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Opinion paper

An old climate war

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Abstract: During the 1990s a 'war' was fought over climate change between the author and some (not all) of his senior colleagues at the World Energy Council. There were two strands to his work: serious energy analysis and consideration of possible futures; and potential climate change. In the latter role he came up against stringent and often ill-informed criticism of his work and actions. Ill-informed because the critics did not appear to be aware of the serious and widely supported (within the WEC) published works of the WEC; and were frequently incorrect in what they claimed the author had said or written, or wrongly attributed to him actions by others outside the WEC. The record of relevant WEC publications, and the attacks made by those seeking to deny climate change or obfuscate debate on the related issues from the American Petroleum Institute, Global Climate Coalition, and US Climate Council, are related here. Everything here is based upon written records (unpublished as well as published) in the author's possession and his recollections.

Keywords: climate change; deniers; seeking objectivity; hostile responses

1. Introduction

This paper sets out the history of what usually seemed to be strident but ill-informed criticism by some individuals and their USA-based organisations in the period 1994–1998 of work conducted within the World Energy Council relating to climate change. It is based upon original documents still in the author's possession. The paper's title is a reminder of Michael Mann's remark:

"When it comes to the war on the science—that is, the *old* climate war—the forces of denial have all but conceded defeat. But the new climate war—the war on *action* is still actively being waged" [1].

There is plenty of media evidence that the old climate war still lingers on in some quarters. This paper contains elements of both the old and new climate wars, each of which continue to have relevance to current debates in the media. This paper offers the reader material to judge the passage of both wars on the ground, as Naomi Oreskes and Erik Conway have put it:

"Often we find that, in the end, it is best to let the witnesses to events speak for themselves" [2].

So first some background, then in Section 2 an outline of the work conducted relating to potential climate change at the World Energy Council (WEC) within the much broader global energy field in the period 1989 to 1998. Then in Section 3 the aftermath of hostility to that work which had emerged from June 1993 and which finally led to my removal from the WEC as recorded in various documents and quoted here.

It was September 1990 and I had greatly enjoyed over 15 years in the Royal Dutch Shell Group, initially as Group Chief Economist, then in Shell International Petroleum as Head of Planning and of Oil Supply Appraisal in mainland Europe, followed by Director of Oil Supply and Trading in Sweden, and Head of Oil Pricing in Shell International Supply and Marketing in a period of turbulence. But now it was time to move on from Shell UK, where I had first had contact with the World Energy Council (WEC) through its UK Member Committee, and attendance at its 14th Congress, held in Montreal in 1989.

I didn't fancy being Head of Crude Oil Acquisition in Shell Nigeria, certainly not at the age of 50 when I might be hanging around until late at night hoping (perhaps unsuccessfully) to see a Minister. I did not consider myself suited to being No. 2 in the Public Affairs (i.e. Public Relations) side of Shell International—what would I say if expected to speak about a policy, action or statement I disagreed with? There appeared to be internal problems at a business school where there was apparently a wish for me to become their first Director. My wife and I had just come back from this last potential post and we were out to dinner with the World Energy Council's Secretary General, Ian Lindsay, and some of his associates. My wife explained to Ian where we had been and why, Ian invited me to see him the next morning, and I became Deputy Secretary General of the WEC, on secondment from Shell for two years. I did not return to Shell.

The World Energy Council was founded in 1923, initially with Member Committees in some 40 countries (later to rise to nearly 100), including both governmental and non-governmental bodies, with the principal objective "to promote the sustainable supply and use of energy for the greatest benefit of all people." The World Energy Council claims: "Throughout history, it has never strayed from the initial concept of an organisation that is impartial, objective and realistic." Yet, as this paper will demonstrate, there was a period during the 1990s when this claim had dubious validity.

My personal background had been the University of Oxford and London School of Economics; banking and finance in the City of London; manager of an economic consultancy partnered by five professors of economics; and Deputy Director of the UK-based Industrial Policy Group composed of over twenty Chairman of major industrial companies—one of whom was Sir David Barran, Chairman of The Royal Dutch/Shell Group of Companies as it was then known. Annex 1 provides a list of people named in this paper, and their relevant affiliations at the time for ease of reference.

My interest in the weather and climate originated at a boarding school in England where I was appointed school meteorologist, was followed up by reading and following the emerging climate change debates which *inter alia* involved meeting leading world experts in the field during the 1970s and 1980s. While in Shell's Group Planning, I was responsible for providing inputs on global economic, geopolitical, and societal prospects among which the effects of climatic change, major volcanic eruptions, and pandemics formed a part.

