

AUSTRALIA'S NUCLEAR FUTURE: INTERNATIONAL CONSIDERATIONS

1. AUSTRALIA HAS AN OPPORTUNITY IN THE COMING DECADE TO BRING ITS DOMESTIC ENERGY AND NUCLEAR POLICIES INTO CLOSER ALIGNMENT AS IT ADDRESSES THE FOLLOWING THREE ISSUES:

- WHETHER NUCLEAR POWER WILL BE A COMPONENT OF ITS FUTURE BASE-LOAD ENERGY SUPPLY EQUATION.**
- WHETHER, AND IN WHAT WAYS, IT WILL GROW ITS EXPORTS OF URANIUM INTO A WORLD MARKET EXPERIENCING RAPIDLY RISING DEMAND.**
- HOW, IF IT GOES AHEAD ON BOTH FRONTS , IT WILL OPTIMALLY INTEGRATE THE REQUIREMENTS OF GLOBAL NUCLEAR NON-PROLIFERATION AND GREENHOUSE GAS EMISSION REDUCTION TARGETS WITH ITS URANIUM EXPORT ACTIVITIES.**

2. AUSTRALIA HAS PROVEN RESERVES OF EASILY EXTRACTABLE URANIUM (I.E., AT A COST OF LESS THAN US\$ 40 PER POUND) EQUAL TO AROUND 38% OF THE GLOBAL TOTAL. THE CURRENT WORLD SPOT PRICE FOR URANIUM IS AROUND US\$ 120 + PER

POUND AND IS EXPECTED TO RISE STRONGLY IN COMING YEARS. NEARLY ALL OF AUSTRALIA'S RESERVES LIE IN THE LOW-COST CATEGORY, IN CONTRAST TO MAJOR COMPETITOR SUPPLIERS SUCH AS CANADA AND KAZAKHSTAN. AUSTRALIA ALSO HAS THE SINGLE LARGEST URANIUM RESERVES OF ANY COUNTRY, WITH 28% OF THE GLOBAL TOTAL. IN THE FIVE YEARS TO MID-2005 AUSTRALIA EXPORTED 46,000 TONNES OF URANIUM OXIDE WORTH OVER A\$2.1 BILLION TO ELEVEN COUNTRIES. TODAY, 17% OF THE WORLD'S ELECTRICITY IS GENERATED USING NUCLEAR FISSION AT 441 SITES.

- 3. AUSTRALIA HAS NO INDIGENOUS NUCLEAR ENERGY GENERATION CAPACITY, BUT HAS BEEN A MAJOR SUPPLIER OF URANIUM INTO THE WORLD MARKET FOR MANY YEARS – IN RECENT TIMES SINCE 1981 – AND CONTINUED UNDER THE HAWKE LABOR GOVERNMENT'S 'THREE-MINES' POLICY FROM 1984 TO 1996. IT IS NOTABLE THAT THE ALP REMOVED THE "THREE MINES POLICY" AT ITS RECENT NATIONAL CONFERENCE IN SYDNEY. AUSTRALIA IS CURRENTLY RE-VISITING ALL ASPECTS OF THE URANIUM FUEL CYCLE FOR POSSIBLE APPLICATION IN POWER GENERATION, PRIMARILY THROUGH THE HOWARD GOVERNMENT'S 2006 "URANIUM MINING, PROCESSING AND NUCLEAR ENERGY REVIEW" PROCESS, NOW COMPLETE - AND, IN FACT, THE**

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GOVERNMENT HAS RECENTLY ANNOUNCED LEGISLATIVE MEASURES TO REMOVE LEGAL BANS ON NUCLEAR POWER INDUSTRY DEVELOPMENT, AS WELL AS PARTICIPATION IN THE DEVELOPMENT OF NEW GENERATION (“GEN IV”) REACTOR TECHNOLOGIES. SHOULD AUSTRALIA DEVELOP NUCLEAR POWER IN THE NEAR TERM, IT WILL OPEN UP THE POSSIBILITY OF FUTURE ENGAGEMENT IN DOMESTICALLY BASED COUNTER-PROLIFERATION STRATEGIES, INCLUDING SEQUESTRATION OF HIGH LEVEL WASTE FROM AUSTRALIAN OBLIGATED NUCLEAR MATERIAL AND OTHER PROLIFERATION – RESISTANT FUEL CYCLE STRATEGIES.

