

US Senate Hearing 12 May 2009 on the Strategic Petroleum Reserve (SPR)

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Mr Chairman, Ladies and Gentlemen

1. Thank you for inviting me to give you the views of the International Energy Agency on emergency policy and strategic reserves.
2. IEA policy for Energy Security considers both short and long term supply security. For the long term we focus on diversification of sources, adequacy of investment and energy savings. But even if we do all that for long term energy security, we can still be confronted with the potential for a sudden interruption in oil supplies. Geopolitical conflict, internal conflict in a producing country, hurricanes, earthquakes, strikes and myriad other incidents can all affect oil flows.
3. One of those incidents in the past, the Arab oil embargo against certain OECD countries in 1973, demonstrated OECD countries' vulnerability. This event triggered a long lasting recession. In response, the US Secretary of State, Henry Kissinger at the time, took the initiative to create a defence mechanism, and the International Energy Agency was established.
4. The founding treaty obliged all member countries to create emergency petroleum reserves of 90 days based on their previous year net imports and to have demand restraint measures at hand. The treaty also created a solidarity mechanism: if one, some or all of the member countries are confronted with a sudden supply disruption, all member countries would take collective action by making oil available from their reserves and reducing their demand if the situation warranted it.
5. This mechanism proved to be useful. Knowing that OECD countries were less vulnerable as a result, producing countries came to understand that threats to disrupt supplies, or even actual supply disruptions, became less effective. Relations between producing countries and consuming countries improved, resulting in a continuous dialogue on oil security issues. Geopolitical tensions are still there, but on the whole relations are more productive. When a supply disruption occurs, it is now standard practice that we immediately contact the OPEC Secretariat and key producing countries to assess the situation together and to determine whether they are willing and able to bring additional production on line.
6. That's not to say that the defence mechanism of the IEA is no longer needed. There are still substantive risks of supply disruptions and OPEC countries are not always in a position to provide additional relief. Indeed, the last time the strategic reserves were used was unrelated to geopolitics. When Hurricanes Katrina and Rita devastated production facilities in the Gulf of Mexico, refineries on shore and the power sector, all IEA countries acted in solidarity, drawing on their strategic reserves and providing the US with products that were in extremely short supply. The response was quick

and effective, demonstrating the worth of IEA emergency preparedness and the quality of its Members' commitment to collective solidarity.

7. As I previously noted, the IEA treaty obliges all members to maintain reserves of at least 90 days of their net imports. There are different ways in which countries can fulfil this requirement. Some countries oblige industry to hold reserves; others have created government-owned reserves. And some countries have a combination of both. Over time, we see a positive trend towards countries holding segregated public reserves. In 1984, 10 countries out of the 21 members at that time had public reserves. This year, we expect that 20 out of 28 members will have public reserves. Another figure: at the start of 1985, 23% of total reserves were owned by public bodies. We are now close to 37%. This increase is strengthening our ability to react promptly and concretely.
8. Emergency stocks are still very relevant. I made reference to the last time the IEA called for a collective action - in the aftermath of the Hurricanes Katrina and Rita. While the last time the IEA released emergency stocks was in 2005, since then the IEA has been on alert several times, not only in the 2008 Hurricane season when Gustav and Ike hit the Gulf coast in rapid succession, but also because of incidents that have taken place in Iran, Iraq, Nigeria, in Russian pipelines to Europe and as a result of industrial actions.
9. These alerts have been in addition to regular crisis simulation exercises. The capabilities of IEA countries to react quickly to global supply disruptions are tested on a regular basis. The last exercise was held in June of last year, with the participation of all 28 IEA Member-countries and 14 non-member countries.
10. Notwithstanding the above discussion, emergency reserves are not only created to react to international supply disruptions. They have proven to be an effective response to domestic disruptions as well. Industrial actions in parts of Europe have led to strategic releases. And the US has made recourse to its reserves to offset logistical problems. In this decade alone, the US used the SPR on 10 separate occasions to give relief to refineries when their supplies were disrupted. In such cases the oil is loaned from the SPR, not sold. When the disruption is over, oil companies that received oil return the oil with some additional quantity as a kind of interest payment.
11. We are often asked: if emergency stocks can be used for domestic supply disruptions, why not use stocks to bring prices down when they spike? We think that to use the reserves for price management is dangerous territory and would fail. The market is currently aware that emergency stocks can and will be used during any severe supply disruption. This in itself helps to limit the price exuberance that can result in large spikes when there are physical disruptions. But, a policy of releasing oil to counteract high prices would add an additional source for speculation. Had we released stocks during the 2004 price shock, there probably would have been a very short term dampening effect on prices, but the reverse could also have happened, for example, had the market worried that stock draw was reducing our strategic reserves and providing a negative incentive to invest in new supplies or improve efficiency, making the fundamental supply/demand situation even worse. As it turned out, we would also have been less prepared for the real supply disruption that occurred in 2005 and refilling of SPR's would have been at record prices.