At an early point in the World Energy Council (WEC) I got involved in writing the report of a WEC Commission entitled: "Energy for Tomorrow's World—the Realities, the Real Options and the Agenda for Achievement", which was published in 1993 [3]. The Commission was a body set up by

the World Energy Council's leadership which comprised nearly fifty people "eminent in his or her own field" [3, page 19)] eight regional groups (the North American Group alone comprising fifteen people), a Project Management Unit (of which I was a member), and four Special Advisers. The Commission's goal was entirely consistent with the WEC's "mission" from its beginnings in 1923.

I had not anticipated having to write "the complete document in preparation for the Publishers" but was happy to do so. Michael Schomberg (then editor of the WEC's Survey of Energy Resources) took on the formatting in what the book's Acknowledgements described as "a prodigious task completed under severe time pressures." [3, page 20]. There were many individuals and regional groups which helped in the endeavour. Topics covered included the recently formed Intergovernmental Panel on Climate Change (IPCC); and four "cases" or scenarios going out to 2020 (including "Ecologically Driven" Case C). As stated on page 308 of the WEC Commission's Report, the implications of its Cases for atmospheric concentrations of carbon dioxide and change in global-mean temperature "were calculated by the internationally respected Climate Research Unit of the University of East Anglia ... work undertaken by Professor T.M.L. Wigley and Dr. M.Hulme." (page 308) The WEC Commission's Report added: "It is stressed that these Cases and estimates based upon them are for illustrative purposes only. They illustrate that if the hypothesis about enhanced global warming and potential climate change is broadly correct then, using a highly respected research unit and climate model, the consequences are likely to be as set down here."

For the purposes of this paper probably the most important aspect of the Commission's Report was its advocacy at numerous points of the need for precautionary measures to be taken to curb emissions given the risks of anthropogenic climate change. For example: "Precautionary measures to reduce the emissions of greenhouse gases should be adopted since scientific evidence does not so far justify any other policy." [3, page 304] As this paper proceeds it will be seen that my critics at that time, attacking me for what they claimed I wrote or said, or contributions from those on the WEC committee I chaired, were acting, writing, and/or speaking in flagrant contravention of what the WEC Commission had agreed and published. However, I had been warned early on by WEC Secretary General Ian Lindsay in a handwritten note dated 11th June 1993:

"The practical interpretation of the WEC's various policies and the stance likely to be taken by the major WEC supporters (Member Committee members) will not necessarily agree even with what has been written into the WEC Commission."

This was only a fortnight after WEC Chairman Gerhard Ott had congratulated me and the WEC's Commission on our excellent work. No mention was made at the time to the fact that the WEC Commission's Board was not free of views diametrically opposed to the Commission's published report. One such Board Member was the President of the US National Coal Association who, according to a handwritten note by Ian Lindsay dated July 30th 1997, regarded the Byrd/Hagel US Senate Resolution (which opposed the USA signing any protocol under the UN Framework Convention on Climate Change unless it satisfied certain conditions) as the "Ace of Spades".

In early 1994 a WEC booklet: "Global Emissions Cases" was issued, which ended with the following paragraph:

"The WEC Commission, noting in particular the key uncertainties and further work identified by the IPCC in its Supplementary Report on Climate in 1992, took the view that on balance precautionary measures are required now in respect of potential climate change. It is against this background that the WEC Commission's emissions cases have been outlined here" [4].

This booklet also made reference to further work using the WEC Commission's data carried out by Gregg Marland of Oak Ridge National Laboratory which did "not produce a markedly different outcome."

An extract was included from the IPCC's "Climate Change 1992: The Supplementary Report to the IPCC's Second Assessment" [5]. John Houghton was one of the three Editors of this last report, who had invited me (in my role in the World Energy Council) to join in the discussions and meetings of the IPCC back in October 1991. John became Chairman of the IPCC's Working Group 1 (the Scientific Assessment) and drew on "Energy for Tomorrow's World" in the first two editions of his book: "Global Warming: The Complete Briefing" [6].

A few months later I met the IPCC's Chairman (1988–1997), Bert Bolin, whose calm approach to the subject of potential human-induced climatic change appealed to me, given some of the uncertainties with which this subject was, and still is, surrounded. As Professor Bolin wrote in his book: "A History of the Science and Politics of Climate Change": the WEC was a "key international organisation that responded early to the potential threat of a human-induced climate change." Here he was referring to "Energy for Tomorrow's World" and its scenarios—"the work went beyond the IPCC efforts" (at that point of time). "The comments from the WEC on the first draft of the chapter on scenario development in the 1994 IPCC special report were sharply critical and admittedly the WEC scenarios were more informative"—than "the first draft of the chapter on scenario development in the 1994 IPCC Special Report" [7, page 93].