4. HOWEVER, MY STARTING POINT IS THAT AUSTRALIA’S POLICY SETTINGS ON URANIUM EXPORTS CARRY A RANGE OF SERIOUS IMPLICATIONS FOR THE PEACEFUL USE OF NUCLEAR ENERGY AROUND THE WORLD AND FOR NUCLEAR WEAPONS PROLIFERATION. RECENT DEVELOPMENTS IN IRAN AND NORTH KOREA EMPHASISE THIS SECOND POINT.

5. IN TERMS OF GLOBAL ENERGY DEMANDS, AUSTRALIA WILL BE CALLED ON BY MANY ENERGY-HUNGRY STATES TO PROVIDE INCREASED ACCESS TO ITS URANIUM RESERVES TO HELP SUSTAIN RAPID ECONOMIC GROWTH (FOR EXAMPLE, BY CHINA AND INDIA). CHINA ALONE IS PLANNING A FOUR-FOLD

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INCREASE IN NUCLEAR POWER BY 2020. RENEWED INTEREST IN NUCLEAR POWER IN MORE DEVELOPED ECONOMIES WILL ADD FURTHER TO GLOBAL DEMAND LEVELS. AUSTRALIA CURRENTLY SUPPLIES 22% OF TOTAL GLOBAL DEMAND AND COULD RAPIDLY INCREASE THAT PROPORTION.

6. INCREASING MARKET DOMINANCE – GENERATED BY EXPONENTIALLY INCREASING DEMAND FOR AUSTRALIA’S LOW COST RESERVES AND ITS PERCEIVED STABLE SUPPLY POTENTIAL - WILL RESULT IN A GROWING CAPACITY TO MANDATE ENHANCED DIVERSION SAFEGUARDS AS CONDITIONS OF SALE OF URANIUM FOR EXPORT *BEYOND* THOSE CURRENTLY IN PLACE.

LEADER OF THE OPPOSITION KEVIN RUDD’S SPEECH ON 28 APRIL THIS YEAR TO THE ALP’S SYDNEY CONFERENCE OUTLINED HIS PROPOSALS IN THIS REGARD:

- STRENGTHEN EXPORT CONTROL REGIMES AND THE RIGHTS AND AUTHORITY OF THE IAEA.**
- TIGHTEN CONTROLS OVER THE EXPORT OF NUCLEAR MATERIALS AND TECHNOLOGY.**
- SEEK TO MAKE ADHERENCE TO AN IAEA ADDITIONAL PROTOCOL A MANDATORY CONDITION OF SUPPLY BY NUCLEAR SUPPLIER GROUP STATES FOR ALL RELEVANT TRANSFERS.**

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- **SEEK TO CRIMINALISE ACTIONS BY INDIVIDUALS AND CORPORATIONS WHO ASSIST IN NUCLEAR PROLIFERATION.**
 - **SPONSOR A UN SECURITY COUNCIL RESOLUTION ADDRESSING PENALTIES TO BE IMPOSED ON STATES FOR WITHDRAWAL FROM THE NPT.**
- 7. THE OVERALL EFFECT OF THE SCENARIO I HAVE SKETCHED WILL BE TO PRODUCE SIGNIFICANT ADDITIONAL EXPORT REVENUES FOR AUSTRALIA WHILE STRENGTHENING AUSTRALIAN (ASNO REGULATED) AS WELL AS WORKING TOWARDS GLOBALLY MANDATED (IAEA REGULATED) SAFEGUARDS REGIMES AGAINST DIVERSION OF FISSILE MATERIAL INTO WEAPONS DEVELOPMENT PROGRAMS.**
- 8. NEW DEVELOPMENTS IN COUNTER-PROLIFERATION STRATEGIES, SUCH AS THE US PROPOSAL FOR A “GLOBAL NUCLEAR ENERGY PARTNERSHIP” (THE US DEPARTMENT OF ENERGY’S GNEP PROGRAM) COULD WORK TO COMPLEMENT AUSTRALIA’S GROWING CAPACITY TO ENHANCE ITS OWN URANIUM EXPORT SAFEGUARDS REGIME. GNEP CALLS FOR A CLOSED FUEL CYCLE MODEL THAT ENABLES QUARANTINED AND SAFEGUARDED RECYCLING AND CONSUMPTION OF RADIOACTIVE WASTE WHILE PROVIDING CONTROLLED FUEL SERVICES TO ANY STATE WHICH**

AGREES TO USE NUCLEAR ENERGY EXCLUSIVELY FOR POWER GENERATION.