12. Let's focus now on the US SPR from the IEA's point of view. Today it is rapidly approaching its current capacity of 727 million barrels, covering 61 days of net imports. In 1985, just before domestic production in the US began to steadily decline – the SPR represented 116 days. Even though the volume of SPR oil today is well above the amount back then, the number of days of net-imports it represents has declined considerably.
13. Although the US has no obligation on industry to hold stocks, there are of course commercial reserves in the US, which currently stand at about 75 days, so in total the US is more than compliant with IEA rules. But compliance results to some extent from voluntary commercial stock holding by industry, and most of those stocks are needed for day-to-day use. They are an important part of maintaining the supply and demand balance, their amounts are subject to fluctuations in market conditions, and are not volumes of additional oil that can be readily brought to market through emergency measures when markets are disrupted.
14. The issue this Committee is discussing today is the composition of the SPR. Currently the SPR holds mainly crude oil. It is all located near the Gulf Coast, the most hurricane-prone, vulnerable region of the United States. There is also a small heating oil reserve of 2 million barrel in the North East, for extremely cold winters. The damage of Hurricanes Katrina and Rita in 2005 exposed some vulnerabilities of the SPR. For one, if all oil is stored in the same region, this oil cannot be moved if the region is cut off. And secondly, having crude oil will provide security only if there is enough refining capacity to process the crude oil. In the aftermath of Hurricanes Katrina and Rita, product supply became critical because refining capacity and the power sector were severely damaged. One million incremental barrels per day of products had to be shipped from Europe and Asia to give appropriate relief to the US market. Therefore, in its review of US emergency preparedness in 2007, the IEA advised the US to consider holding product stocks as part of any expansion of the strategic reserves and to place a significant share of crude and product reserves away from the Gulf of Mexico to reduce their vulnerability to extreme weather events. Hurricanes Gustav and Ike this past summer reminded us of the relevance of this recommendation.
15. So while the IEA welcomes the expansions of the SPR, we believe that doing so by only adding more crude volumes to the SPR storage in the Gulf of Mexico would not effectively address the specific vulnerabilities underlined by recent hurricane seasons. Instead, we believe that additional SPR barrels in the form of finished product and held in strategic locations throughout the country, ready to be utilized when refineries or distribution networks are disrupted, would bring greater additional security for each dollar spent than purchases of additional crude oil.
16. The proposal currently under consideration is to hold 30 million barrels of product stocks. If held in the form of finished motor gasoline, the single largest product consumed in the US, this would equate to a little over 3 days of consumption. Holding strategic reserves of product stocks is not uncommon; many IEA Member countries hold them, and just recently we have seen media reports about China's intention to hold some 70 million barrels of product stocks, or about 9 days of consumption, by 2011.