As Bert mentioned, these WEC "projections were later extended to 2050 and 2100 in collaboration with the International Institute for Applied Systems Analysis", an organisation based in Laxenburg, Austria. These WEC/IIASA joint publications were: "Global Energy Perspectives to 2050 and Beyond: Report 1995" [8], and "Global Energy Perspectives", 1998. [9] This work took up much of my time in the period 1995–1998, although the inputs of Nebojsa Nakicenovic and his IIASA colleagues was critical—Professor Nakicenovic being Study Director of the first report, and one of the three IIASA Editors of the second. I was a Lead Author for both. Interestingly, Gerhard Ott, who had been Director of the German Coal Industry Association and had become Chairman of the World Energy Council, had his name attached to both reports despite (as some of the documents referred to below indicate) clearly not being enthusiastic about the WEC discussing the subject of climate change and tending to support the hostile comments coming from some USA-based critics. This was despite the care taken to check for objectivity and care in the scenarios and related analyses.

The other major energy publication in that period had been: "New Renewable Energy Resources: A Guide to the Future", 1994 where Jack Darnell from the World Energy Council's US Member Committee had primary responsibility for the content, supported by over 80 specialists, and where he and I were the General Editors. Jack wrote much of the Overview and Solar Energy chapter, while I added input on environmental and efficacy aspects, especially in relation to wind and tidal energy [10].

2. Climate meeting reportage

In a history of the WEC: "From World Power Conference to World Energy Council: 90 Years of Energy Cooperation, 1923–2013" published by the WEC, it was stated:

"By the end of the 1980s, environmental concerns had moved to the centre of WEC's agenda. Environment Dominates 91-Nation Energy Talks', the *New York Times* summed up the 14th Congress held in Montreal in 1989. It noted how the 'worry at this triennial event has shifted from oil embargoes and declining reserves of fossil fuels to urban smog, acid rain and, above all, global warming" [11].

The *New York Times* headline was in fact slightly different but had the same meaning: "Environment Is Focus of 91-Nation Talks." The WEC history went on:

"The 1989 meeting marked a paradigm shift. As Elihu Bergman, executive director of the Americans for Energy Independence, a conservation group, noted "you would never have heard this three years ago. This conference is symbolically legitimizing what we have known in the States: environmental policy is driving energy policy" [11].

The "catalyst" for this shift was stated to be the appearance of the Brundtland Commission report: "Our Common Future" in 1987 and the creation of the IPCC the following year. Following the subsequent Rio Earth Summit (1992) and Kyoto Protocol (1997): "In these years, sustainability came to be foregrounded at WEC." In fact, as this paper demonstrates, this history of the WEC is rather misleading [11].

Potential climate change, induced primarily from fossil fuel use and resulting carbon dioxide and methane escape into the atmosphere, was an element in all the above work which had been primarily focussed on energy supply and usage. Now came the reports of WEC Working Group 4A: ENVIRONMENT: Potential Climate Change, of which I had been appointed Team Leader by the WEC's Studies Committee. The purpose of these reports was to inform the WEC's member committees (nearly 100 of them) around the world of what was taking place. Although all were written by me, some of the meetings reported on were attended by other members of the Working Group, who also had access to third party reports. The information provided came from spoken or written inputs into the various meetings covered, and responses to questions raised by me to attendees of these official meetings of inter-governmental bodies. A summary list of the WEC reports covered in this section is provided in Annex 2 at the end of this paper to help guide the reader.

The first report: "Post-Rio '92—Developments Relating to Climate Change" was issued in April 1994. It stated that: "The principal purpose of Working Group 4A is to monitor and report back to the WEC on all major post-Rio '92 developments in the field of possible global warming and climate change." The report mainly focussed upon the events leading up to the ratification of the UN Framework Convention on Climate Change (UNFCCC) in March 1994 and the work of the IPCC, but also covered recent scientific/technical findings which had appeared in leading scientific journals, the work of the UN Commission on Sustainable Development, and meetings of bodies covering biodiversity and new and renewable sources of energy (the UN Committee). The WEC report mentioned the challenges confronting climate modelling and that comments had been made by WEC Working Group 4A to the IPCC relating to "points of wording which lacked balance."—because of an apparent unwillingness to accept the uncertainties surrounding an unknowable future [12].

In November 1994 a second draft report was circulated but, due to opposition by the WEC's Control Panel, was not issued in that form. The draft was twelve pages in length, plus seven pages of Appendices—two pages listing countries which had ratified the UNFCCC, two pages listing the chapters and sections of the IPCC's Second Assessment Report, and three pages listing Key Events Relating to Potential Climate Change. As the Executive Summary put it: "IPCC Reports about to go out for General Review, or recently circulated, are briefly discussed. A tendency to understate continuing uncertainties about the carbon cycle are criticised, and attention is drawn to ineffectual work on emissions scenarios" [13]. This draft report ran into strong opposition on grounds of length

and content, from WEC Chairman Gerhard Ott and others. As Gerhard wrote to me on November 11th, 1994:

"I do regret, of course, that work which you undoubtedly started with all good intentions has led to such an unsatisfactory result."

