

3

MR. WALSH: THANKS SO MUCH, JIM.

4

WHAT I WOULD LIKE TO TRY AND DO IS JUST TO  
5 SORT OF PROMPTLY GO THROUGH THE MATERIAL IN THE  
6 PRESENTATION TO MAKE SURE WE LEAVE SOME OPEN  
7 DISCUSSION TIME.

8

THIS IS A NICE OPPORTUNITY TO EXTEND THE  
9 GOOD FOLKS' PRESENTATION FROM THE PRIOR PANEL WITH A  
10 LITTLE BIT MORE DETAIL AND SOME INSIGHTS FROM SOME  
11 WORK IN THE TRENCHES IN WORKING WITH CAP-AND-TRADE.  
12 AND SO WHAT I WILL DO IN RELATIVELY SHORT ORDER IS  
13 QUICKLY SURVEY THE INTERNATIONAL LANDSCAPE; TALK  
14 ABOUT THE CASE STUDY THAT THE CHICAGO CLIMATE  
15 EXCHANGE, WITH FOUR YEARS OF COMPLIANCE NOW,  
16 EXECUTED; WHAT WE'VE LEARNED; AND THEN PUT IT IN A  
17 LITTLE BIT OF THE CONTEXT OF POTENTIAL NATIONAL AND  
18 INTERNATIONAL FURTHER COOPERATION.

19

COMPARED TO MANY OF YOU, I'M A RELATIVE  
20 NEWCOMER. I BEGAN WORKING FULL TIME ON CLIMATE IN  
21 1995, AND THERE WERE A FEW OBSERVATIONS THAT WERE  
22 DRIVING OUR THINKING AT THAT TIME. ONE WAS THAT  
23 GREENHOUSE GAS MITIGATION WAS IDEALLY SUITED TO A  
24 CAP-AND-TRADE MECHANISM GIVEN THE GEOGRAPHIC  
25 INDEPENDENCE OF THE CLIMATE BENEFITS OF MITIGATION

0783

1

OPTIONS, GIVEN THE DIVERSITY OF MITIGATION OPTIONS,  
2 GIVEN THE DIVERSITY OF COST. IN A CAP-AND-TRADE  
3 MECHANISM, THE MARKET MECHANISM DOESN'T REDUCE  
4 EMISSIONS; THE EMITTERS REDUCE THE EMISSIONS, BUT  
5 THERE ARE TECHNOLOGICAL AND BEHAVIORAL CHANGES WITH  
6 THOSE EMISSIONS, BUT THERE WERE SO MANY OPTIONS OUT  
7 THERE THAT HARMONIZING AND MAXIMIZING THE OUTPUT,  
8 MAKING THAT DOLLAR SPENT ON ENVIRONMENT GO AS FAR AS  
9 POSSIBLE, WAS VERY COMPELLING FOR CLIMATE, AND SO IT  
10 WAS WELL SUITED FOR CAP-AND-TRADE.

11

FURTHER, OUR VIEW AT THAT TIME WAS THAT THE  
12 FRAMEWORK CONVENTION ON CLIMATE CHANGE REALLY  
13 PROVIDED ALL THE SORT OF POLICY AMMUNITION THAT ONE  
14 WOULD NEED TO START TO TAKE ACTION. IT CALLED FOR  
15 UTILIZATION OF ALL MITIGATION OPTIONS. IT CALLED FOR  
16 A SENSITIVITY TO THE ECONOMIC EFFECTS IN MAINTAINING  
17 STRONG ECONOMIC ACTIVITY IN THE CONTEXT OF STRONG  
18 MITIGATION POLICIES. SO WE THOUGHT THE FRAMEWORK  
19 CONVENTION PROVIDED, ACTUALLY, SOME GOALS, PROVIDED  
20 THE NECESSARY BACKGROUND.

21

AND THE THIRD ELEMENTAL VIEW THAT WE TOOK  
22 IN STARTING OUR WORK IN 1995 WAS THAT THIS WAS GOING  
23 TO BE A VERY DIFFICULT ISSUE TO ATTACK TOP-DOWN; THAT  
24 NATIONAL AND INTERNATIONAL AGREEMENTS WERE GOING TO  
25 BE HARD TO COME BY, DIFFICULT TO IMPLEMENT, AND THAT

0784

1

A BOTTOM-UP APPROACH, AND WE USED TO USE THE PHRASE  
2 . . . WHERE A HANDFUL OF COMPANIES OR A HANDFUL OF  
3 INDUSTRIES WOULD TAKE THE LEAD AND THEN, THROUGH A  
4 CONTAGION EFFECT, SPREAD THE USE OF THE INSTRUMENTS  
5 UNTIL WE GET A GLOBAL COVERAGE OF A SYSTEM. NOW,  
6 UNFORTUNATELY, WE WERE RIGHT ABOUT ONE OR TWO OF  
7 THOSE BUT NOT SO RIGHT ABOUT ALL OF THEM.

8                   NOW, IN SOME MEASURE, I WOULD LIKE TO MARK  
9                   A TEN-YEAR ANNIVERSARY, A SHORTER CYCLE THAN THE  
10                  50-YEAR ANNIVERSARY. TEN YEARS AGO IN JUNE, WE HELD  
11                  A WORKSHOP IN CHICAGO THAT WAS REFERRED TO AS THE  
12                  FIRST GREENHOUSE GAS EMISSIONS TRADING POLICY FORUM.  
13                  AND THERE WAS SOME SERIOUS INTERNATIONAL DIGNITARIES  
14                  AND INDUSTRIALISTS THERE. AND AT THAT EVENT, SIX  
15                  MONTHS BEFORE KYOTO NOW, MICHAEL ZAMMIT CUTAJAR THE  
16                  EXECUTOR DIRECTOR OF THE U.N. FRAMEWORK CONVENTION  
17                  PROVIDED THE FOLLOWING SYNOPSIS: HE SAID, THERE ARE  
18                  THREE TRAINS OF THOUGHT ABOUT EMISSIONS TRADING IN  
19                  THIS KYOTO FRAMEWORK CONVENTION STRUCTURE. TWO OF  
20                  THEM ARE DECIDEDLY NO. SIX MONTHS LATER, AN  
21                  INTERNATIONAL TREATY REALLY ESTABLISHED NOT ONLY  
22                  THREE BUT SORT OF THREE AND A HALF AND FOUR EMISSIONS  
23                  TRAINING MECHANISMS, AND THE WORLD HAS SLOWLY STARTED  
24                  TO UPTAKE THOSE CONCEPTS, SOME WITHIN THE KYOTO  
25                  PROTOCOL, SOME OUTSIDE OF IT.

0785

1                   LET'S TAKE SORT OF A QUICK LOOK AT SOME OF  
2                   THE CONTENT. AS MANY OF YOU WHO HAVE BEEN INVOLVED  
3                   IN THE KYOTO PROCESSES KNOW THE INTERNATIONAL  
4                   BUSINESS COMMUNITY WAS NOT ALWAYS EAGER TO EMBRACE  
5                   THIS ISSUE AND THE NEED FOR ACTION, BUT JUST A COUPLE  
6                   OF YEARS AGO THE INTERNATIONAL CHAMBER OF COMMERCE  
7                   HAD SAID, LOOK, LET'S GET ON WITH IT. WE THINK A  
8                   MARKET MECHANISM IS THE LOGICAL WAY TO GO ON A GLOBAL  
9                   BASIS, AND WE CAN TAKE A QUICK SORT OF INVENTORY OF  
10                  WHERE THAT STANDS. AND I REFLECT MY VIEWS ON THIS  
11                  INVENTORY FROM WHAT OUR BUSINESS IS. IT'S AN  
12                  INTERNATIONAL EMISSIONS MARKET, ENVIRONMENTAL MARKET  
13                  SYSTEM THAT WE STARTED WITH CHICAGO CLIMATE EXCHANGE  
14                  AS A VOLUNTARY CAP-AND-TRADE SYSTEM. I WILL EXPLAIN  
15                  IT TO YOU IN SOME DETAIL. BUT WE SAID, HEY, THIS IS  
16                  A FINANCIAL INSTRUMENT, A FINANCIAL TECHNOLOGY THAT  
17                  WE SHOULD BE EXPORTING; AND WE, WITH PARTNERS, HAVE  
18                  ACTIVATED THE EUROPEAN CLIMATE EXCHANGE, WHICH KNOCK  
19                  ON WOOD, HAS HAD VERY GOOD SUCCESS IN CAPTURING  
20                  MARKET SHARE THERE. WE'VE ACTIVATED NOW A FUTURES  
21                  MARKET FOR SULFUR AND NOX AND OTHER PRODUCTS HERE IN  
22                  THE U.S., AND THAT HAS HAD PRETTY GOOD LUCK, AS WELL.

23                  NEXT QUARTER WE WILL ACTIVATE OUR CANADA  
24                  JOINT VENTURE OF THE MONTREAL CLIMATE EXCHANGE IN A  
25                  RATHER FUZZY POLITICAL ENVIRONMENT, I WOULD NOTE.

