

DR. ELKINS: MY NAME IS JIM ELKINS.

19 IT SEEMS LIKE THAT THIS WOULD BE A GREAT
20 WAY TO EDUCATE THE PUBLIC IF INDIVIDUALS COULD
21 ACTUALLY TRADE; YOU KNOW, AN INDIVIDUAL WHO PUTS
22 SOLAR PANELS ON HIS HOUSE OR BUYS A PRIUS, THAT HE
23 COULD GET SOME SORT OF CREDIT AND BUY A SHARE.
24 IS THAT SOMETHING THAT'S GOING TO OCCUR, OR
25 HAS IT ALREADY OCCURRED?

0814

1 I NOTICED THAT YOU MENTIONED SOME FARMERS
2 ARE GETTING CREDIT. BUT IS A BUSINESS THE ONLY THING
3 THAT CAN JOIN THE MARKET?

4 MR. WALSH: THANK YOU FOR THE QUESTION.
5 IT'S A GOOD QUESTION AND A GOOD POINT.

6 ONE OF THE RECOMMENDATIONS THAT WE ARE
7 MAKING IS THAT WE UNDERSTAND YOU WANT TO IMPOSE
8 REGULATION AND YOU CHOOSE TO IMPOSE REGULATION ON
9 LARGE EMITTING SOURCES, BUT DON'T KEEP OUT THOSE
10 LITTLE GUYS, ONE, WHO MIGHT WANT TO TRADE FOR THEIR
11 OWN PURPOSES, AND TWO, WHO COULD BE CHEAP, EFFECTIVE
12 SOURCES OF MITIGATION.

13 IN FACT, ONE OF THE THINGS THAT WE HAVE
14 PROPOSED IS WE ENCOURAGE, AS WE ALREADY DO IN CCX,
15 ENCOURAGE INCLUSION OF OVERSEAS EMITTING SOURCES THAT
16 ARE OWNED BY SUBSIDIARIES OF U.S. COMPANIES. SO IF
17 OUR VIEW IS TO SPREAD THE KNOWLEDGE BASE AND THE
18 MITIGATION OPTIONS, WE WANT TO OPEN UP AS FAR AS WE
19 COULD.

20 ONE OF THE MOST FUN THINGS I HAD IN RUNNING
21 THOSE SO2 AUCTIONS WAS TO HAVE SOME SCHOOL CHILDREN
22 FROM UPSTATE NEW YORK COME IN AND BUY AND RETIRE SOME
23 SO2 ALLOWANCES. NOW, THEY COME IN AT \$66 A TON.
24 RIGHT? WASN'T THAT RIGHT, BRUCE? I KNOW BRUCE,
25 THINK BRUCE WAS SOMEWHERE AROUND THE MARKET AT THAT

0815

1 TIME. AND THESE THINGS TRADE AT \$500 A TON NOW.

2 SO KEEPING IT OPEN TO THE PUBLIC I THINK IS VERY
3 IMPORTANT.

4 I WOULD NOTE THAT WE CONSIDER OURSELVES TO
5 NOT BE IN THE GAME AT OUR EXCHANGE OF RETAIL
6 OFFSETTING, WHERE PEOPLE ARE BUYING CREDITS AND
7 ADDRESSING THEIR SUV AND THEIR AIR TRAVEL. THAT'S
8 NOT WHAT WE'RE ABOUT. WE'RE ABOUT BUILDING BIG
9 INDUSTRIAL-SCALE SYSTEMS, AND WE'LL LEAVE IT TO THE
10 RETAILERS TO TAKE CARE OF THAT.

11 DR. KEITH: I THINK THAT CCX AND SOME OF
12 THE THINGS LIKE IT HAVE DONE A TERRIFIC JOB IN
13 GETTING PEOPLE TO THINK ABOUT THIS ISSUE, GETTING
14 COMPANIES TO LOOK INSIDE THEIR OPERATIONS AND FIGURE
15 OUT WHERE THEIR EMISSIONS ARE AND HOW TO MANAGE THEM.

16 MR. WALSH: HERE COMES THE "BUT."

17 DR. KEITH: YEAH, THERE IS A "BUT." SORRY,
18 BUT THERE IS.

19 AND THE QUESTION IS HOW TO SEPARATE THE TWO
20 PIECES, I GUESS. SO IT IS IMPORTANT TO SAY -- AND
21 YOU KNOW AND EVERYBODY ELSE IN THIS GAME KNOWS IT --
22 IT IS VERY DIFFERENT TO TALK ABOUT CAP-AND-TRADE THE

23 WAY WE HAD IT IN SULFUR, WHERE THE DEAL IS YOU HAVE A
24 FIXED NUMBER OF PERMITS AND AT THE END OF THE YEAR
25 YOUR AMOUNT OF EMISSIONS -- WHICH IN THAT CASE WERE
0816

1 WAYS TO MEASURE -- HAVE TO MATCH YOUR PERMIT
2 ALLOCATION OR THEY'LL LOCK YOUR PLANT UP. THAT WAS A
3 VERY SIMPLE SYSTEM AND PROFOUNDLY WORKABLE FOR THAT
4 REASON. SO, REMEMBER UNDER THAT SYSTEM, YOU GOT NO
5 BENEFIT FOR THE DIFFERENCE BETWEEN WHAT YOUR
6 EMISSIONS ACTUALLY WERE AND WHAT YOU SAID THEY WERE
7 GOING TO BE. IT MADE ABSOLUTELY NO DIFFERENCE WHAT
8 YOU SAID WAS GOING TO HAPPEN; WHAT MATTERS IS WHAT
9 ACTUALLY DID HAPPEN.