Gerhard Ott also considered the Working Group reports "too detailed and 'for experts by experts" which went against requests from several WEC Member Committees for plenty of detail. There was always a one-page Executive Summary.

The WEC's Work Group had considered a question raised by one of its members, Keiichi Yokobori, as to whether the Group's reports should include adversely critical comments on the attitudes or statements of specific individuals or organisations, but instead put forward a "more sanitised version".

The Work Group had decided to stick with its critical comments because:

"The Work Group and its associates considered this point with care and at length. They felt that having regard to the known facts, and the poor image of business that two U.S.-based organisations were creating at a time when the INC were seeking to involve business in their deliberations, a bolder approach was justifiable. They also took note of the evidence that one U.S.-based organisation (the Climate Council) and/or its spokesman Mr. Donald Pearlman, were advising the Kuwaiti and Saudi delegations and that Mr. Pearlman had openly claimed to be campaigning for the demise of the IPCC and the removal of Prof. Bert Bolin" [14].

The Work Group's statement went on to recognise that this was a policy matter which should be drawn to the attention of the Control Panel for them to take the decision for, or against, the Work Group's recommendation for inclusion of these references.

It was clear during October 1994 that a campaign had begun from the WEC's USA Member Committee and its associates. On November 2nd 1994 William O'Keefe, Executive Vice-President of the American Petroleum Institute and close to the Global Climate Coalition of climate change deniers and sceptics wrote:

"I have serious reservations about the WEC undertaking this reporting task."

The Secretary of the WEC's US Member Committee, Barry Worthington, took exception to the response the WEC's Central Office had made to O'Keefe, referring to the exchange of "written barbs". This was despite Worthington writing on November 3rd 1994 that the American Petroleum Institute's and Global Climate Coalition's William O'Keefe having written "the best commentary I have received regarding the WEC's Working Group on Potential Climate Change."

It was not until March 1995 that Report No. 2 was actually published, somewhat shorter (at twelve pages) than the original draft but the Executive Summary retained the sentence which had appeared in the draft Report and had aroused the strongest opposition. As was the case with the original draft version the issued report made several adversely critical comments on the recently published IPCC reports. It should not have been charged with uncritical bias in favour of the IPCC.

The WEC's next public input on climate change came as a Statement to the First Conference of the Parties to the UN Framework Convention on Climate Change (COP-1), held in Berlin March 28–April 7, 1995. It pointed out that "some 500 specialists were directly involved in this (the WEC) Commission whose findings on major energy and energy-related issues have now become authoritative within the global energy sector" and "were approved by over 4,500 delegates at the 15th WEC's Madrid Congress in 1992". However, the Statement pointed out that:

"For the majority of people, overcoming local and regional problems has a higher priority than the potential impacts of climate change. Nevertheless, given the continuing uncertainties of climate change, its potential risks must not be downplayed. A 'Minimum Regret' strategy must be adopted with a balance of precautionary measures and further studies" [15].

The precautionary measures included "the development of non-carbon fuel sources."

Report No. 3 covered the proceedings of COP-1, noting that: "There is a clear intention to arrive at a binding protocol for post-2020 anthropogenic greenhouse gas emission reductions by Annex I Parties at COP-3 in 1997". Many small island states considered the Berlin Mandate was neither clear nor urgent enough. The head of the US delegation claimed that in the USA "we are taking action both at home and abroad." Only a few US-based industry NGOs (unhappy with the performance of the U.S. delegation as they saw it) and OPEC member delegations made clear their view that COP-1 went much too far [16]. The WEC Report on COP-1 was intended to report objectively on the various positions and statements that emerged during its proceedings.

Report No. 4 (September 1995) had two objectives: to cover scientific and technical developments in the field of potential climate change since 1992; and to examine institutional developments since the Rio Earth Summit of 1992. Stress was laid on: "The need for caution in commenting upon the possible extent of future climatic change, its causes and consequences, remains unabated." Although it was recognised that modelling had improved during the 1990s particular stress was laid upon: "the predictive capacity of existing climate change (general circulation) models contain considerable uncertainty" [17]. This continues to be the case [18], but we now have much more relevant data on recent changes and their potential significance than were available twenty-seven years ago. This Report, interestingly, had benefited from Sir John Houghton (Chairman, IPCC WGI) and Bruce Callander (Hadley Climate Centre, UK) having read and commented upon it in draft.

Once again William O'Keefe complained, on November 16th 1995, that the WEC's US Member Committee "should take prompt action to resolve what I consider to be a serious conflict between his (Jefferson's) personal views and representations made on behalf of WEC." To that fax O'Keefe attached notes prepared by Bronson Gardener, Science Advisor to the Global Climate Coalition, who had been sent to an IPCC Synthesis Report drafting session in Geneva by the Global Climate Coalition's Director (John Schlaes) and two or three others (unnamed by Gardener in my subsequent discussions with him—but repeated on two successive days) "to shed the worst possible light" Gardener's words on the WEC and me. Gardener's report to O'Keefe formed the basis of the latter's claim to Worthington of my views being in "serious conflict" with the WEC.