0786

1                   THE POLICY MECHANISMS ARE NOT FULLY ARTICULATED YET.  
2                   WE HAVE INDICATED OUR INTENTION TO PROVIDE  
3                   APPROPRIATE TRANSACTION PLATFORMS FOR THE  
4                   NORTHEASTERN STATES POLICY MECHANISMS; SIMILARLY, IN  
5                   CALIFORNIA. AND WE'RE CURRENTLY BUSY TRYING TO  
6                   REPLICATE OUR BOTTOM-UP SUCCESS WITH CCX IN INDIA,  
7                   WITH AMAZINGLY POSITIVE RESPONSE. NOT ONE SINGLE  
8                   INDIVIDUAL THAT WE VISITED WITH HAS SAID IT'S NOT OUR  
9                   PROBLEM; AND QUITE THE OPPOSITE, MANY OF THEM HAVE  
10                  SAID WHY SHOULD INDIA BE THE LAST TO THE TABLE, SO  
11                  IT'S AN EXCITING TIME.

12                  WITH THAT SAID, ONE CAN THINK OF THE GLASS,

13 IN SOME WAYS, IF YOU THINK WE SHOULD GET ON WITH THIS  
14 CAP-AND-TRADE SYSTEM OF LIMITATIONS AND MARKET-BASED  
15 MANAGEMENT ON A GLOBAL BASIS, WE CAN SAY, IN SOME  
16 SENSE, THE GLASS IS ALMOST OR MORE THAN HALF FULL.

17 THE EUROPEAN UNION REPRESENTS ABOUT  
18 17 PERCENT OF GLOBAL EMISSIONS. THEY'VE GOT NOT ONLY  
19 NATIONAL EMISSIONS BUDGETS, AS PER KYOTO, BUT THEY  
20 HAVE ACTIVATED AN INDUSTRIAL LEVEL CAP-AND-TRADE  
21 SYSTEM. THEY HAD A TRIAL PHASE THAT ALLOWED THEM TO  
22 BUILD OUT THE INFRASTRUCTURE, AND THEY FLOODED THE  
23 MARKET, AND THE MARKET REACTED AS IT SHOULD. IT SAID  
24 THERE'S NO SCARCITY. AND THE PRICES ON OUR EXCHANGE  
25 IN EUROPE FOR THE 2005 AND THE 2007 EUROPEAN UNION

0787

1 INSTRUMENTS GIVE YOU A PRICE OF LIKE 10 CENTS. I  
2 KNOW IT IS 10 IN EURO CENTS, BUT IT IS STILL A DIME.  
3 IT IS NOT VERY MUCH. MAYBE 14 OR 15 CENTS U.S. BUT  
4 NEVERTHELESS, THEY LEARNED. THEY LEARNED WHAT ARE  
5 THE REAL EMISSION HISTORIES AND HOW DO WE RACHET DOWN  
6 FROM THERE. SO FOR THE KYOTO PERIOD, WHICH STARTS IN  
7 JANUARY, THEY SAID, YOU'RE NOT GETTING THE OLD  
8 NUMBERS; YOU'RE GETTING A DISCOUNT RELATIVE TO YOUR  
9 2005 ACTUAL AUDITED EMISSIONS. SO THEY GOT THE DATA.  
10 THEY GOT THE AUDITS. THEY GOT THE REGISTRIES IN  
11 PLACE AND SO ON. AND SURE ENOUGH, THE PRICES  
12 ACQUIRED FOR THE 2005 THROUGH 2012 PERIOD, OUR  
13 FUTURES MARKET SAYS THE PRICES ARE IN THE RANGE OF  
14 23 EUROS, WHICH IS ABOUT 35 BUCKS, SO THIS IS A  
15 PRETTY ROBUST PRICE.

16 NOW, MOVING INTO THE OTHER KYOTO  
17 RATIFIERS -- CANADA, RUSSIA, UKRAINE, JAPAN POSSIBLY,  
18 VERY SOON TO BE AUSTRALIA -- THERE ARE STRONG  
19 MOVEMENTS TOWARDS IMPLEMENTING CAP WITH SOME CASES  
20 TRADING MECHANISMS UNDER THOSE CAPS. OF COURSE,  
21 RUSSIA AND UKRAINE ARE VERY SIGNIFICANT EMITTERS IN  
22 KYOTO; HAVE TO REALLY TRANSLATE THEIR NATIONAL  
23 EMISSION BUDGETS TO INDUSTRIAL LEVEL BUDGETS AND  
24 CAPS, BUT THEY EXPECT TO BE LONG IN THE KYOTO SYSTEM  
25 AND ARE TRYING TO BUILD OUT THE INFRASTRUCTURE THAT

0788

1 THEY NEED TO AT LEAST COMPLY WITH THE KYOTO MECHANISM  
2 RULES.

3 JAPAN HAS NOT PARTICULARLY GRASPED IN ITS  
4 DOMESTIC ENVIRONMENT THIS TRADING CONCEPT VERY  
5 QUICKLY. NEVERTHELESS, THEY'RE A SIGNIFICANT  
6 INVESTOR IN CREDITS FROM DEVELOPING COUNTRIES,  
7 THROUGH KYOTO'S CLEAN DEVELOPMENT MECHANISM. AND  
8 THAT'S A PART OF THIS MARKET, IF YOU WILL, THAT HAS  
9 NOT REALLY SHOWN UP ON THIS GRAPH. JUST A SHORT  
10 COMMENT ABOUT THAT. I HAVE SPENT A FAIR BIT OF TIME  
11 IN VERY DEEP HINTERLANDS OF INDIA AND CHINA. AND  
12 WHEN YOU MEET FINANCIAL ANALYSTS IN A THIRD-LEVEL  
13 CITY OF INDIA WHO CAN SPEAK VOLUMES WITH YOU ABOUT  
14 CARBON MARKETS, THEN YOU KNOW YOU'VE HAD SOME  
15 PENETRATION INTO THE FINANCIAL MARKETS AND THE  
16 INTELLECTUAL BASE OF THESE COUNTRIES. SO WHILE THERE  
17 IS A LOT OF CONTROVERSY ABOUT ALLOWING DEVELOPING

18 COUNTRIES TO JUST BE ON THE CELL SIDE, I THINK IT HAS  
19 HAD A VERY, VERY POWERFUL ENGAGEMENT EFFECT THAT  
20 SHOULD NOT BE DISCOUNTED. WE NEED TO GET THE HUMAN  
21 CAPITAL AND KNOWLEDGE SKILLS IN PLACE.

22 NOW, CANADA, AS I INDICATED, DOES HAVE A  
23 CAP-AND-TRADE SYSTEM COMING. IT WILL NOT ACHIEVE THE  
24 KYOTO GOALS. THEY'RE VERY OUTRIGHT ABOUT THAT.  
25 NEVERTHELESS, THERE'S SOME MOVEMENT TOWARDS

0789

1 INSTITUTIONALIZING CARBON MANAGEMENT. AND THAT'S  
2 REALLY WHAT THIS IS ABOUT. AND I WILL TALK AT THE  
3 END ABOUT SOME OF THE LEGISLATIVE PROPOSALS,  
4 INTERESTING ONES HERE IN THE UNITED STATES.

5 NOW, THAT SAID, THAT RED PART IS GROWING  
6 VERY RAPIDLY, AND WE HAVE TO FIND WAYS, NOT JUST  
7 CAP-AND-TRADE, BUT OTHER WAYS, TECHNOLOGY SHARING AND  
8 SO FORTH, TO ATTACK THAT OTHER PART OF THAT RAPIDLY  
9 GROWING SLICE OF THE PIE. AND I'M ONE OF THOSE  
10 PEOPLE WHO DOESN'T THINK THAT THERE IS ONLY ONE WAY  
11 TO ADDRESS THESE ISSUES. IN FACT, I THINK THAT SMALL  
12 GROUPS, TECHNOLOGY-SHARING CLUBS, AP6, WHATEVER THAT  
13 GROUP MIGHT BE CALLED, IF IT CAN WORK, THEN WE SHOULD  
14 BE EMBRACING IT. THIS PROBLEM IS SO PROFOUND WE NEED  
15 EVERY ACTION POINT WE CAN GET.