17. European IEA member countries which are also members of the European Union have a requirement to hold a large portion of their stocks in products, based on EU regulations. These require all EU members to maintain, through a combination of public stocks or requirements on industry, 90 days of consumption of gasoline, middle distillates and fuel oil. While a portion of this requirement can be met with the holding of crude stocks, the result is a significant portion of emergency stocks are held as refined products. Currently, some 55% of all public stocks held in Europe are in the form of product. For example, Germany's stockholding agency, EBV, holds over 180 million barrels of strategic reserves, nearly half of which is made up of diesel and gasoline, and spread out over the country's different regions. In France, the stockholding agency SAGESS holds over 103 million barrels of strategic reserves. Two thirds of this stock is diesel held in storage facilities throughout the country. SAGESS also holds 12% of its stock in the form of gasoline, with a good share of this being held in salt domes in the south of France.
18. Outside of Europe, Japan and Korea are the other IEA member countries which hold strategic reserves of product stocks. In addition to holding public stocks of some 320 million barrels of crude oil, Japan holds a little over 7 million barrels of public LPG stocks. This is on top of its obligation on industry to hold at least 70 days of oil stocks in proportion to their imports. Furthermore, following the lessons learned from the IEA's 2005 collective action and as part of Japan's new national energy strategy, the Japanese government has been preparing the introduction of a new system for holding public product stocks. Korea also holds a portion of its public stocks in refined products and requires its industry to hold minimum levels of product stocks. Of its some 81 million barrels of public stocks, nearly 12 million barrels are in the form of products, mostly middle distillates. These are held at storage sites located throughout the country.
19. How public product stocks are held varies across the different member countries. As said, France holds stocks of gasoline in underground salt domes, but for the most part product stocks are held in above ground tanks which are either owned by the public stockholding agency or rented from industry. Public product stocks are sometimes held in commercial tank farms, either in separate tanks, as is the case in Germany, or commingled to some extent with the oil of industry, as for example in the Czech Republic. New storage can be developed when existing capacity is insufficient; in Spain the agency CORES recently commissioned the building of storage capacity to increase its public stockholding cover, including middle distillates, from 30 to 40 days.
20. Of course, oil supply security has a price and strategic product stocks more so. For a typical European country with virtually no domestic production, the yearly running costs (without capital costs related to the buying of the oil itself) stand at about \$ 3 per barrel stored. In most European countries the financing is done by a special levy on the sale of petrol of less than 1 US cent per litre. In other European countries, costs are paid by the government budget, equating to about \$ 5 per inhabitant. In Japan, where space for storage is limited and thus expensive, strategic stockholding of crude oil is estimated to cost just over \$ 2.5 per barrel.
21. In the US, the running costs for the SPR are about 20 US cents per barrel stored – considerably lower than in Europe or Asia. This can be explained primarily by the

favourable underground storage possibilities, whereas elsewhere above ground tanks are dominant or even floating storage, such as in Japan, is necessary. The fact that the US SPR is almost entirely crude oil is another reason for the lower cost per barrel, as refined products are more costly to store. As the financing of the US SPR is through the government budget; there is no levy at the pump for this. The running costs are therefore some 50 US cents per inhabitant, about 10% of the running costs elsewhere.

22. The US system is thus very efficient, and the US taxpayer has received a great deal of security for the money spent on it. Such a savings, in comparison to other IEA member countries, leaves scope for the US to expand the SPR with product stocks, and still maintain running costs well below that of other member countries. For example, if the US were to hold 30 million barrels of product, and assuming the operational costs would be around the same as in Europe at \$3 per barrel, the total cost of running the SPR (crude and product) would rise from 20 to 30 US cents per barrel, or about 75 cents per inhabitant.
23. I have also been asked to comment about how the decision is taken in various member countries concerning when to use strategic stocks. I know that for the US, this is taken at the highest level possible, that of the President. For the most part, in other IEA member countries, such a decision is taken at the level of the minister responsible for energy matters. In some cases, consultation with a council of ministers is required before a final decision is made.
24. In conclusion I would like to say that although the SPR system in the OECD countries dates back 35 years, it has evolved along with market realities and is even more effective today. The knowledge that we can supplement supply quickly when faced with a sudden supply disruption has a calming effect on oil markets.
25. Looking at the SPR of the US: the current level is an enormous volume. But we have to realize that the US alone consumes about 25% of all oil produced globally. In terms of days of net imports, the SPR alone is well below the 90 day minimum that IEA member countries are committed to hold. Therefore, we wholeheartedly support the expanding of the volume of oil held in the SPR. However, the current SPR stocks are concentrated in the Gulf of Mexico and almost entirely in the form of crude oil, so the use of the SPR is vulnerable to events, such as hurricanes, which can take away the ability to refine the oil into a product useful for consumers. Therefore, we encourage the US to procure additional SPR barrels in the form of product stocks, held in storage more geographically spread across the country.
26. US taxpayers have benefited from the SPR; not only during the two collective actions of the IEA, but also on numerous occasions when the market confronted domestic disruptions. The US SPR ranks amongst the most efficient reserve agencies globally, providing a high degree of oil security to the US for only 50 cents a year per citizen. The SPR, by expanding from its current level through the addition of refined products, could significantly enhance security of supply and still maintain costs per barrel of public stocks at levels well below those of other member countries.
27. The SPR of the US has served as a model for many other countries within the IEA and beyond, notably in Asian countries like China, India and ASEAN states, which are currently developing or considering similar emergency reserves. In a time of

heightened volatility in energy markets, the SPR should continue to uphold the same mission and ambitions as when it was first founded some 35 years ago.

Thank you for your attention.