In a Note dated January 8th 1996 to John Baker, who had become the WEC's Chairman in succession to Gerhard Ott, and Ian Lindsay as WEC Secretary General, I provided "Response to Gardener, O'Keefe and criticisms of WEC voiced to Barry Worthington":

"The attached Note refutes in detail every single criticism made of the WEC and myself. The evidence shows beyond doubt that I have (without difficulty or conflict of interest) at all times tied myself closely to WEC publications."

The Note proceeded to explain that Bronson Gardener admitted:

"he knew nothing of the WEC's publications and the views contained therein (at least until the relevant publications were given to him by Jefferson on 12 December, 1995); and that when he was asked to compare a couple of paragraphs in WEC publications with his notes he apologised profusely for not having known the WEC's position and wrongly claiming that Jefferson had failed to reflect it accurately."

There appeared to be uncertainty, even ignorance, within the WEC's US Member Committee and among those associated with the Global Climate Coalition about the WEC's published material relating to potential climate change. It was therefore deemed necessary to send this material to Barry Worthington as Secretary of that Committee (his official title was Executive Director of the US Energy Association) on 25th March 1996, attached to which was a fax which reflected concern at the US end that others might have seen the evidence of the ignorance demonstrated by faxes emanating from the Global Climate Coalition and its associates. The covering Note was copied to John Baker (WEC Chairman) and Ian Lindsay (WEC Secretary General) to alert them. But vocal opposition from within the USA nevertheless rumbled on.

Report No. 5: "Climate Change 1995; The Intergovernmental Panel on Climate Change Second Assessment Report Reviewed" appeared in March 1996 and attracted a great deal of attention. It was much longer (36 pages) than its predecessors, commenting on the contributions of all three IPCC Working Groups. The report was heavily critical of some of the IPCC's statements and work, not least in the Policymakers' Summaries and the content of the WGIII contribution (and to a lesser extent that of WGII). However, a close reading of many underlying chapters (particularly in the WG1 contribution) were more cautious than widely portrayed in the media. The WEC's Press Release of April 24, 1996 stated: "the WEC warns that this lack of progress should not be allowed to encourage complacency or inaction." The Report ended with the following sentence:

"It should be placed on record, not so much as a criticism but as a matter of fact, that most of the comments made in this review were brought to the attention of the IPCC Bureau and its Working Group Technical Support Units during the various preparatory stages of the Second Assessment Report by the WEC's main representative in the IPCC's deliberations" [19].

This debate roughly coincided with a fax sent to WEC Secretary General Ian Lindsay on April 1, 1996 by D.P. Bryant, Chairman of the WEC's New Zealand Committee:

"In the words of a number of the participants, the NZWEC seminar on Carbon Dioxide Policy, Taxes and Credits was the best, and the most informative seminar they have attended. This was, in no small measure, due to Michael Jefferson setting the proper tone with a hard but fair critique of the UN Framework Convention on Climate Change Second Assessment Report. The Minister of Energy, who opened the proceedings, stayed much beyond his allotted time (absent from a Cabinet meeting) to listen to most of Michael's presentation. As one of the industrial members of the government's CO₂ working party told me later, this objective approach enables them to wrest the pen from officials who had been drafting policy. The seminar revealed issues some members either had not been aware of, or they had not fully appreciated the consequences. Michael did us a great service for which we are properly grateful" [20].

This reference is provided, along with a later one which arose after the December 1997 meeting in Kyoto, as evidence of the quality and objectivity which I believe characterised these WEC reports. Similar support was provided over the years by several other WEC National Committees.

Report No. 6 mainly focussed upon the proceedings during COP-2, held in Geneva in July 1996. The Report highlighted the statement from the US government's delegation:

"We are not swayed by and strongly object to the recent allegations about the integrity of the IPCC's conclusions. These allegations were raised not by the scientists involved in the IPCC, not by participating governments, but rather by naysayers and special interests bent on belittling, attacking and obfuscating climate change science" [21].

This appeared to be a significant shift in the US official position, but the mood was to change over the following months, not least with the Byrd-Hagel Senate Resolution the following July. More generally, questions arose about the reality of pushing too quickly for tough emissions targets beyond 2000 and the content of any Protocol; developing countries were in many cases unhappy about the consequences of emissions limitations for industrialised countries and their implications for developing countries' exports; and differences remained about the wording of IPCC references to the human attribution of global climate change. WEC Secretary General Ian Lindsay commented negatively on the WEC's Study Group report, in a handwritten note on September 9, 1996: "Frankly there is little of substance to (sic) the average reader. I had great difficulty in forcing myself to read it through." However, Professor Bert Bolin, retiring Chairman of the IPCC, referred to the WEC in his outgoing comments relating to the IPCC's Second Assessment:

"You will find some critical remarks in a review by the World Energy Council (WEC). The press comments focused on these critical remarks and the generally positive reception that the WEC gave to the Second Assessment Report was largely lost" [21, page 4].

