base + 0.025*(Annual Allowance Budget - Base) In which:

"Base" equals 25 million metric tons of CO_2e.

"Annual Allowance Budget" is the number of allowances issued for the current budget year.

The future vintage year holding limit formula is found in Article 5, Subarticle 11, § 95920(e):

Holding Limit = 0.1*Base + 0.025*(Compliance Period Budget - Base) In which:

"Base" equals 75 million metric tons of CO_2e.

"Compliance Period Budget" is the number of allowances issued for the future compliance period from which the allowances were sold at the advance auction.

[3] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0063:0087:en:PDF.

[4] http://eur-lex.europa.eu/Notice.do?val=531426:cs&lang=en&list=531426:cs,&pos=1&page=1&nbl=1&pgs=10&hwords=.

[5] Article 57(1), EU ETS Auction Regulation.

[6] Article 57(1), EU ETS Auction Regulation.

In addition, to ensure the integrity of the system from individual bidders' misconduct, an auction platform shall refuse to grant admission to bid or revoke or suspend any admission to bid to any entity if it "suspects ... criminal activity or market abuse" by such entity, provided such refusal, revocation or suspension is unlikely to frustrate efforts to pursue or apprehend the perpetrator.[7] Furthermore, an auction platform may refuse any admission to an entity "who has otherwise behaved in a manner that is prejudicial to the orderly or efficient conduct of an auction."[8]

Otherwise, neither the EU ETS Directive nor the EU ETS Auction Regulation contains any blanket auction purchase limit or holding limit similar to those contained in the Regulations. To our knowledge, no such limitation has ever been required by the European Union nor is one currently contemplated or being considered.

2.2 Germany

There are no standard auction purchase limits or holding limits applied in Germany in respect of auctions of allowances undertaken by the German State.

The national law governing the auctions of EU ETS allowances held during Phase II of the EU ETS (i.e., until the end of 2012) is embodied in the Emissions Trading Auctioning Ordinance 2012 ("**EHVV 2012**"). As for the auction of EU allowances ("**EUAs**") and EU Aviation Allowances ("**EUAAs**"), the EHVV 2012 will be replaced by the EU ETS Auction Regulation for Phase III of the EU ETS starting January 1, 2013.[9]

EHVV 2012 (currently in effect) does not impose a general purchase limit or holding limit. If a bidder's behavior indicates that the bidder aims to distort auction prices, however, the regulatory authority may limit the total allowable bid quantity per bidder at 100,000 allowances per auction in spot or futures trading.[10]

Germany's position reflects prior discussion and analysis conducted as part of its legislative process. In 2009, the German Federal Environment Office (Umweltbundesamt) published a study ("**Umweltbundesamt Study**") which discussed the market design issues applicable to auctions.[11] Among other issues, the study examined whether a maximum total bid quantity per bidder would help prevent market power and considered limiting the bids per bidder as a proportion of the volume available in one auction or all auctions. Ultimately, the study concluded that imposing a bid limit per bidder at an auction would require a costly, European Union-wide examination of ownership structures. This would have increased the complexity of the trading system and, accordingly, would have impeded access to auctions. Also, the study

[7] Article 21(2), EU ETS Auction Regulation.

[8] Article 21(3)(b), EU ETS Auction Regulation.

[9] *Cf.* Article 8 (1) Sentence 1 German Greenhouse Gas Emissions Trading Act (TEHG), as amended 28 July 2011.

[10] Article 5 (2) and (3) EHVV 2012.

[11] German Federal Environment Office (Umweltbundesamt), Climate Change: Methodological design and institutional arrangements for auctions in the EU Emission Trading System, 06/2009 ("**Umweltbundesamt Study**"), at 8 para 2.1 et seq., available at http://www.umweltdaten.de/publikationen/fpdf-l/3808.pdf

noted that no EU ETS auction has imposed any restriction on the maximum bid quantity per bidder.[12]

2.3 France

There are no auction purchase limits or holding limits in France.