9. AT THIS STAGE, IT IS IMPORTANT TO NOTE THAT AUSTRALIA HAS A LONG HISTORY OF ACTIVE PARTICIPATION IN GLOBAL NUCLEAR COUNTER-PROLIFERATION EFFORTS, WHICH MEANS ITS VOICE IS HEARD IN ALL RELEVANT INTERNATIONAL FORA (SUCH AS THE *INTERNATIONAL ATOMIC ENERGY AGENCY* IN VIENNA AS WELL AS THE *NUCLEAR SUPPLIERS GROUP*.) AUSTRALIA STRONGLY SUPPORTS THE 1968 *NUCLEAR NON-PROLIFERATION TREATY* (NPT), ITS PRINCIPLES AND REGIME, AND CONTINUES ITS ACTIVISM IN, FOR EXAMPLE, THE SUCCESSFUL MULTINATIONAL “*PROLIFERATION SECURITY INITIATIVE*”.

10. THE WORLD WIDE GROWTH OF NUCLEAR POWER GENERATION, IN WHICH AUSTRALIA WILL INEVITABLY PLAY A MAJOR ROLE, HAS CLEAR POTENTIAL BENEFITS FOR GLOBAL GREENHOUSE GAS EMISSION LEVELS AND CLIMATE CHANGE EFFECTS. NOTE ALSO THAT AUSTRALIA IS A MEMBER OF THE 2005 “ASIA PACIFIC PARTNERSHIP ON CLEAN DEVELOPMENT AND CLIMATE” WHICH SEEKS “CLEAN” ENERGY STRATEGIES FOR ECONOMIC DEVELOPMENT BEYOND THE KYOTO PROCESS.

11. ON THE INTERNATIONAL SECURITY FRONT, AUSTRALIA IS MOVING TO COUNTER THE THREAT OF NUCLEAR AND OTHER FORMS OF TRANSNATIONAL TERRORISM IN ITS OWN REGION THROUGH A RANGE OF BILATERAL REGIONAL SECURITY DIALOGUES AS WELL AS ITS WIDER ACTIVITIES WITH ALLIES IN AFGHANISTAN AND IRAQ. THE AUSTRALIA - US ALLIANCE RELATIONSHIP IS A CENTRAL PLANK OF AUSTRALIA'S COUNTER-TERRORISM STRATEGY (2004 POLICY DOCUMENT: "TRANSNATIONAL TERRORISM: THE THREAT TO AUSTRALIA".) THAT REALITY SERVES TO STRENGTHEN THE ALLIANCE IN VERY CONCRETE AND IMPORTANT WAYS TO DO WITH ENHANCED DEFENCE FORCE COOPERATION AND INTELLIGENCE SHARING.

12. AS WE ARE ALL AWARE, ANY PROPOSAL TO DISPOSE IN AUSTRALIA OF HIGH LEVEL NUCLEAR WASTE CREATED BY THE BURNING OVERSEAS OF AUSTRALIAN (OR INDEED ANY OTHER SOURCE) OF URANIUM IS A CONTENTIOUS DOMESTIC POLITICAL ISSUE. THE IAEA AND THE US DEPARTMENT OF ENERGY SUPPORTS A MULTILATERAL APPROACH TO GLOBAL NUCLEAR WASTE DISPOSAL USING NEW GENERATION WASTE REPOSITORIES, ALTHOUGH POLITICAL OPPOSITION MAY SLOW ACCEPTANCE OF THE PRINCIPLE AND ITS APPLICATION IN AUSTRALIA (NOTE THE FAILED *PANGEA* PROPOSAL IN WA).

13. AUSTRALIA HAS BEEN PART OF THE GLOBAL NUCLEAR EQUATION FOR SIXTY YEARS AND CANNOT AVOID ITS NUCLEAR FUTURE. INTERNATIONALLY, IT MUST NOW DECIDE HOW BEST TO BALANCE RISING DEMAND FOR ITS URANIUM WITH THE DANGERS OF NUCLEAR WEAPONS PROLIFERATION INHERENT IN EXPORTING FISSIONABLE MATERIAL TO AN INCREASINGLY UNSTABLE WORLD.

14. THE MOST EFFECTIVE NUCLEAR POLICY CHOICE FOR AUSTRALIA WOULD BE TO ACCEPT THAT AUSTRALIAN URANIUM SALES CAN BE USED BOTH TO CONTRIBUTE TOWARDS GLOBAL EFFORTS TO REDUCE GREENHOUSE GAS EMISSIONS WHILE SIMULTANEOUSLY *REDUCING* THE RISKS OF NUCLEAR WEAPONS PROLIFERATION ASSOCIATED WITH URANIUM EXPORTS TO CLANDESTINE WEAPON ASPIRANT STATES (INCLUDING SUBSEQUENT TRANSFER TO NON-STATE ACTORS).