Report No. 7 (May 1997) summarised the position as:

"The chances of reaching agreement in Tokyo (December 1997) on a far-reaching Protocol to curb greenhouse gas emissions beyond the year 2000 now seem remote. The negotiating text has got longer rather than shorter, as the number of proposals has multiplied. Debate, disagreement, complexity of proposals, and exhibitions of national self-interest have all intensified in recent months. Although some form of Protocol is likely, because of the powerful political interests involved, ambitious targets and tight timetables for Annex I industrialised country Parties are unlikely" [22].

This report also mentioned that: "Efforts to get non-Annex I Parties (developing countries) to accept specific commitments under the Climate Convention remain deadlocked."

And so to the 32-page Report No. 8: "The Kyoto Conference and Protocol", first issued in December 1997 and updated in July 1998 with more recent emissions data. Although a protocol was produced many important questions were postponed in the hope of later resolution, and it was concluded that much would hang on whether the USA would ratify the Protocol—the WEC Report considering that without US ratification a protocol would be ineffectual. The Report stated: "Circumstances surrounding the run-up to Kyoto, its outcome, and subsequent statements suggest the USA will not hurry to ratify, if it does at all" [23]. The circumstances referred to included the Byrd-Hagel Senate Resolution opposing US support unless Developing Country Parties accepted new specific scheduled commitments.

The Kyoto conference was widely reported at the time but few picked up (because it occurred in the early hours of the final morning of the Conference) the sudden and critical removal of an Article which was intended to provide for developing country Parties to accept the need to curb their emissions. The Conference Chair, Argentina's Ambassador to PC China (Estrada y Oyela), was responsible following intense pressure from some developing country party delegations. The move made US acceptance of the Kyoto Protocol unacceptable in the light of the Byrd-Hagel Senate Resolution. However, a fax received from John Hollins, Executive Director of the WEC's Canadian Member Committee, the Energy Council of Canada, may be found useful in assessing the contents of the next Section of this paper:

"The Honourable John Fraser, Canadian Ambassador for the Environment, addressed the Board of the Energy Council of Canada yesterday. He provided his perspective on the history leading up to

Kyoto, his experience in Kyoto as a member of the Canadian delegation, and his views on where we in Canada should be going.

In preparation for this session, I had provided Mr. Fraser with, inter alia, a copy of WEC Report No.8. Mr. Fraser stated at the end of his remarks that the report was an astonishing piece of work. He vouched for the accuracy of the observations on the events that he had witnessed too, but allowed that he learned a number of very interesting details from the account! He added that the text reads very well and puts the issues objectively. He characterised it as a remarkable piece of work, that no one person on a national delegation could have done." [24].

3. The aftermath

Despite numerous favourable comments the work of WEC Working Group 4A and its Director had come under persistent attack from US-based climate change deniers and sceptics.

Report No. 10: "Instruments for Mitigating Climate Change" (September, 1998) was prepared for the 17th WEC Congress in Houston, and lies outside the main focus of this paper. It was, however, the first generally circulated evidence that I had been removed from my position as WEC Deputy Secretary General—widely considered as the result of efforts to block my work relating to potential climate change—to the post of Director of Studies and Policy Development. I had been suddenly succeeded as Deputy Secretary General by an Australian lady, who sadly died of natural causes within eighteen months. WEC Secretary General Ian Lindsay, who had fallen terminally ill shortly before he was due to retire, had been succeeded by French Canadian Gerald Doucet, who knew something about gas and had been selected by a mix of US members hostile to the work the WEC had done relating to potential climate change; French nuclear interests, it was suggested because I was cautious about nuclear energy solely on safety grounds; and by Chinese and German coal interests. It was clear that efforts to encourage my total removal from the WEC were under way. Following John Baker (later Sir John Baker) as WEC Chairman (1995–1998) was Jim Adam, Chairman and CEO of the Kansas City-based engineering company Black & Veatch.

By November 1998 news had got around that my position in the WEC had altered. However, at COP-4, held in Buenos Aires November 2–13, 1998, I was asked to join the UN Deputy Secretary General and the Head of the UN Development Programme to speak about the WEC and the Joint World Energy Assessment all three organisations were involved in. [The "World Energy Assessment: Energy and the challenge of sustainability" was published in 2000, chaired by Professor Jose Goldemberg—who proved personally very supportive then and for years afterwards, as were several other key contributors—particularly Hisham Khatib.] I was a Convening Lead Author, primarily with responsibility for the chapter: "Energy Policies for Sustainable Development". By that time I had left the WEC. I was also asked to speak about WEC's work of relevance to the proceedings at a Special Event on the last day of the conference. COP-4 itself achieved little, as Report No. 11 duly reported.