France codified the provisions contained in the EU ETS Directive in the French Environmental Code (the "**Code**"), and, during Phases I and II of the EU ETS, the Code did not provide for any auction of allowances. However, France is expected to establish an auctioning mechanism for Phase III starting in 2013 in accordance with the EU ETS Auction Regulation, which will apply directly in all Member States in any event.

Although the details of the auctioning mechanism have not been announced, the relevant agencies in France have prepared two reports examining various issues in connection with the auctioning of allowances. In 2009, the French Finance Ministry published a Report of the Working Group on the Modalities for the Sale and Auctioning of CO_2 Allowances (the "**Charpin Report**").[13] The goal of the Charpin Report was to provide recommendations to the French government in connection with the establishment of auctions in France. The second report is the 2010 Report on the Regulation of CO_2 Markets (the "**Prada Report**"),[14] whose committee was formed to review the European CO_2 market and formulate recommendations for Phase III market regulation.

The Charpin Report advises against adopting a maximum bid limit from a single entity, on the basis that such limits should be envisaged as a last resort instrument only. According to the working group, the risk of market manipulation is better addressed through other auction design elements, including the frequency of auctions, the quantity of allowances offered in each auction and/or the implementation of early manipulation warning systems. The Prada Report outlines the parameters needed to implement holding limits, in the event such limits are required as a last resort. The Prada Report stresses that establishing such limits at the most efficient level is an extremely complex process and identifies a number of considerations.

2.4 United Kingdom

There are no auction purchase limits or holding limits in the United Kingdom.

Like in Germany and France, for Phase III of the EU ETS starting on January 1, 2013, the auction of greenhouse gas emission allowances under the EU ETS will be governed by the EU ETS Auction Regulation. During Phase II of the EU ETS, the legislative framework of the auctions in the UK consisted of:

(i) The Community Emissions Trading Scheme (Allocation of Allowances for Payment) Regulations 2008 (the "**CETSR 2008**") – these were revoked and replaced by (ii);

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[12] Umweltbundesamt Study, at 13 para 2.1.7.

[13] French Finance Ministry, *Report of the Working Group on the Modalities for the Sale and Auctioning of CO_2 Allowances*, 48 (Jul. 2009).

[14] French Finance Ministry, *The regulation of CO_2 markets*, 133 (Apr. 2010), available at http://www2.economie.gouv.fr/services/rap10/101004prada-report.pdf.

(ii) The Community Emissions Trading Scheme (Auctioning of allowances) Scheme 2009 – these were revoked and replaced by (iii); and

(iii) The Community Emissions Trading Scheme (Auctioning of Allowances) (No.2) Scheme 2009 (the "**CETSS 2009**") – currently in force.

2.5 Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative ("**RGGI**") has an auction purchase limit of 25% and no holding limit. Under RGGI's auction purchase limit, a participant may only purchase up to 25% of the allowances offered for sale in any given auction.[15] For a number of reasons, we do not believe that the auction purchase limit concept in RGGI should be adopted into the Regulations. First, RGGI's market design was originated in 2006/2007 and therefore does not build upon or otherwise reflect the recent experience of the major carbon markets across the globe. Second, due to (i) RGGI's relatively low trading volume and (ii) the difference between the compliance obligations of RGGI covered entities and the auction purchase limit of 25%, RGGI cannot be used as a reliable example of how the California carbon market will be impacted by the proposed auction limit in the Regulations.

In regards to point (ii) above, it is important to note that none of RGGI's covered entities has a compliance obligation that exceeds the auction purchase limit (the largest covered entity of RGGI requires less than 15% of the allowances, which is far below the 25% RGGI auction purchase limit). Therefore, covered entities under RGGI will be able to purchase all of the allowances they need in auctions plus a margin allowing for hedging, and will not be forced to buy under unfavorable conditions in the secondary market.[16] This is an important distinction from the California carbon market, where the Regulations will cover entities that have compliance obligations in excess of the proposed auction purchase limit, thereby requiring such covered entities to purchase additional allowances in the secondary market under potentially disadvantageous conditions.