16 SO LET ME TALK ABOUT ONE CASE STUDY OF  
17 EMISSIONS TRADING AND SHARE SOME OF THE LESSONS  
18 LEARNED AND THEN SEGUE INTO WHERE WE'RE GOING IN THIS  
19 COUNTRY. SO IN THE YEAR 2000 WE STARTED THE RESEARCH  
20 AND DEVELOPMENT ON FORMING A VOLUNTARY MARKET  
21 BECAUSE, OBVIOUSLY, THERE WASN'T LEGISLATION, NOR DID  
22 WE HAVE ANY AUTHORITY TO LEGISLATE. SO WE WERE  
23 WORKING WITH SEED FUNDING FROM THE JOYCE FOUNDATION  
24 IN CHICAGO, TWICE VOTED FOR BY BARACK OBAMA, WHEN HE  
25 WAS ON THEIR BOARD, AND WE BEGAN THE PROCESS OF

0790

1 SITTING DOWN TO BUILD A CONSENSUS ON A SIX-GAS  
2 INTERNATIONAL CAP-AND-TRADE SYSTEM. THE  
3 INTERNATIONAL PART WAS PRIMARILY U.S. AND CANADA FROM  
4 THE OUTSET. AND WE SAID WE WANT TO EMBRACE  
5 MITIGATION OPTIONS IN ANY SECTOR, IN ANY PLACE, SO WE  
6 DID OPEN UP A WINDOW TO ALLOW PROJECT-BASED CREDITS,  
7 FOR THE OFFSETS MECHANISM.

8 NOW, THE THING HAS TAKEN OFF. AND LET ME  
9 BE CLEAR: WE HAD NO INTENTION OF TRYING TO COMPETE  
10 WITH POLICY OR DISPLACE POLICY. QUITE THE OPPOSITE,  
11 OUR VIEW WAS POLICIES ARE COMING, WE NEED TO TEST OUT  
12 SOME OF THESE IDEAS AND PROVIDE EXPERIENCE FOR PEOPLE  
13 IN THE FIELD. SO THERE IS SOME CONFUSION OUT THERE,  
14 IF YOU'RE BUILDING A VOLUNTARY SYSTEM, THAT MEANS  
15 YOU'RE AGAINST MANDATORY. THAT COULDN'T BE FARTHER  
16 FROM THE TRUTH.

17 BUT THE GROWTH IN THE MEMBERSHIP IN THE  
18 EXCHANGE I THINK IS A REFLECTION PEOPLE KNOW THIS IS  
19 COMING ON A LEGISLATIVE BASIS AND THEY WANT TO GET  
20 EXPERIENCE AND GET KNOWLEDGEABLE AND GET GOOD ABOUT  
21 MANAGING CARBON AND CARBON BUDGETS.

22 LET ME JUST MAKE AN OBSERVATION IN REGARD

23 TO DR. CICERONE'S QUESTIONS ABOUT CARBON TAXES. WHAT  
24 I FIND INTRIGUING, IT'S ONE OF THESE LITTLE PIECES  
25 FROM WORKING ON THE GROUND ON THIS ISSUE, IS THAT IF  
0791

1 YOU CAN'T DO THIS IN THE BUDGET, YOU GIVE THEM A  
2 GOAL, SAY YOU GOT TO MANAGE TO THAT NUMBER, THAT'S  
3 WHAT THEY DO. THEY'RE REALLY QUITE GOOD AT THIS.  
4 LET'S SAY, HERE'S OUR GOAL. THERE'S A TARGET  
5 PRODUCTION, A PRODUCT GOAL, AN EMISSIONS GOAL. AND  
6 WHEN THEY BEAT THE EMISSIONS GOAL, THEY MAKE MONEY.  
7 IT'S AMAZINGLY POWERFUL.

8 AND SOMETIMES I'M ASKED: WELL, WHAT DO YOU  
9 THINK, SHOULDN'T A TEXTBOOK CARBON TAX ON EMISSIONS,  
10 CARBON SYSTEM, WORK OUT THE SAME WAY? AND I SAY  
11 MAYBE IN THE TEXTBOOK, BUT I DON'T LIVE IN THE  
12 TEXTBOOK WORLD, I LIVE IN THE REAL WORLD. AND I  
13 WOULD ASK: WHAT COMPANY DO YOU THINK WOULD THROW A  
14 PARTY IF THEY SUCCEEDED IN REDUCING THEIR CARBON TAX  
15 FROM \$1.1 BILLION TO A \$1.0 BILLION? LESS MONEY TO  
16 IRS. I DON'T THINK SO. BUT IF YOU BEAT AN EMISSION  
17 REDUCTION GOAL AND YOU HAVE A NEW PROFIT SOURCE OF  
18 \$100 MILLION, I CAN ASSURE YOU THERE WILL BE A PARTY,  
19 THERE WILL BE BONUSES, THERE WILL BE REWARDS. AND IT  
20 IS JUST AN ENTIRELY DIFFERENT PSYCHE. I REFER TO IT  
21 AS A POSITIVE PRICE PRESSURE. YOU BEAT A GOAL, YOU  
22 MAKE MONEY. NOT ONLY DO YOU SPEND LESS PAYING TO  
23 WASHINGTON, BUT YOU'RE REWARDED DIRECTLY. SO THIS  
24 CONCEPT, YOU KNOW, MAY BE ONE OF THE REASONS WHY A  
25 CARBON TAX HAS ESSENTIALLY NO POLITICAL LEGS. BUT  
0792

1 THAT'S JUST A SIDE OBSERVATION.

2 SO THESE WERE THE REASONS THAT A LOT OF THE  
3 MEMBERS OF THE EXCHANGE HAVE TOLD US THAT THEY HAVE  
4 JOINED: THEY WANT TO GET IN THE GAME. THEY WANT TO  
5 GET HANDS-ON EXPERIENCE. MANY OF OUR MEMBERS ARE  
6 JUST GLOBAL CORPORATES THAT HAD NEVER DONE EMISSIONS  
7 TRADING BEFORE, AND THEY WANTED TO LEARN WHAT IT  
8 MEANT FROM A HANDS-ON APPROACH. MANY OF THEM HAVE  
9 TOLD US THAT THEY KNOW THE POLICIES ARE COMING IN  
10 MANY DIFFERENT FLAVORS AND THEY WANT TO BE ABLE TO DRIVE  
11 IT AND GET AHEAD OF THOSE RULES. THEY WANT TO MAKE  
12 SURE THAT WHATEVER RULES WE EVENTUALLY HAVE ARE  
13 AFFORDABLE. THEY WANT TO GET A NEW BUSINESS MODEL  
14 GOING WHERE CARBON IS PART OF THE BUSINESS, CARBON  
15 PRICES ARE BUILT INTO YOUR BUSINESS ACTIVITIES. MANY  
16 OF THE FOLKS ARE THERE TO MAKE MONEY FLAT-OUT, EITHER  
17 RIGHT NOW, BECAUSE THEY THINK THEY CAN BEAT THE  
18 REDUCTION SCHEDULE, OR IN THE FUTURE BECAUSE THEY  
19 THINK THEY CAN GENERATE OR BUY CHEAP REDUCTIONS NOW  
20 AND HAVE THOSE GET RECOGNIZED IN FEDERAL POLICY. AND  
21 I THINK YOU HEARD A UNANIMOUS SET OF STATEMENTS FROM  
22 THE STATE FOLKS WHO SAID THAT THOSE WHO ACT EARLY  
23 SHOULD GET RECOGNIZED. AND OUR MEMBERS ARE TRYING TO  
24 KEEP ALL THEIR I'S DOTTED AND T'S CROSSED SO THEY CAN  
25 DOCUMENT THEIR REDUCTIONS.

0793

1 THERE'S ANOTHER SORT OF FINANCIAL AND

2 BUSINESS DIMENSION TO THIS, AND THAT IS ATTRACT  
3 SMART, YOUNG PEOPLE, BE RECOGNIZED AS A LEADER, HAVE  
4 A GOOD BRAND, HAVE GOODWILL, HAVE GOOD RELATIONS WITH  
5 YOUR NEIGHBORS AND YOUR GOVERNORS AND UTILITIES  
6 COMMISSIONS. BUT EVEN FURTHER, THERE ARE SOME FOLKS  
7 WHO ARE SLINGING LAWSUITS AROUND, SUCH AS SOME OF THE  
8 BIG INSTITUTIONAL INVESTORS AND PENSION FUNDS. AND  
9 THEIR LINE OF REASONING IS, IF YOU ARE NOT ADDRESSING  
10 THIS RISK PROACTIVELY, YOU COULD BE ACCUSED OF  
11 FAILING TO MEET FIDUCIARY COMMITMENTS. WHEN THAT  
12 GETS TO THE BOARDROOM, THE TEMPERATURE ON THESE  
13 ISSUES GOES UP DRAMATICALLY. SO THERE'S A WHOLE  
14 BUNCH OF DIMENSIONS AS TO WHY PEOPLE WANTED TO GET  
15 INVOLVED.