However, it may give a misleading impression to claim that in the years 1987–1997 "sustainability came to be foregrounded at WEC" [11, page 50] without mentioning it was characterised by serious dissent. Nor was it correct that in this period "the issue of sustainability has become too narrowly defined as a question of climate change and the influence of anthropogenic carbon emissions." [11, page 53]. That comment was made in 2013, long after my time, but the 1990s had seen the publication of: "Energy for Tomorrow's World", "New Renewable Energy Resources", the major WEC/IIASA works, and several WEC publications on other topics.

On December 14 1998 there was a debate at the UK's Institute of Petroleum, New Cavendish Street, London. The motion was: "This House believe that cost-effective precautionary measures should be taken, starting now, to address the climate change risk, with the requirements of the Kyoto protocol providing a sensible next step in the process." The proposer was me, as Director of Studies and Policy Development, The World Energy Council. It was opposed by William O'Keefe, as Senior Vice President, The American Petroleum Institute (there was no mention of his Global Climate Coalition role on the programme). I do not remember the outcome of the debate.

Things had been changing at the World Energy Council and continued to do so. By June 1999 I had placed my concerns in the hands of the firm of lawyers Clifford Chance as Gerald Doucet continued to be somewhat duplicitous (for instance, a fax dated 14 June 1999 referred), tried to negotiate a contract which would not permit me adequate freedom of thought or action, and then sought to end a three-year contract after one year. He had earlier informed WEC Member Committees worldwide by fax that a new Deputy Secretary General had been appointed and I had become the WEC's Director of Studies, no longer Deputy Secretary General, without consulting me either about my changed role (presumably a demotion) or the fax before it went out.

The WEC's US member committee met on 2 August 1999 and, via a fax dated 9 August 1999 from Executive Director Barry Worthington, expressed "a number of strong concerns" about a "proposed WEC GHG emissions reduction project." This too was intended to be restraining.

To bring this rendering of "An Old Climate War" to an end. Yes, those fighting for denial of anthropogenic climate change or obfuscation of the debate succeeded in getting rid of me from the World Energy Council effectively in 1999, thereby winning that war. But John Baker (later Sir John), Honorary Chairman of the WEC, took steps to ensure I was paid my full three-year contractual financial terms and very successfully chaired the WEC study: "Living in One World" (2001), of which I was "the coordinating author and Director of the Study". This was my last formal link with the WEC. WEC Chairman (1998-2001), Jim Adam, recognised in his Preface that we had marshalled for the reader's attention a large volume of material and opinion about the current and future stresses on vital elements in seeking to maintain a Liveable World. Sadly, he felt it necessary to record that the opinion "represents the strongly held views of many members of The World Energy Council, but not all of them." My successor as WEC Deputy Secretary General had died. Gerald Doucet died in 2008. Little did I know then that in 2007 I would become an academic, and subsequently senior editor of the journal Energy Policy (where I was able to draw on some of the research work with which I had been involved at the WEC as well as my earlier years in Shell), and receive a certificate from the Intergovernmental Panel on Climate Change for contributing to their award of the Nobel Peace Prize in 2007 as a lead author, contributing author, synthesis report drafting team member, editorial and expert reviewer.

4. Conclusions

It is a sad commentary on attitudes towards potential climate change during the 1990s that this war over its likely causes among others at the time, broke out and had lasting consequences. Opponents of open and hopefully objective discussion were able to silence those seeking and pursuing a balanced approach—people who recognised uncertainties but also the huge potential adverse consequences requiring effective policies, measures, and technologies (optimally located). In that Old Climate War of the 1990s hostile forces were able to do far more damage than they should have done. Their activities ran counter to the WEC's claim that "it has never strayed from the initial concept of an organisation

that is impartial, objective and realistic." It was inevitable that the WEC's membership would contain differing, and even conflicting, interests. Some of us made a huge effort to reflect a broader, more objective, view reflecting the full range and balance of the WEC's global membership. The reports issued by the WEC's Work Group on Potential Climate Change mirrored this balance of views, but this paper reflects the backlash which some climate change deniers and sceptics (mainly, but not all, in the USA) were able to inflict. Considering those who are currently responsible for the WEC's work on energy scenarios and the needed energy transition the WEC now seems to be back on track.

Elements of both the 'old' climate war and the 'new' climate war [1] have been covered here. There have been very few published reports of attacks by climate change 'deniers' and those who collaborated with them where the person attacked has retained key documents and is willing to publicise them. In the interests of energy, environmental and organisational history, as well as open communication, the facts should be widely known.