Based on the foregoing, it is our view that RGGI does not accurately reflect the state of the carbon markets today, nor is it a reliable model for projecting how the California carbon market would respond to auction purchase limits.

3 Discussion

Our analysis of the Relevant Provisions has identified a number of concerns, including the following.

3.1 Holding Limit is a Futures Market Rule

Source of Rule. The holding limit rule contained in Section 95920 of the Regulations originates from a formula designed by the CFTC to govern futures markets.[17] The purpose of

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[15] RGGI, Fact Sheet: RGGI CO2 Allowance Auctions, available at http://www.rggi.org/docs/RGGI_Auctions_in_Brief.pdf.

[16] Based on information provided by Thomas Reuters, dated Aug. 10, 2011.

[17] Generally speaking, a futures market is a financial exchange where parties can trade contracts to buy quantities of a particular commodity at a specified price, with delivery of the commodity set at a specified time in the future. To be clear, none of the auctions to be administered pursuant to the regulations would constitute a "futures market".

the rule was not to curb potential market power issues, but rather to protect the market from the systemic risk that arises where any one market participant takes on too large a position.[18]

ARB Extension of CFTC Rule. In proposing the holding limit rule, the ARB has taken a rule designed by the CFTC to prevent systemic risk in the futures market and has applied it to an inventory carbon market. The distinction between futures markets and inventory carbon markets is significant, in part because the CFTC does not have reliable data on what the holding limit's impact would be on the inventory carbon markets.[19] We have reviewed the record and have found no support for the extension of a rule designed to regulate futures markets to a rule applicable to the inventory market.

WCI Report. In its *Staff Report: Initial Statement of Reasons* released in October 2010, the ARB explained that its holding limit formula for the current vintage year was selected primarily on the recommendation by Professor Jeffrey H. Harris of the University of Delaware.[20] Professor Harris recommended this formula in his analysis of holding limits for the Western Climate Initiative (the "**WCI Paper**").[21] We have reviewed the WCI Paper and do not believe that it properly assesses the risks associated with the extension of the holding limit rule to the inventory market. In particular, (i) the WCI Paper simply refers to the futures market position limits, and assumes that there is no meaningful distinction between a futures market and an inventory market; (ii) the WCI Paper does not examine or review the extensive experience gained in the EU with carbon markets, and (iii) the WCI Paper does not contemplate in any respect the situation where the compliance obligation of a covered entity exceeds the holding limit. In addition, the WCI Paper itself does not even offer any support, analysis or data for the proposition that the CFTC position limit rules can or should be applied in the context of inventory carbon markets.

Risks. To our knowledge, there is no data, information, or research that demonstrates or otherwise purports to show precisely what positive impact the holding limit rule will have on the carbon market. On the other hand, a number of negative developments would likely follow the imposition of a holding limit rule, including a reduction in liquidity (caused by forcing covered entities to remove allowances from the market by moving them into their compliance accounts) and effective price discovery, each of which would increase the costs and risks of implementing legitimate hedging strategies.

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[18] *See supra* n. 1.

[19] In its report to Representative John Boehner, the CFTC does not consider holding limits in the context of the carbon inventory market, but rather only in the context of its discussion on the derivatives market. The CFTC also states that the inventory markets should not be subject to the same comprehensive oversight as derivative markets. *U.S. Commodity Futures Trading Commission's Report on the Oversight of Existing and Prospective Carbon Markets* (Jan. 18 2011), available at http://www.cftc.gov/ucm/groups/public/@swaps/documents/file/dfstudy_carbon_011811.pdf.

[20] ARB, *Staff Report: Initial Statement of Reasons* (Oct. 28, 2010), available at http://www.arb.ca.gov/regact/2010/capandtrade10/capisor.pdf.