16 AND AS IT TURNS OUT, QUITE A FEW HAVE  
17 GOTTEN INVOLVED TO THE POINT WHERE THERE'S NOW MORE  
18 EMISSIONS UNDER THE CAPTURE IN THE UNITED STATES THAN  
19 ANY OTHER COUNTRY IN THE WORLD, WHICH IS AN AMAZING  
20 THING. IF WE THOUGHT ABOUT A FEW YEARS AGO, WE WOULD  
21 NOT HAVE BELIEVED IT. BUT GERMANY INCLUDES ABOUT  
22 HALF OF ITS NATIONAL EMISSIONS UNDER THE INDUSTRIAL  
23 CAP-AND-TRADE PART, AND WE'RE CURRENTLY A LITTLE BIT  
24 BIGGER THAN GERMANY IN TERMS OF INCLUDING EMISSIONS.  
25 NOW, YOU HEARD SOME INTERESTING COMMENTS

0794

1 FROM THE STATE FOLKS THIS MORNING. IF YOU LOOK AT  
2 THOSE YELLOW BARS IN THE MIDDLE, THAT'S A LITTLE BIT  
3 DATED SINCE THE NORTHEASTERN STATES HAVE ADDED  
4 MARYLAND, AND THE TOTAL INCLUDED EMISSIONS IS RAMPED  
5 UP A BIT. THESE ARE IN METRIC TONS, BY THE WAY. BUT  
6 THE EFFORTS BY CALIFORNIA TO REACH OUT TO THE REGION,  
7 THE EFFORTS BY RGGI TO REACH OUT TO OTHER MARKETS TO  
8 LINK WITH, IS A SOUND ONE IF YOU THINK THAT IT NEEDS  
9 SCALE, IT NEEDS DIVERSITY AND "DIVERSITY" MEANING  
10 SOME FOLKS CAN REDUCE EMISSIONS AT LOW COST WHILE  
11 OTHERS CANNOT. AND IF YOU DON'T HAVE THAT COST  
12 DIVERSITY, WHICH OFTEN COMES WITH SCALE, YOU WON'T  
13 HAVE THE GAINS FROM TRADE. AND THAT'S REALLY WHY YOU  
14 NEED AS BIG A MARKET AS YOU CAN GET. SO FOR RGGI TO  
15 LINK WITH CALIFORNIA OR RGGI TO LINK WITH EUROPE OR  
16 CANADA, THEN THEY'RE GOING TO GET MORE DIVERSITY,  
17 MORE PLAYERS, MORE SECTORS, AND MORE OPPORTUNITY TO  
18 KEEP THE COSTS OF MITIGATION DOWN. AND THAT'S WHY  
19 IT'S INTELLIGENT FOR THOSE INITIATIVES TO TRY TO GO  
20 AS REGIONALLY AS THEY POSSIBLY CAN.

21 AND YOU ALSO SEE SOME RED BARS THERE. I  
22 PROBABLY SHOULD CHANGE THE ONE IN CANADA TO MARKET  
23 AND DEVELOPMENT; AND AUSTRALIA MAY BE ABOUT TO  
24 CHANGE, AS WELL, GIVEN THE RECENT ELECTION.

25 NOW, HERE ARE THE CORE MEMBERS. WE LIKE  
0795

1 ALL OUR MEMBERS, BUT THESE ARE THE FOLKS WHO REALLY  
2 HAVE THE MOST SKIN IN THE GAME. THEY HAVE TAKEN ON  
3 THE REDUCTIONS. AND WHAT YOU SEE, AS I INDICATED, IS  
4 REALLY A LOT OF GLOBAL CORPORATES: THE ROLLS ROYCES,  
5 THE DUPONTS OF THE WORLD, UNITED TECHNOLOGIES. MANY  
6 HAD NOT DONE EMISSIONS TRADING BEFORE. MANY KNEW IT

7 WAS OBVIOUS THAT EMISSIONS TRADING WOULD BE MANDATED  
8 IN THE NEAR FUTURE IF NOT SOONER.  
9 YOU SEE REALLY A GREAT DIVERSITY. YES, IT  
10 IS GOOD TO HAVE HEAVY INDUSTRY, CHEMICALS, AND THE  
11 ELECTRIC POWER SECTOR, SOME VERY BIG ELECTRIC POWER  
12 GENERATORS; BUT YOU DON'T REALLY GET THE GAINS FROM  
13 TRADING UNTIL YOU GET THAT DIVERSITY; AND DIVERSITY  
14 COMES FROM FOLKS LIKE DUPONT, FOLKS LIKE WASTE  
15 MANAGEMENT. WHERE IS WASTE MANAGEMENT? THEY'RE IN  
16 THERE SOMEWHERE. AND FOLKS LIKE IBM AND INTEL. IS  
17 VERY EXCITING ABOUT HAVING THOSE KIND OF INDUSTRIES  
18 IN THERE IS YOU LEARN VERY QUICKLY THAT SOME OF THE  
19 CHEAPEST WIN-WIN MITIGATION OPTIONS ARE IN THE NON-CO2  
20 GASSES. SO INTEL AND STMICROELECTRONICS CAN CHANGE  
21 THE CHEMICALS THEY USE IN THEIR PLASMA CLEAN  
22 (PHONETIC) PROCESS FOR SEMICONDUCTOR MANUFACTURING.  
23 DUPONT CAN PUT IN EQUIPMENT AT REASONABLE COST . . .  
24 SPECIES INVASION, TO MITIGATE NITROUS OXIDE EMISSIONS  
25 . . . WE'VE GOT A NUMBER OF FOREST PRODUCT COMPANIES

0796

1 WHO ARE LOOKING AT THIS ON AN INDUSTRIAL AND  
2 SEQUESTRATION AND BIOFUELS BASIS. SO THEY'RE  
3 THINKING STRATEGICALLY THIS IS THEIR CHANCE. AS YOU  
4 NOTE, WE HAVE A HANDFUL OF BRAZILIAN COMPANIES WHO  
5 HAVE TAKEN ON THE EMISSION REDUCTIONS COMMITMENTS  
6 THAT WE EMPLOY. SO TO SOME DEGREE, MAYBE THIS  
7 BOTTOM-UP APPROACH IS TO HELP BREAKTHROUGH THE KYOTO  
8 BOUNDARY, IF YOU WILL.

9 A NUMBER OF MUNICIPALITIES, CITIES --  
10 CHICAGO; MELBOURNE, AUSTRALIA; PORTLAND; STATES --  
11 ILLINOIS; NEW MEXICO. NOW WHEN THESE STATES JOINED  
12 UP, SOME FOLKS IN THE ADVOCACY COMMUNITY SAID STATES  
13 SHOULD FOCUS ON POLICY AND SHOULD NOT BE OUT THERE,  
14 YOU KNOW, GETTING THEIR HANDS DIRTY IN CAP-AND-TRADE.  
15 AND WHAT THESE STATE GOVERNMENTS HAVE SAID IS, YOU  
16 KNOW WHAT, WE CAN WALK AND CHEW GUM AT THE SAME TIME.  
17 WE CAN DO POLICY, AND WE CAN GET OUR HANDS DIRTY, AND  
18 WE CAN LEARN THE DETAILS OF IT. WE'RE NOT THE  
19 DUMBEST FOLKS IN THE ROOM WHEN WE START PASSING THESE  
20 REGULATIONS. AND WE'VE GOT A NUMBER OF UNIVERSITIES  
21 LOOKING AT THE EDUCATIONAL OPPORTUNITIES. SO  
22 DIVERSITY IS WHERE YOU WANT TO BE, I THINK, IN ANY  
23 CAP-AND-TRADE SYSTEM, SO YOU CAN BRING IN LOW-COST  
24 REDUCTIONS.

25 NOW, THIS IS THE COMMITMENT SYSTEM THESE

0797

1 FOLKS HAVE AGREED TO. THE FOLKS WHO JOINED IN THE  
2 FIRST PHASE OF THE PROGRAM AGREED TO A 4-PERCENT CUT  
3 OVER FOUR YEARS. AND THE SCIENTISTS IN YOU WILL SAY  
4 THAT'S NOT VERY MUCH. OF COURSE, IT'S NOT VERY MUCH.  
5 IT'S A NUMBER WE CAN NEGOTIATE, WE CAN GET CONSENSUS  
6 ON, WE CAN GET THE SYSTEM GOING, AND GET SOME  
7 FRICTION, HAVE A PRICE. BUT IF YOU START EARLY AND  
8 STAY AT A STEADY SCHEDULE OF 1 PERCENT A YEAR, YOU  
9 WILL SEE IN A MOMENT THAT KIND OF PACE OPERATING OVER  
10 THE LONG HAUL.

11 NOW, WE AGREED PARTWAY THROUGH THE FIRST

12 PHASE OF THE PROGRAM TO CONTINUE THE PROGRAM WITH  
13 2 MORE PERCENTAGE POINT REDUCTIONS BY 2010. AND THE  
14 MEMBERS OF THE EXCHANGE WERE VERY SMART. THEY SAID,  
15 LET'S NOT CLOSE THE DOOR AND EXPECT PEOPLE TO SLAM  
16 THE BRAKES. SOMEBODY WANTS TO JOIN THE EXCHANGE  
17 ANEW, LET THEM GET TO THE SAME POINT AS THE ORIGINAL  
18 MEMBERS AND LET THEM CATCH UP.