The author would be happy to lodge his own holding of relevant documents with a public academic institution for open access. It is not for him to judge whether, and how far, the troubled pathway he and the WEC travelled in the 1990s had a significant impact on the energy sector.

Conflict of interest

There is no known conflict of interest on the author's part.

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Appendix 1

List of people mentioned and their then affiliation (later titles in some cases):

- Adam, Jim: former WEC Chairman (1998–2001).
- Baker, Sir John: WEC Chairman (1995–1998).
- Barran, Sir David: former Chairman, The Royal Dutch/Shell Group of Companies.
- Bolin, Bert: IPCC Chairman 1988–1997.
- Bryant, D.P.: former Chairman, WEC New Zealand Member Committee.
- Byrd, Robert: former US Senator (1959–2010) of Byrd-Hagel Senate Resolution.
- Callander, Bruce: former climate scientist at Hadley Centre, UK.
- Darnell, Jack: co-editor of WEC report and book: "New Renewable Energy Resources".
- Doucet, Gerald: WEC Secretary General, 1998–2008.
- Fraser, John: former Canadian Ambassador for the Environment.
- Frisch, Jean-Romain: Member of WEC's Work Group on Potential Climate Change.
- Gardener, Bronson: Advisor to the former Global Climate Coalition.
- Goldemberg, Jose: Brazilian physicist, former Secretary of State for Science & Technology and Professor Emeritus at the University of Sao Paulo.

- Hagel, Charles Timothy 'Chuck' former US Senator (1997–2009), US Secretary of Defence, 2013–2015.
- Hollins, John: former Executive Director of WEC's Canadian Member Committee.
- Houghton, Sir John: former Chairman of IPCC Working Group I.
- Hulme, Michael: formerly at Climate Research Unit, University of East Anglia.
- Khatib, Hisham: WEC Honorary WEC Vice-Chairman, former Minister of Energy, Water & Planning, Jordan, former International Advisory Board Member, 'Energy Policy' journal.
- Lawson, Dick: former US General and President of US National Coal Association.
- Lindsay, Ian: WEC Secretary General 1986–1998.
- Marland, Gregg: climate scientist formerly at Oak Ridge National Laboratory, USA and Adjunct Research Professor, Appalachian State University.
- Nakicenovic, Nebojsa: former Deputy Director-General, IIASA, Laxenburg and Professor of Energy Economics, Vienna University of Technology.
- O'Keefe, William: former Executive Vice-President of the American Petroleum Institute and Director of the Global Climate Coalition (after John Shlaes).
- Ott, Gerhard: former WEC Chairman (1992–1995) and Director of the German Coal Association.
- Oyela, Estraday: formerly Argentine Ambassador to P.R. China and Chairman, IPCC COP-3.
- Pearlman, Donald: former member of US Climate Council.
- Richels, Rich: Senior Technical Executive at the (US) Electric Power Research Institute.
- Schomberg, Michael: Editor of WEC's Survey of Energy Resources.
- Seitz, Frederick: US physicist, founder of George C. Marshall Institute, "a prominent climate change denier" (Wikipedia).
- Singer, S. Fred: a prominent climate change sceptic, worked extensively with Seitz, formerly an Emeritus Professor at the University of Virginia.
- Stigson, Bengt: former member of World Business Council for Business Development.
- Wigley, T.M.L.: former Director of Climate Research Unit, University of East Anglia.
- Willums, J-O: former member of World Business Council for Business Development.
- Worthington, Barry: Secretary, WEC's US Member Committee.
- Yokobori, Keiichi: Member of WEC's Work Group on Potential Climate Change.

Appendix 2

World energy council reports from the WEC work group 4A on potential climate change written by this paper's author

Date of Completion	Focus	Response
Report No. 1: April 1994	Focussed on monitoring & reporting on official	Generally
	(INC) leading up to when UN Framework	favourable
	Convention came into force [21 st March 1994]	

No. 2: [Draft: November 1994] Understatement of climate change uncertainties and commitments on industrialised countries.

Objections—not published

No. 2: March 1995 Slightly shortened from draft O'Keefe objected

No. 3: April 1995	Reported on COP-1 proceedings	No open objection	
No. 4: September 1995	Covered developments in climate change science & institutions	O'Keefe, Gardener & Worthington objected	
No.5: March 1996	IPCC Second Assessment Report	No known objection	
No. 6: September 1996	COP-2 and prospects Li	ndsay objected; published	
No.7: May 1997	On track for Kyoto? Published without known objection		
No. 8: December 1997	Kyoto Conference & Protocol	Favourable comments	
(author removed from post as Deputy Secretary General shortly thereafter)			
No. 10: September 1998	Instruments for Mitigating Climate Change	No written objection	
No. 11: November 1998 COP-4 in Buenos Aires: many disputes O'Keefe continues dissent			



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