[21] Jeffrey H. Harris, *Western Climate Initiative Markets Committee Report on Holding Limits* (Apr. 5, 2010), available at http://www.westernclimateinitiative.org/news-and-updates/108-markets-committee-invites-comments-on-holdings-limits-report.

3.2 Holding Limit Should Account for Differences Between Covered and Non-Covered Entities

The holding limit rule does not account for material differences in the behavior and interests of covered entities and non-covered entities. Whereas the primary objective of covered entities is to purchase sufficient allowances to satisfy their compliance obligations, the objective of non-covered entities is to purchase allowances and subsequently sell them at a higher price. By treating both covered and non-covered entities the same, the holding limit rule does not take into account the fact that a covered entity must retain most (if not all) of the allowances it acquires in order to fulfill its compliance obligations. Therefore, if it is determined that holding limits must be implemented, such holding limits should only apply to the number of allowances in excess of a particular covered entity's compliance obligations. In other words, a covered entity holding the number of allowances equal to its compliance obligation should be treated no differently for holding limits purposes than a non-covered entity that is not holding any allowances. Otherwise, a key policy objective for imposing holding limits (i.e., limiting market manipulation) will be undermined as non-covered entities will be given an advantage over all other participants.

3.3 The Purchase Limit Should Account for Compliance Obligations

The auction purchase limit proposed in the Regulations may lead to market manipulation and the exercise of market power as it could enable certain market participants to increase the price of allowances in the secondary market, thereby harming covered entities required to purchase allowances in order to comply with the law. In particular, insofar as the purchase limit is less than the percentage of allowances a covered entity must acquire in order to satisfy its compliance obligations, such covered entity will be forced to purchase the remaining allowances in the secondary market. While additional trading in the secondary market would generally be considered beneficial (in that it would increase liquidity and price discovery), this may not be the case where market participants are aware that a covered entity must acquire additional allowances in order to comply with the law. Under such circumstances, non-covered entities will have an incentive to acquire as many allowances as possible in the auction with the hope that covered entities will purchase them in the secondary market at an inflated price. Under these facts, the overall liquidity of the market for allowances may actually decrease, while a transfer of wealth will occur from the covered entities to the non-covered entities.

If implemented at all, the purchase limit should provide that all entities may purchase up to an amount equal to such entity's compliance obligation plus an additional buffer (*e.g.*, the 4% limit granted to non-covered entities). This would enable covered entities to acquire all of their allowances through the auction, and would thereby limit the ability of speculators to exercise market power.

3.4 The Holding Limit Further Reduces Market Liquidity

An additional problem with the current holding limit is that it will have a negative effect on the overall liquidity for allowances in the secondary market. Specifically, all covered entities that have compliance obligations in excess of the holding limit will be forced to move into a compliance account a number of their allowances early. Once in the compliance account,

these allowances will no longer be available for trading in the secondary market, thereby reducing liquidity. This will give certain market participants an opportunity to drive up the price of the allowances that remain free for trading. This is of particular concern here due to the relatively small size of the California carbon market.

3.5 The Compliance Account Exemption

Mitigation of Costs. Under the compliance account exemption, allowances deposited in a covered entity's compliance account will not count towards such covered entity's holding limit. The compliance account exemption, however, fails to adequately mitigate the increased costs resulting from the holding limit rule that are imposed on covered entities with compliance obligations in excess of the holding limit. In particular, instead of enabling a covered entity to purchase its allowances based on rational economic analysis, it forces covered entities to buy their allowances periodically, and to move them to its compliance account where they will no longer be available for trading or hedging.

Compliance Obligations. The compliance account exemption does not address a fundamental inconsistency in the application of the holding limit rule that relates to covered entities. In short, covered entities who have compliance obligations in excess of the holding limit will generally adopt a strategy of purchasing their allowances throughout the entire year (so that they will be able to periodically move allowances to their compliance accounts), whereas other covered entities will have the flexibility of purchasing a larger percentage of their allowances at once when economic conditions make it favorable to do so.