19 NOW, SOMETIMES THERE'S VERY LITTLE THINGS  
20 IN OUR RULES THAT ARE MADE, THE SYSTEM'S RULES THAT  
21 CAN SOMETIMES BE BIG THINGS; AND ONE WONDERS IF A  
22 DEVELOPING COUNTRY WAS TO SIGN ON TO A COMMITMENT  
23 SYSTEM AND WE WERE ALL TO AGREE TO SORT OF GET TO  
24 SOME SIMILAR END POINT, TO GIVE THEM A CHANCE TO SORT  
25 OF SLOWLY CATCH UP, THAT GIVES US A MODEL IN SOME

0798

1 SENSE. SO THERE'S A LOT OF INTERESTING DYNAMICS TO  
2 THAT SCHEDULE, BUT A LOT OF FOLKS HAVE REALLY JUST  
3 COME AROUND TO THE ISSUE, AND WE HAVE GOT QUITE A  
4 NUMBER OF INDUSTRIES THAT HAVE JOINED THE EXCHANGE  
5 FOR PHASE 2 OF THE PROGRAM. AND WE'RE JUST NOW  
6 FORMING A COMMITTEE TO SET PHASE 3 OBJECTIVES FOR A  
7 POST-2010 ENVIRONMENT. WE CONTINUE TO BE UNDER THE  
8 ASSUMPTION THAT THERE WILL BE A NEED FOR SUCH A  
9 MECHANISM INDEFINITELY.

10 NOW, THIS IS WHAT I WAS TALKING ABOUT:  
11 1 PERCENT A YEAR MAY NOT SOUND LIKE A HECK OF A LOT;  
12 BUT IF YOU GET STARTED, YOU'LL FIND THAT YOU'RE GOING  
13 TO BE AHEAD OF THIS TRAJECTORY, THIS SORT OF VERY  
14 PERSISTENT TRAJECTORY. I KNOW WE HAD A BLIP LAST  
15 YEAR WITH HIGH ENERGY PRICES AND MILD WEATHER, BUT  
16 MOST OF THE LEGISLATIVE PROPOSALS CALL FOR 1 AND A  
17 HALF TO 2 PERCENT A YEAR REDUCTION SCHEDULES. I NEED  
18 TO UPDATE THIS TO INCLUDE SENATOR BINGAMAN'S  
19 PROPOSAL, WHICH IS A LITTLE BIT DELAYED SORT OF  
20 GRAPH. BUT BY GETTING STARTED EARLY, EITHER AT A  
21 FASTER OR SLOWER PACE, WE'RE GOING TO BE AHEAD OF THE  
22 FEDERAL PROGRAMS FOR ABOUT ANOTHER 20 YEARS. SO IT'S  
23 SORT OF THE TORTOISE WINS THE RACE IN THIS SCENARIO.  
24 SO SLOW BUT STEADY IS A GOOD WAY TO GO, PARTICULARLY  
25 IF YOU CAN GET THE SYSTEM STARTED EARLY ON.

0799

1 AND THIS IS, ACTUALLY, A DATED GRAPHIC,  
2 BUT, YOU KNOW, IT KIND OF GIVES YOU A SENSE, THIS IS  
3 REALLY A NATIONAL MARKET, THIS IS A NATIONAL SYSTEM  
4 WITH GOOD SCALE. AND IN SOME SENSE THAT'S WHAT THE  
5 U.S. HOUSE OF REPRESENTATIVES SAID TO US. SPEAKER  
6 PELOSI ASKED THE HOUSE TO GO GREEN. AND THE  
7 ADMINISTRATOR OF THE HOUSE SAID: LOOK, WE CAN CHANGE  
8 OUT LIGHT BULBS, WE'RE GOING TO CHANGE SOME OF OUR  
9 POWER PLANT FUELS, BUT WE'RE GOING TO HAVE A  
10 RESIDUAL. WE WOULD LIKE TO MAYBE NEGATE THAT OR SORT  
11 OF ADDRESS THAT, THAT 30,000 TONS OF LEFTOVER  
12 EMISSIONS BY BUYING CREDITS FROM AMERICANS THROUGHOUT  
13 THE SYSTEM. SO WE RECENTLY CONDUCTED A REVERSE  
14 AUCTION, WHERE A VARIETY OF MITIGATION PROJECTS DONE  
15 THROUGHOUT THE UNITED STATES WERE ALLOWED TO OFFER TO  
16 SELL INTO THE SYSTEM. AND A GOOD BIPARTISAN GROUP OF



17 HOUSE MEMBERS SHOWED UP TO ANNOUNCE THAT, HEY, YOU  
18 KNOW, WE'RE GETTING IN THE MARKET, TOO. WE'RE  
19 ADDRESSING OUR CARBON FOOTPRINT.

20 AND YOU'VE NOTICED THAT I HAVEN'T USED THE  
21 PHRASE "CARBON NEUTRAL" BECAUSE I DON'T THINK I KNOW  
22 WHAT THAT MEANS. AND WE'RE TRYING TO AVOID THAT ONE.

23 BUT THE HOUSE WANTED TO GET INTO THE GAME.  
24 AND WE SAID, YOU'VE GOT ALL KINDS OF AMERICANS --  
25 FARMERS, FORESTERS, LANDFILL OPERATORS -- WE'D LIKE

0800

1 TO BUY AMERICAN. OKAY. AND THAT'S FINE. WE WANTED  
2 OUR CANADIANS IN THERE, BUT THEY SAID, LET'S KEEP IT  
3 AMERICAN FOR THE MOMENT.

4 NOW, WE'VE GOT ANOTHER GROUP OF FOLKS THAT  
5 WANTED TO BE AT THE TABLE BUT DIDN'T HAVE SIGNIFICANT  
6 EMISSIONS. WE SAID, IF YOU'RE AN OFFICE-BASED  
7 COMPANY OR AN NGO, YOU WANT TO BE IN THERE, QUANTIFY  
8 YOUR EMISSIONS, AGREE TO RETIRE THAT MANY TONS OF  
9 PERMITS EACH YEAR UNDER AN AUDIT STRUCTURE, AND COME  
10 ON IN. AND WE GET A LOT OF BRAIN POWER FOR THAT DOOR  
11 OPENING, IF YOU WILL, BUT WE ALSO GET SOME BLESSED  
12 COVER, IF YOU WILL. I DON'T KNOW WHERE -- WHERE'S  
13 THE RELIGIOUS GROUPS? WE'VE GOT RELIGIOUS FOLKS OVER  
14 THERE SOMEWHERE, PRAYING FOR THE SUCCESS OF CCX, SO  
15 WE'RE HAPPY ABOUT THAT.

16 IF YOU THINK BROADLY OF THE INDUSTRIAL SIDE  
17 OF THE MARKET AS THE DEMAND SIDE -- AND SOME OF THOSE  
18 ARE SELLERS AND SOME ARE BUYERS -- YOU CAN ALSO THINK  
19 BROADLY OF THIS PART AS THE TRADERS AND THE SUPPLY  
20 SIDE. NOW, WHAT YOU'LL SEE IN A MOMENT IS A  
21 STRUCTURE WHEREBY WE SET RULES AND ALLOW THOSE RULES  
22 TO EVOLVE FOR PROJECT-BASED CREDITS TO COME INTO THE  
23 SYSTEM. AND YOU'LL UNDERSTAND BETTER IN A MOMENT WHY  
24 WE DID THAT. AND WHAT WE ALSO SAID IS WE WANT PEOPLE  
25 TO THE BE BUNDLERS. YOU CAN EITHER BE AN OFFSET

0801

1 PROVIDER, LIKE SENATOR LUGAR IS WITH HIS FARM OUTSIDE  
2 OF MINNEAPOLIS, OR YOU CAN BE A BUNDLER, AN  
3 AGGREGATOR, WHERE YOU BRING IN MULTIPLE LANDFILLS,  
4 MULTIPLE AGRICULTURAL METHANE PROJECTS, AND THAT'S  
5 WHAT A LOT OF THESE FOLKS DO, IS THEY GO OUT THERE  
6 AND BUNDLE UP IOWA FARM BUREAU, KENTUCKY CORN  
7 GROWERS, AND SO FORTH. AND THEN WE HAVE A LOT OF THE  
8 FINANCIAL COMMUNITY, TRADING, LOOKING TO INVEST,  
9 LOOKING TO DO FINANCIAL ENGINEERING IN THIS SPACE.  
10 AND THIS IS A LIMITED SAMPLE OF THOSE PLAYERS.