HOW SO? THE NUCLEAR NON-PROLIFERATION REGIME IS UNDER SERIOUS THREAT FROM A NUMBER OF DIRECTIONS AND SOURCES IN 2007. WHILE LIBYA HAS FINALLY RENOUNCED ITS NUCLEAR WEAPONS AMBITIONS, NORTH KOREA CONTINUES SPASMODIC NEGOTIATIONS IN BEIJING ON THE STATUS OF ITS WEAPONS PROGRAM, HAVING RECENTLY CONVINCED THE WORLD THAT IT IS NOW

**IN POSSESSION OF OPERATIONAL NUCLEAR
EXPLOSIVE DEVICES.**

**ON THE INDIAN SUB-CONTINENT BOTH INDIA AND
PAKISTAN CONTINUE TO CONFRONT EACH OTHER
WITH PROVEN NUCLEAR WEAPONS CAPACITIES AND
RELIABLE MISSILE DELIVERY SYSTEMS. IN IRAN, THE
GOVERNMENT DEFIES THE WEST IN ITS INSISTENCE
ON THE PEACEFUL INTENT OF ITS NUCLEAR
PROGRAM, INCLUDING, AS IAEA INSPECTORS HAVE
JUST REPORTED, THE ESTABLISHMENT OF AT LEAST
ONE CENTRIFUGE ENRICHMENT CASCADE OF SOME
1300 ELEMENTS AT IRAN'S MAJOR NUCLEAR
DEVELOPMENT SITE AT NATANZ. WHILE THE
MULTILATERAL PROLIFERATION SECURITY
INITIATIVE (PSI), IN WHICH AUSTRALIA
PARTICIPATES, HAS ENJOYED SOME SUCCESS
(NOTABLY IN RESPECT OF LIBYA'S NUCLEAR
AMBITIONS) AND IS GROWING IN INTERNATIONAL
RECOGNITION OF ITS UTILITY, THERE IS NO DOUBT
THAT THERE EXISTS THE POTENTIAL FOR NUCLEAR
WEAPONS, THEIR TECHNOLOGIES AND PERHAPS
THEIR DELIVERY SYSTEMS TO FALL INTO THE
HANDS OF INTERNATIONAL TERRORIST
ORGANISATIONS. SHOULD THIS HAPPEN, THOSE
ORGANISATIONS WILL NOT HESITATE TO USE THEM
ON THE BIG CITIES OF THEIR WESTERN AND OTHER
ENEMIES, INCLUDING AUSTRALIA.**

THUS, THERE IS NO DOUBT THAT THE NUCLEAR NON-PROLIFERATION REGIME IS COMING UNDER INCREASING STRAIN IN THE OPENING YEARS OF THE NEW CENTURY, AND THERE IS A CONSEQUENT AND URGENT NEED TO REINFORCE THOSE PRACTICAL MEASURES OF TRANSPARENCY, OVERSIGHT, VERIFICATION AGAINST MATERIALS TRANSFER, AND ULTIMATELY DENIAL OF SUPPLY WHICH FORM THE NPT'S OPERATIONAL CORE AND RAISON D'ETRE.

WHAT I WANT TO SUGGEST IS THAT THERE ARE EMERGENT OPPORTUNITIES FOR AUSTRALIA TO HELP IN DOING JUST THAT, AND THAT A SET OF COMPLEMENTARY CIRCUMSTANCES, IN BOTH ITS DOMESTIC AND FOREIGN POLICY SETTINGS, WILL ALLOW AUSTRALIA TO PARTICIPATE IN MEANINGFUL WAYS IN RE-FOCUSING AND SHORING UP THE NPT, ITS PRINCIPLES AND REGIME INTO THE MIDDLE DISTANCE. AT FIRST GLANCE, IT APPEARS THAT AUSTRALIA ALREADY HAS IN PLACE A REGIME OF CONDITIONS OF URANIUM SUPPLY WHICH ARE SUFFICIENTLY ROBUST AS NOT TO REQUIRE SIGNIFICANT MODIFICATION. THEIR MAJOR ELEMENTS ARE WELL KNOWN:

- **AUSTRALIA CURRENTLY HAS IN PLACE 19 BILATERAL SAFEGUARD AGREEMENTS COVERING**

36 COUNTRIES (INCLUDING THE EURATOM STATES), WITH THE CHINA AGREEMENT TO COME.

- **THESE AGREEMENTS APPLY SPECIFIC SAFEGUARDS TO AUSTRALIAN OBLIGATED NUCLEAR MATERIAL (AONM) *BEYOND* THE OBLIGATORY STANDARD IAEA SAFEGUARDS AGREEMENT, IN RESPECT OF WHICH, AUSTRALIA INSISTS, ALL NON-NUCLEAR WEAPON STATUS RECIPIENT STATES MUST *ALSO* HAVE NEGOTIATED AN ADDITIONAL PROTOCOL ON FULL SCOPE SAFEGUARDS WITH THE IAEA.**
- **FINALLY, ITS BILATERAL SAFEGUARD AGREEMENTS REQUIRE AUSTRALIA'S CONSENT TO THE FOLLOWING:**
 - **THE EXCLUSIVELY PEACEFUL USE OF AONM**
 - **RE-TRANSFER TO THIRD PARTIES OF AONM ON THE BASIS OF INTERNATIONALLY ACCEPTED PHYSICAL SECURITY STANDARDS**
 - **COVERAGE OF AONM BY THE IAEA OR FALLBACK SAFEGUARDS ARRANGEMENTS FOR THE FULL LIFE OF THE MATERIAL**
 - **ITS ENRICHMENT FOR FUEL ELEMENT REPROCESSING INVOLVING AONM BEYOND 20% U235.**

TAKEN TOGETHER, THE CONDITIONS UNDER WHICH AUSTRALIA WILL CURRENTLY AGREE TO SELL URANIUM TO NPT SIGNATORY STATES ARE

PROBABLY THE MOST STRINGENT IN THE GLOBAL MARKETPLACE. NEVERTHELESS, IT IS ALSO PROBABLE THAT THEY WILL BE ENHANCED EVEN FURTHER BY EITHER A COALITION OR ALP GOVERNMENT FROM OCTOBER 2007 (AS I OUTLINED EARLIER IN REFERRING TO KEVIN RUDD'S ALP CONFERENCE SPEECH.)

THE CURRENT SUPPLY CONDITIONS, TOGETHER WITH RUDD'S ADDITIONS AND THE POLITICAL WILL OF AUSTRALIAN GOVERNMENTS TO DENY SUPPLY IN ANY RELEVANT CIRCUMSTANCE IN WHICH THE REALITY OR THREAT OF DIVERSION IS SUSPECTED, WILL PROVIDE THE WORLD WITH EXEMPLARY POLICY ON THE CONDITIONS UNDER WHICH ALL URANIUM SUPPLIERS MUST OPERATE INTO THE FUTURE.

LEADER OF THE OPPOSITION RUDD DECLARED IN HIS APRIL CONFERENCE SPEECH THAT AUSTRALIA HAS SUPPLIED URANIUM TO AN ENERGY-HUNGRY WORLD FOR MANY YEARS, AND THAT IT MUST CONTINUE TO DO SO. BUT HIS CAVEAT WAS THAT URANIUM EXPORTS MUST IN THE FUTURE BE CONDUCTED IN THE CONTEXT OF "... [A] NON-PROLIFERATION REGIME THAT IS THE MOST ROBUST POSSIBLE ...", GIVEN THAT THE NPT, ITS REGIME, AND THE IAEA ITSELF ARE, TO USE RUDD'S PHRASE, COMING UNDER INCREASING DURESS.

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15.BUT, OF COURSE, IT CANNOT DO SO ALONE. IT MUST, HOWEVER, SHOW THE WAY BY CONTINUING TO REQUIRE THE STRICTEST CONDITIONS OF URANIUM SUPPLY OF ANY SUPPLIER STATE, AND STRENGTHEN EVEN THESE, AS KEVIN RUDD HAS SUGGESTED. THE DIVERSION OF FISSIONABLE MATERIALS OCCURS BOTH IN CLANDESTINE WAYS (SUCH AS THE A.Q. KHAN NUCLEAR TECHNOLOGY NETWORK AND THEFT FROM RUSSIAN SOURCES) AND BY SOVEREIGN GOVERNMENT (NORTH KOREA). EITHER WAY, AUSTRALIA CAN CONTINUE TO LEAD IN COUNTER-PROLIFERATION AS AN ACKNOWLEDGE GLOBAL FORCE.

16.THE POTENTIAL URANIUM MARKET POWER INHERENT FOR AUSTRALIA IN AN ENERGY HUNGRY WORLD IS A RARE OPPORTUNITY FOR AUSTRALIA TO TAKE A WORLD LEAD IN EFFECTIVE GLOBAL WMD NON-PROLIFERATION EFFORTS.