Covered versus Non-Covered. Lastly, all allowances held by the covered entities, including those needed to satisfy their compliance obligations, count toward the limit under the holding limit rules. Nothing in the compliance account exemption addresses this disparate treatment between covered entities and non-covered entities, and consequently, non-covered entities continue to enjoy more flexibility and discretion than covered entities.

Solution. In our view, the most appropriate manner to address the increased costs and added burdens imposed on covered entities by the holding limit is to exclude from the holding limit the number of allowances needed by covered entities to satisfy their compliance obligations. In other words, a covered entity holding the number of allowances equal to its compliance obligation should be treated no differently for holding limit purposes than a non-covered entity that is not holding any allowances.

4 Auction Frequency

Our research demonstrates that the European Union, Germany, France, the United Kingdom, and the U.S. (in the case of Treasury auctions) hold auctions more frequently than on a quarterly schedule.[22] As discussed below, holding frequent auctions is desirable for a number of reasons, including improved liquidity and price discovery in the secondary market, thereby reducing the risk of market manipulation and market abuse.

[22] See Section 1 (Summary), Table 2

4.1 Frequency Schedule Proposed in Regulations

Section 95910 of the Regulations provides for allowance auctions to be held quarterly.

4.2 European Union Emissions Trading System

According to the EU ETS Auction Regulation, the common auction platform will hold auctions at least weekly for EUAs and at least once every two months for EUAAs.[23]

From the Commission's point of view, a relatively high frequency of auctions achieves several objectives. First, by providing a consistent and continuous supply of new allowances to participants, it limits the impact each auction will have on the functioning of the secondary market. This is a critical element in controlling price volatility and supporting efficient price discovery. Second, frequent auctions reduce the risk of market abuse by limiting the value at stake for participants in individual auctions, because each participant will be able to promptly adjust its trading position in the next following auction.[24]

4.3 Germany

For allowance auctions during Phase II of the EU ETS, the German EHVV 2012 provides for auctions to be held on a weekly basis until the total volume of allowances to be auctioned per year (40 Million allowances) has been auctioned.[25] Until 2012, 870,000 allowances are subject to these weekly auctions; in 2012, the quantity will be increased to 945,000.[26] From 2013 onwards, auctions will take place in accordance with the EU ETS Auction Regulation, which requires a weekly frequency as summarized above.

An explanation for the German approach in favor of a highly frequent auction model can be found in the Umweltbundesamt Study, which argues that a scheme with a relatively high frequency of auctions is advantageous for hedging strategies as well for reducing potential cash-flow-strains for participants.[27] In addition, given the potential for substantial price volatility of allowances, a model providing for a higher frequency of auctions may reduce the risk of extraordinary costs of the bidders and extraordinary profits of the offerors.

4.4 France

In France, the frequency of auctions has not yet been determined. However, the Charpin Report states that for Phase III of the EU ETS, which will take place from 2013-2020, "at a minimum, given the amounts involved, the auctions should be organized monthly."[28] The Charpin Report highlights the correlation between the frequency of auctions and the functioning of the secondary market, and emphasizes the importance of frequent auctions in order to limit price volatility, allow price discovery at regular intervals, and to allow for price anticipation by the secondary market. In addition, it notes that frequent auctions are a way of

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[23] *Cf.* Article 8 (4), EU ETS Auction Regulation.

[24] *See* recital no. 18, EU ETS Auction Regulation.

[25] *See* Article 2(2) EHVV 2012 and Section 1 (Summary), Table 2.

[26] *Id.*

[27] *Supra* n. 11, at 8 para 2.1.1.

[28] *Supra* n. 13, at 35.

limiting budgetary risks for the "issuing State" by providing greater predictability of anticipated revenues. The Charpin Report also notes that any increased costs incurred as a result of frequent auctions should be offset by the benefits obtained in terms of reducing the risk of market manipulation.