11 NOW, THIS IS AN ENTIRE SORT OF  
12 ENVIRONMENTAL RULE BOOK OF NOW 400 PAGES INTEGRATED  
13 INTO A COMMODITY MARKET, AND THE COMMODITY MARKET BIT  
14 HAS FIRST YOUR DATABASE, YOUR BANK ACCOUNT, WHICH WE  
15 CALL OUR REGISTRY. AND THAT IS LINKED SORT OF  
16 SEAMLESSLY TO THE ELECTRONIC TRADING PLATFORM. SO  
17 PEOPLE ARE TRADING 100 METRIC TON BLOCKS OF CARBON  
18 FINANCIAL INSTRUMENTS. AND WE USE FAIRLY  
19 CONSERVATIVE AND EVEN DOWNGRADED CONVERSION FACTORS  
20 TO TAKE THE GLOBAL WARMING POTENTIALS OF NITROUS OR  
21 METHANE AND OTHERS, TO CONVERT TO CO2. SO THE

22 CURRENCY IS METRIC TONS OF CO2, AND THAT'S THE  
23 CURRENCY IN OUR EUROPEAN EXCHANGE, CANADIAN EXCHANGE,  
24 AND SO FORTH. AND THIS IS ALL SORT OF WOVEN TOGETHER  
25 WITH A RULES SYSTEM: THE EMISSION REDUCTIONS, THE

0802

1 INDEPENDENT AUDIT BY NASD, THE VERIFICATION OF  
2 PROJECTS, AND SO FORTH.

3 NOW, THIS IS A TOPIC THAT HAS A LOT MORE  
4 CONTROVERSY THAN I GET, QUITE HONESTLY; AND YOU'LL BE  
5 REMINDED AS TO WHY. WE THOUGHT IT WAS CRITICAL TO  
6 ENGAGE -- EVEN IF IT IS GOING TO BE A SMALL PART OF  
7 THE SYSTEM, WHICH FOR THE TIME BEING IT IS -- TO  
8 ENGAGE EVERY POSSIBLE MITIGATION OPTION THAT IS OUT  
9 THERE. AND A LOT OF THESE FOLKS ARE NOT NATURAL TO  
10 INCLUDE UNDER OUR CAP. I CAN'T IMAGINE SOMEBODY  
11 COMING TO A LANDOWNER AND SAYING, YOU HAVE A PASTURE,  
12 YOU HAVE TO PUT A HUNDRED TONS OF TREES PER ACRE ON  
13 THAT PASTURE. I DON'T THINK THAT'S HOW AMERICA WOULD  
14 WORK. BUT IF YOU SAID, IF YOU WANT TO PUT A HUNDRED  
15 TREES ON YOUR ACREAGE AND YOU WANT TO SOAK UP SOME  
16 CARBON, WE CAN GET YOU A CREDIT UNDER A CONSERVATIVE  
17 STANDARDIZED FORMULA.

18 SO WHAT WE DID WAS JUST TO START OUT RIGHT  
19 AWAY, KIND OF LIKE THE FOLKS IN RGGI HAVE DONE, AND  
20 SAID IF YOU DO AG METHANE OR LANDFILL METHANE, AG  
21 SOILS AND REFORESTATION -- I THINK RGGI HAS SELECTED  
22 THOSE FIRST TWO AND ARE LOOKING AT SOME OF THESE  
23 OTHER ONES -- THEN YOU WILL GET A CREDIT.

24 THERE IS PREDICTABILITY. THE RULES ARE  
25 KNOWN. YOU WANT TO GO TO YOUR BANKER OR YOUR OTHER

0803

1 LENDER, YOU CAN BORROW AGAINST THESE RULES. AND WE  
2 HAVE SEEN THAT HAPPEN. AND THAT'S EXTREMELY  
3 IMPORTANT TO GET THAT CARBON FINANCE CYCLE GOING.

4 AND THIS IS A MODEST THING. THE PRICES ARE  
5 NOT HIGH COMPARED TO EUROPE; BUT THIS GENTLEMAN OVER  
6 HERE UP IN PRINCETON, MINNESOTA, THAT'S A CHECK FOR  
7 \$10,000. NOW, WHERE I COME FROM, THAT'S REAL MONEY.  
8 AND WHERE HE COMES FROM, WHERE THE AVERAGE DAIRY  
9 FARMER MAKES \$50,000 OR \$60,000 A YEAR, THAT'S A NICE  
10 BOOST TO INCOME, YOU KNOW, 15 OR 20 PERCENT. AND  
11 THAT IS A RECURRING CHECK HE CAN GET. EVERY YEAR THE  
12 VERIFIER WILL COME OUT THERE, CONFIRMING THE METHANE  
13 BURN THAT HE'S REALIZED AND SO FORTH. AND IT'S A LOT  
14 OF FUN TO WORK WITH THESE PEOPLE. I CAN'T TELL HOW  
15 EXCITING IT IS TO GET OUT THERE AND TOUCH AND FEEL  
16 THE CARBON AND THE TREES AND SOILS AND SO FORTH.

17 (LAUGHTER)

18 I MEAN THAT IN ALL SINCERITY. I LOVE  
19 WORKING WITH THE FORESTRY AND FARM BIT.

20 NOW, WE'VE TRIED TO PIGGY BANK ON THE  
21 EXISTING INFRASTRUCTURE OF VERIFIERS THAT ARE OUT  
22 THERE. AND IT TURNS OUT THAT IN SOME AREAS THERE'S  
23 LOTS OF TALENT, AND IN OTHER AREAS WHERE WE NEED MORE  
24 TALENT. AND WE'RE WORKING WITH SOME OF THE OTHER  
25 REGISTRY GROUPS THAT ARE EMERGING TO GET A

0804

1 VERIFICATION TRAINING PROGRAM EXPANDED.  
2 THERE'S ALL KINDS OF COMPLETELY TALENTED  
3 CONSULTING FORESTERS, OUR SOIL CROP SPECIALISTS, THAT  
4 HAVE NEVER DONE VERIFICATION WORK BEFORE. SO WE NEED  
5 TO SORT OF CONVERT THEM FROM FORESTRY CONSULTANTS TO  
6 FORESTRY VERIFIERS. AND WE HAVE GOT SOME OF THAT  
7 WORK UNDERWAY. WE HAVE BEEN ABLE TO FIND A PRETTY  
8 GOOD GROUP OF FOLKS SO FAR IN DOING THIS.

9 NOW THIS IS -- I'M NOT GOING TO TAKE YOU  
10 ALL THE WAY THROUGH THIS. BUT THIS IS FROM THE THIRD  
11 IPCC WORKING GROUP III. WHAT I DID WAS TO TAKE THE  
12 MITIGATION OPTIONS THAT WERE IDENTIFIED THIS PAST  
13 MAY, I THINK IT WAS, THROUGH MANY OF YOUR GOOD  
14 EFFORTS, AND BREAK THEM DOWN INTO SORT OF SIMPLIFIED  
15 STRUCTURES HERE, AND I DEDUCED APPROXIMATELY  
16 36 MITIGATION OPTIONS THAT ARE RECOGNIZED AS NOT ONLY  
17 VIABLE NOW, BUT IN MANY CASES VERY LOW COST OR  
18 NEGATIVE COST. OKAY. AND I HAVE MAPPED THEM OUT, AS  
19 WELL. DO OUR RULES ADDRESS THESE THINGS? AND I WAS  
20 KIND OF TICKLED -- THIS IS THE FIRST PAGE, THERE IS  
21 MORE COMING -- ESSENTIALLY, YOU KNOW, YES, OUR RULES  
22 ADDRESS THEM IMPLICITLY. SO IF YOU HAVE A CAP AND A  
23 PRICE ON CARBON, WILL YOU ENCOURAGE IMPROVED SUPPLY  
24 AND DISTRIBUTION EFFICIENCY? WILL YOU ENCOURAGE  
25 BIOFUELS, WHICH ARE TREATED AS ZERO CARBON IN THE

0805

1 ACCOUNTING? WILL YOU ENCOURAGE MORE EFFICIENT  
2 BUILDINGS? YES. STRAIGHT FORWARD, HAVING A CAP,  
3 HAVING A PRICE ON CARBON, HELPS OUT ON THOSE FRONTS.

4 BUT IF YOU REALLY WANT TO PENETRATE THE  
5 MARKET DOWN TO SMALLER MEASURES, SCHOOL DISTRICTS,  
6 INTO DEVELOPING COUNTRIES WHERE THERE ARE NOT CAPS,  
7 JUST HAVING A PRICE ON CARBON IS NOT ENOUGH. YOU  
8 NEED TO PUT IN SOME OTHER RULES AND SAY, IF I DO A  
9 BEST-IN-CLASS ENERGY EFFICIENCY PROJECT IN CHINA, DO  
10 I GET A CREDIT? THAT'S A FAIRLY COMPLEX PROCESS.  
11 AND IF YOU'RE GOING TO CHINA WITH THAT KIND OF  
12 PROJECT, WE WOULD REFER TO THAT AS AN OFFSET. AND  
13 WHEN YOU GET INTO A LOT OF OTHER AREAS THAT YOU, AT  
14 THE IPCC, RECOMMENDED AS THINGS THAT ARE VIABLE NOW,  
15 WHAT YOU FIND IS, SURE, THAT CARBON PRICE, JUST  
16 HAVING A CARBON PRICE ENCOURAGES A LOT OF THESE  
17 THINGS. BUT IN A LOT OF AREAS, JUST HAVING A CARBON  
18 PRICE DOESN'T GET YOU THERE. YOU NEED TO SIT DOWN  
19 AND HASH OUT RULES. HOW DO YOU QUANTIFY FORESTS?  
20 WHICH FORESTS COUNT? WHICH AGRICULTURAL SOILS  
21 PRACTICES COUNT? HOW MANY CREDITS CAN YOU GET? WHAT  
22 HAPPENS IF SOMEBODY TILLS UP THE LAND WHEN THEY HAVE  
23 BEEN CONSERVATION TILLAGE? DO YOU CANCEL ALL THE  
24 TONS? THE ANSWER FOR THE MOMENT IS YES, WE DO.

25 SO ALL OF THESE GOOD THINGS THAT YOU FOLKS

0806

1 HAVE IDENTIFIED AS IMPORTANT AND CURRENTLY VIABLE  
2 OPTIONS, THEY NEED WORK TO GET THEM INTO A MARKET.  
3 YOU CAN'T JUST, YOU KNOW, FLIP THE SWITCH, HAVE A  
4 CARBON PRICE, AND HOPE FOR THE BEST. SO WE'VE SPENT  
5 A LOT OF TIME ON THESE THINGS. AND I'M VERY EXCITED

6 TO SAY -- I GUESS I HAVE TO GO BACK ONE. YES,  
7 FLUORINATED GASSES, SUSAN AND I WERE TALKING ABOUT  
8 THIS AT LUNCH, WE SPENT A GOOD BIT OF TIME WITH FOLKS  
9 FROM EPA AND DUPONT FIGURING OUT WHAT SHOULD WE DO IF  
10 SOMEBODY HAS GOT A TANK FULL OF LEGALLY USABLE  
11 REFRIGERANTS AND THEY WANT TO DESTROY THEM, THEY WANT  
12 TO THERMALLY INCINERATE THEM, AND WE NEED THE  
13 OPPORTUNITY TO SOLVE THOSE. AND WE SAID, LET'S MAKE  
14 THIS REALLY LIKE A BOUNTY SYSTEM: YOU FIND THE GAS.  
15 YOU KILL THE GAS. YOU GET A CREDIT.

16 OKAY. BUT WE HAD TO HASH THIS OUT. YOU  
17 KNOW, THIS TOOK AWHILE WORKING WITH THESE EXPERTS.

18 SO I DON'T THINK HAVING A CAP-AND-TRADE  
19 SYSTEM IN PLACE JUST ON ITS OWN RIGHTS WILL GET THE  
20 JOB DONE. YOU'RE GOING TO NEED TO HASH OUT THOSE  
21 KINDS OF RULES, TO SAY WHEN DO YOU GET A CREDIT FOR  
22 KILLING OFF AN LDS GAS?

23 AND BY THE WAY, WHEN WE TOOK THAT VOTE, THE  
24 CHAIRMAN OF OUR COMMITTEE -- WHO IS A CANADIAN FELLOW  
25 WHO I WOULD SUBMIT IS PROBABLY MORE KNOWLEDGEABLE

0807

1 ABOUT OFFSETS THAN ANY CANADIAN, POSSIBLY WITH THE  
2 EXCEPTION OF HELEN HERE -- HE SAID: JEEZ, WE'RE JUST  
3 ABOUT TO VOTE ON EXPANDING THE INCLUDED SUITE OF GAS  
4 BEYOND SIX, INTO TO A SEVENTH FAMILY OF GASSES. DOES  
5 ANYBODY HAVE A PROBLEM WITH THAT? AND WE ALL KIND OF  
6 LOOKED AROUND AND WE SAID, LET'S GO WITH FOR IT, IT'S  
7 A GLOBAL WARMING GAS, AND IT'S ALSO AN OZONE  
8 DEPLETER, LET'S KILL THOSE OFF IF WE CAN.

9 SO THE POINT OF THIS IS A LOT OF THE  
10 MITIGATION OPTIONS THAT ARE AVAILABLE ARE IN THE  
11 CLASS OF WHAT WE WOULD CALL OFFSETS. PEOPLE HAVE TO  
12 GET BEYOND THEIR QUEASINESS ABOUT THIS NOTION THAT  
13 THE MITIGATION OPTIONS ARE DIVERSE AND ARE IN MANY  
14 SECTORS. THIS IS WHAT WE NEED, AND FRANKLY YOU LOOK  
15 AT THE NUMBERS, WE NEED THEM ALL. OKAY? WE DON'T  
16 HAVE THE LUXURY OF SAYING, YEAH, FORGET ABOUT THAT  
17 FARM STUFF, THAT'S NO GOOD, IT'S NOT PERFECT, WE  
18 HAVEN'T RESOLVED EVERY LAST QUESTION.

19 WE HAVEN'T RESOLVED EVERY LAST QUESTION IN  
20 ANY OF THIS STUFF WHEN IT COMES TO GLOBAL WARMING.  
21 WE HAVE TO TAKE THE BEST SCIENTIFIC KNOWLEDGE WE HAVE  
22 AND PLOW FORWARD, TEST IT OUT, GET BETTER, FIND HOW  
23 TO FIX THINGS WHEN WE FIND PROBLEMS.

24 AND AS I SAID, THIS IS THE FUN STUFF. YOU  
25 GO OUT THERE AND YOU SEE WILDLIFE, YOU GO OUT THERE

0808

1 AND SEE CLEANER WATER, MANY OF THESE MITIGATION  
2 OPTIONS ARE ALSO ADAPTATION OPTIONS. CONSERVATION,  
3 ONLY ABOUT 5 PERCENT OF U.S. AND CANADIAN CROPLAND IS  
4 CONTINUOUSLY SUBJECT TO LOW-DISTURBANCE CROPPING  
5 PRACTICES. SO WE SAID THAT'S A BEST-IN-CLASS  
6 PRACTICE. IT KEEPS CHEMICALS AND SOIL OUT OF THE  
7 WATER AND PULLS CARBON FROM THE AIR. AND SOME PEOPLE  
8 SEEM TO DISLIKE WIN-WIN OPPORTUNITIES. THEY SEEM TO  
9 WANT CARBON TO BE PAINFUL AND COSTLY TO MITIGATE. IN  
10 OUR VIEWPOINT, IT'S EXACTLY THE OPPOSITE. GET THAT

11 CHEAP STUFF GOING, GET AS MUCH OF THAT AS WE CAN, AND  
12 LET TECHNOLOGY CONTINUE TO EVOLVE.

13 SO I WAS VERY PROUD OF MY COLLEAGUES WHEN I  
14 WAS ABLE TO REPORT THAT IN ALMOST ALL OF THESE THREE  
15 DOZEN MITIGATION OPTIONS THAT WERE IDENTIFIED BY  
16 IPCC, WE HAVE RULES. WE DO HAVE OUR WORK CUT OUT FOR  
17 US IN A COUPLE OF OTHER AREAS. OKAY, WE DON'T HAVE  
18 RULES FOR EVERYTHING, BUT WE'LL KEEP WORKING ON IT  
19 AND THIS IS THE WAY TO GO.

20 SO LET ME SORT OF WRAP UP WITH A FEW MORE  
21 OBSERVATIONS. THE TRADING IN THE MARKET STARTED OUT  
22 SLOWLY. WE ONLY HAD 13 FOUNDING MEMBERS -- AMERICAN  
23 ELECTRIC POWER AND INTERNATIONAL PAPER, THE CITY OF  
24 CHICAGO. THE GOALS WEREN'T ALL THAT TOUGH IN THE  
25 BEGINNING, AND YOU CAN SEE THE PRICE CAME UP, PRETTY  
0809

1 LOW, YOU KNOW, UNDER A DOLLAR A TON. I REMEMBER  
2 ENERGY SECRETARY ABRAHAM HELPED US CUT THE RIBBON AND  
3 ANNOUNCED THE AUCTION RESULTS. AND ONE OF HIS  
4 ASSISTANT SECRETARIES SAID: ARE YOU NERVOUS ABOUT  
5 THIS PRICE? HEY, IT'S NOT EVEN A DOLLAR A TON.

6 WE SAID NOT AT ALL. THE AUDITS ARE COMING  
7 IN CLEAN. THE TARGETS ARE BEING ACHIEVED. AND AS A  
8 WHOLE, THE MEMBERS OF THE EXCHANGE HAVE CUT EMISSIONS  
9 CONSIDERABLY MORE THAN THEY HAVE HAD TO. SO THERE IS  
10 VERY GOOD NEWS ON THAT FRONT. THEY THINK THEY HAVE  
11 DONE THE RIGHT THINGS TO PREPARE THEMSELVES FOR EARLY  
12 ACTION CREDITING.