4.5 United Kingdom

The legislative framework for Phase II auctions in the UK is comprised of The Community Emissions Trading Scheme (Allocation of Allowances for Payment) Regulations 2008 ("**CETSR**") and The Community Emissions Trading Scheme (Auctioning of Allowances) (no.2) Scheme 2009 ("**CETSS**").

Under s.3(3) CETSS, an auction of allowances must be announced at least two months in advance, but there is no requirement to hold auctions at a particular frequency. In practice, however, auctions have been held every one or two months since the first auction in November 2008 (see http://www.dmo.gov.uk/index.aspx?page=ETS/AuctionInfo for details). There have been 16 auctions to date, and five more are scheduled for 2011.

4.6 Additional Considerations

In addition to the arguments for frequent auctions set forth above, a number of other arguments are worth highlighting:

European Federation of Energy Trade. In a technical paper on the EU ETS auction design by the European Federation of Energy Trade ("**EFET**"), EFET argues for daily or weekly auctions at constant volumes in order to provide a consistent supply of new allowances without affecting the secondary market price signal. High frequency of auctions would also reduce the amount of financial speculation, and keep the market liquid, ensuring fair access for smaller bidders who wish to buy allowances. The removal of these potential problems will also enable the auction system to remain simple, as fewer rules will be required (for instance, neither maximum bid volumes nor ring fencing allowances for non-competitive bidding would be necessary).

World Wildlife Fund. In a report commissioned by the World Wildlife Fund,[29] monthly auctions were recommended as a minimum (weekly auctions were also recommended). The advantages cited were similar to those already mentioned (including reducing market abuse), but also included: (i) reduced government risk in setting a date for an auction when the price of carbon is particularly low: instead the prices/revenues reflect the average allowance price over time; (ii) participants can buy allowances at the same time as they fix their output price, lessening price risk; and, (iii) if collateral is required, then smaller bid volumes with increased auction frequency will ensure that even those smaller bidders without access to large amounts of collateral can buy at auction.

[29] World Wildlife Fund, *Auctioning in the European Union Emissions Trading Scheme* (Sept. 2007), available at http://www.wwf.eu/climate/publications_climate/?115560/Auctioning-in-the-European-Union-Emissions-Trading-Scheme.

4.7 RGGI

The RGGI model rule provides for auctions to be held on a quarterly basis. Because the RGGI model rule was designed in 2006/2007, it does not reflect recent developments in the carbon markets of the European Union, Germany, France, the United Kingdom, or. In addition, due to the relatively low trading volume for RGGI, the quarterly auction schedule remains largely untested. For these reasons, we strongly believe that it would not be advantageous or appropriate for the ARB to replicate RGGI's model rule for quarterly auctions.

* * *

We thank you for this opportunity to comment on the Regulations.

Yours sincerely,

Jean-Philippe Brisson
Senior Counsel
Head, U.S. Climate Change Practice
Member of the New York Bar
Linklaters LLP, New York

Stan Renas
Partner
Head, U.S. Commodities Practice
Member of the New York Bar
Linklaters LLP, New York

Chris Staples
Partner
Member of the Law Society of England and Wales
Linklaters LLP, London

Dr. Markus Appel, LL.M.
Counsel
Rechtsanwalt, Fachanwalt für Verwaltungsrecht
Linklaters LLP, Berlin
Admitted to Berlin Bar

Fanny Mahler
Avocat au Barreau de Paris
Linklaters LLP, Paris

Schedule 1
Additional Information

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Together, we have advised governments, companies and international organizations on the full spectrum of policy issues associated with climate change. In addition, we have worked on more than 150 carbon transactions covering a wide range of structures and have a deep understanding of markets.

The key strength of our Climate Change Practice is that it is a truly integrated discipline. We harness the full range of skills and experience necessary to give comprehensive advice to our clients, leveraging our unique understanding of carbon markets around the world.

We are active members of ISDA, IETA and CMIA and contribute regularly to the development of new market standard trading documentation.