13 BUT FURTHER, THOUGH, THE TRADING ACTIVITY  
14 HAS REALLY STARTED TO PICK UP. ON A TYPICAL DAY, WE  
15 HANDLE ABOUT HALF A MILLION TO A MILLION DOLLARS OF  
16 VALUE FROM BUY SIDE TO SELL SIDE. WE TYPICALLY  
17 HANDLE ABOUT TWO TO THREE HUNDRED TIMES THAT A DAY IN  
18 EUROPE. OKAY. SO IT'S A VERY DIFFERENT ENVIRONMENT,  
19 BUT THAT GIVES A SENSE OF WHERE THINGS ARE GOING.

20 AND HERE ARE SOME OF THE ON-THE-GROUND  
21 LEARNINGS THAT OUR MEMBERS HAVE REPORTED. IT'S  
22 GIVING US A METRIC. IT'S GIVING US GOALS. WE'RE  
23 GOOD AT GOALS. WE CAN MANAGE TO GOALS.

24 A LOT OF POLITICAL COMMENTARY. WE ARE AN  
25 APOLITICAL ENTERPRISE, BUT IT HAS BEEN NICE TO SEE  
0810

1 BIPARTISAN'S COMMENTS ON THE WORK. EVERYBODY  
2 RECOGNIZES IT'S GOOD TO HAVE SOME EXPERIENCE OUT  
3 THERE. BECAUSE SOME OF OUR MEMBERS ARE GOING TO HAVE  
4 THEIR POWER PLANTS, HEAVY INDUSTRIAL FACILITIES  
5 MIGRATING TO THE RGGI SYSTEM OR TO THE CANADIAN  
6 SYSTEM OR TO THE WESTERN SYSTEM. AND THEY'RE GOING  
7 TO GO IN THERE WITH REALLY GOOD HANDS-ON KNOWLEDGE  
8 AND BE ABLE TO HELP DESIGN THOSE SYSTEMS BASED ON  
9 SOME ON-THE-GROUND EXPERIENCE.

10 AND I'M NOT GOING TO GO FOREVER ON THESE  
11 POLITICS, BUT I DID WANT TO SPEND JUST A MINUTE ON  
12 WHERE WE ARE IN THE U.S. ON POLICY ENVIRONMENT, AND  
13 WE WELCOME YOUR COMMENTS OR CRITIQUES OF THIS. BUT  
14 MY ASSESSMENT THERE'S A LOT OF BILLS OUT THERE, AS  
15 WAS INDICATED ON DAY ONE, BUT IT KIND OF LOOKS LIKE

16 THERE'S TWO SENATE PIECES OF LEGISLATION THAT LOOK  
17 LIKE THE MIDDLE GROUND BETWEEN WHICH A FINAL POLICY  
18 MIGHT GET FRAMED OUT. AND THE MORE CONSERVATIVE, IT  
19 HAS A LITTLE MORE INDUSTRY SUPPORT, IS THE BINGAMAN  
20 AND SPECTER BILL. ALSO VERY BIPARTISAN IS THE  
21 LIEBERMAN/WARNER BILL, AND THE RANGE OF CO-SPONSORS  
22 THEY'VE GOT IS PRETTY IMPRESSIVE. SO THESE THINGS  
23 TELL ME THAT THERE IS SOME TRACTION HERE. THE  
24 BINGAMAN BILL WOULD HAVE A SAFETY VALVE, WHERE IF THE  
25 PRICE OF THE PERMITS GETS TOO HIGH, YOU CAN GO TO A  
0811

1 FED WINDOW, AND THE PRICE STARTS AT ABOUT \$12 A TON,  
2 AND IT SHOULD GO UP SOMETHING LIKE A DOLLAR A YEAR.  
3 AND THE CONCERN THERE IS THAT WE DON'T WANT TO SPEND  
4 TOO MUCH. WE WANT TO CONTAIN THE SYSTEM. AND BOTH  
5 THE PROGRAMS WOULD START WITH 2012. BOTH OF THE  
6 PROGRAMS HAVE EXPLICIT OPPORTUNITIES FOR FARM AND  
7 FOREST AND OTHER OFFSET-BASED MITIGATION OPTIONS.  
8 BOTH OF THEM INVOLVE A SIGNIFICANT AMOUNT OF  
9 AUCTIONING IN THE INITIAL ALLOTMENT SYSTEM, WHICH HAS  
10 NEVER BEEN DONE BEFORE IN ANY EMISSIONS MARKET. SO  
11 THERE'S SOME NEW GROUND THERE. AND BOTH OF THEM  
12 WOULD REGULATE THE TRANSPORT SECTOR UPSTREAM AT THE  
13 FUEL VENDOR LEVEL. SO YOU CAN THINK OF AVIATION AND  
14 MARINE AND AUTO AND TRUCK AND RAIL AS HAVING THEIR  
15 EMISSIONS ACCOUNTED BY THE FUEL VENDOR, AND THAT'S A  
16 BIG ISSUE. SO THAT'S HOW YOU GET THE TRANSPORT IN  
17 THERE, IS THAT IT WILL GO UPSTREAM INTO A HIGHER  
18 POINT OF REGULATION.

19 THERE IS SOME REAL QUESTIONS AS TO HOW MUCH  
20 PROJECT-BASED CREDITS WILL BE ALLOWED, EITHER  
21 DOMESTICALLY OR INTERNATIONALLY. AND WE'RE SEEING  
22 SOME REAL PUSH BACK THAT AMERICAN INDUSTRY IS NOT  
23 PARTICULARLY CRAZY IN SOME QUARTERS ABOUT SENDING  
24 MONEY TO MITIGATION PROJECTS IN PLACES THEY VIEW AS  
25 COMPETITORS, LIKE THE CHINESE STEEL INDUSTRY, WHICH  
0812

1 WE'RE DEALING WITH IN OUR OWN EXCHANGE. SO THAT'S A  
2 REAL OPEN QUESTION.

3 WILL THERE BE A SAFETY VALVE LIKE SENATOR  
4 BINGAMAN'S PRICE-LIMITING MECHANISM? OR WILL THERE  
5 BE SOME OTHER SORT OF BACKSTOP, LIKE A FEDERAL  
6 RESERVE BOARD FOR CARBON THAT SENATOR LIEBERMAN  
7 PROPOSES. WHAT THE OTHER TECHNOLOGY INITIATIVES?  
8 ARE WE GOING TO HAVE A CAFE STANDARD TIGHTENING NEXT  
9 WEEK OR IN THE NEAR FUTURE? WILL THE MARKETS BE  
10 LINKED? WILL WE BE ABLE TO TRADE BETWEEN THE U.S.  
11 AND EUROPE AND CANADA AND SO FORTH?

12 AND THEN THERE IS THIS SORT OF BIG ONE:  
13 HOW WE DISTRIBUTE THE PERMITS. AND AUCTIONING  
14 APPEARS TO BE A SIGNIFICANT PART OF THAT STRUCTURE.  
15 AND THINGS LIKE WHAT ABOUT IF I PUT UP A NEW POWER  
16 PLANT; DO I GET PERMITS OR NOT? VERY SENSITIVE  
17 ISSUES.

18 AS WAS INDICATED BY JOANNE, WE'RE SEEING A  
19 NUMBER OF PROVISIONS IN THE LEGISLATION THAT SORT OF  
20 LOOK LIKE SOME OF THE PROVISIONS THAT WE HAVE HAD.

21 AND THAT'S GOOD. PEOPLE SHOULD TAKE WHAT WORKS.  
22 THAT'S ALWAYS BEEN OUR PHILOSOPHY. WE DIDN'T HAVE A  
23 LARGE AUCTION AT THE BEGINNING OF OUR PROGRAM BECAUSE  
24 WE LOOKED AT THE SO2 PROGRAM; AND THE AUCTIONS THEY  
25 HAD WERE JUST TO STIMULATE THE MARKET, NOT TO COLLECT  
0813

1 REVENUES. WE SAID, IF THAT WORKED THERE, WE'LL  
2 PHOTOCOPY THAT.

3 AND WE HOPE THAT THERE IS NOT A WHOLE LOT  
4 OF NEW AND RADICAL INNOVATION, BECAUSE I THINK THAT'S  
5 WHERE YOU HAVE MORE RISK.

6 AND WE HOPE, ALSO, THAT THE LEGISLATION  
7 ALLOWS FOR ADAPTABILITY, BECAUSE YOU DON'T WANT TO  
8 LOCK IT AND FIX IT. YOU WANT TO PUT THE SYSTEM IN  
9 AND BE READILY IMPROVABLE BASED ON YOUR LEARNINGS.

10 SO, WITH THAT, LET ME SEE IF -- I HOPE  
11 THERE ARE SOME COMMENTS AND SOME CRITICISMS AND  
12 DEBATES THAT WE CAN GET STARTED FOR A FEW MINUTES,  
13 AND I'M LOOKING FORWARD TO THE CHANCE TO HAVE THOSE  
14 DISCUSSIONS.