10 AND LET'S THINK THROUGH WHAT THE PROBLEMS
11 ARE WITH OFFSETS BECAUSE THEY'RE DEEP. I THINK
12 THEY'RE UNFIXABLE BECAUSE THEY'RE FUNDAMENTAL.

13 IN AN OFFSET SYSTEM, I GET MONEY FOR THE
14 DIFFERENCE BETWEEN WHAT I SAID MY EMISSIONS WOULD
15 HAVE BEEN IN SOME ALTERNATE UNIVERSE WHERE I DIDN'T
16 GET THE MONEY, AND WHAT THEY ARE. AND THERE IS AN
17 ASYMMETRY OF PUBLIC AND PRIVATE INFORMATION THERE
18 THAT IS VERY HARD TO BREAK.

19 AND I KNOW PEOPLE LIKE CCX HAS DONE
20 ENORMOUS WORK TRYING TO AUDIT THAT OUT. BUT I THINK
21 WE SEE EVIDENCE IN CHINA AND BRAZIL AND ELSEWHERE,
22 THAT YOU JUST CAN'T AUDIT OUT ECONOMICS AND
23 INCENTIVES; THAT, IN FACT, WE SEE AGAIN AND AGAIN
24 THAT PEOPLE ARE FINDING WAYS TO GAIN THIS SYSTEM.
25 THINK ABOUT IT. THINK ABOUT IT -- I WILL MAKE TWO

0817

1 OTHER ANALOGIES: THE ISSUE IS THAT YOU WANT -- IF
2 YOU'RE REGULATING, YOU HAVE TO REMEMBER THE NUMBER OF
3 REGULATORS IS SMALL COMPARED TO THE NUMBER OF PEOPLE
4 IN THE BUSINESS WORLD. AND YOU HAVE TO HAVE
5 REGULATIONS THAT ARE SIMPLE ENOUGH THAT THEY'RE HARD
6 TO GAIN. AND THIS IS FUNDAMENTALLY EASY TO GAIN
7 BECAUSE OF THE UNOBSERVABILITY OF THE ALTERNATE
8 UNIVERSE CASE. AND WE HAVE ENORMOUS DATA NOW THAT A
9 SUBSTANTIAL FRACTION OF THESE CDM-LIKE CREDITS -- I
10 DON'T MEAN TO SAY ALL CREDITS -- INVOLVE A GREAT DEAL
11 OF GAMING. SO THERE REALLY IS A QUESTION.

12 I'VE BEEN SLIDING IN ANOTHER QUESTION: HOW
13 DO WE DIVIDE THE TWO THINGS UP? HOW DO WE ADMIT THAT
14 WE ACTUALLY HAVE GOT SOME BENEFIT FOR CDM CREDITS,
15 BUT THAT WE'RE ALSO GOING TO DO SOMETHING DIFFERENT
16 IN THE DEVELOPED WORLD WHERE WE HAVE WHAT I WOULD
17 CALL MORE REAL CREDITS LIKE THE OLD SULFUR CREDITS.

18 MY CONCERN IS NOT THAT WE'RE DOING CDM
19 THINGS, BUT WE'RE MIXING THE TWO POTS TOGETHER; AND
20 THAT TO SOME EXTENT, THE KIND OF FLAKY STUFF WILL
21 MAKE IT DIFFICULT TO ACTUALLY EXECUTE THE HARD
22 THINGS.

23 DR. WALSH: IT'S A GOOD OBSERVATION, IT'S
24 AN EXCEPTIONALLY TOUGH QUESTION. I'M GOING TO ANSWER
25 IT PARTIAL, AND THEN I WILL TRY TO ANSWER YOUR GLOBAL

0818

1 QUESTION.

2 ON THE PARTIAL, WHAT WE HAVE DECIDED UNDER
3 MANY OF OUR RULES IS THAT WE'RE BEST OFF ACCEPTING
4 THE POSSIBILITY -- AND IT TURNS OUT IT'S NOT THAT BIG
5 A NUMERIC POSSIBILITY -- THAT IF WE SET A STANDARD
6 AND WE SAY, YOU ACHIEVE THAT STANDARD, YOU DO
7 SOMETHING HIGHLY UNUSUAL AND YOU GET THERE, THAT SOME
8 OF THE PEOPLE WHO ARE GOING TO GET CREDITS ALREADY
9 WERE DOING IT. AND WE DECIDED THAT WE'RE GOING TO
10 LIVE WITH THAT. BECAUSE IT'S NOT THE 5 PERCENT WE'RE
11 SO CONCERNED ABOUT; IT'S THE 95 PERCENT THAT WE'RE
12 TRYING TO INCENTIVIZE AND GET THEM GOING. SO ANY
13 SYSTEM THAT SETS STANDARDS IS GOING TO HAVE SOME
14 FALSE POSITIVES.

15 OUR VIEW IS WE'VE GOT TO MAKE AN ENORMOUS
16 PUSH HERE. THIS BUSINESS ABOUT SEPARATING OUT AT A
17 MICRO LEVEL, COUNTING PENNIES WHEN WE NEED \$20 AND
18 \$100 BILLS. I'M WILLING TO ACCEPT A LITTLE BIT OF
19 ERROR. ANY SYSTEM WILL HAVE SOME ERROR: ERROR IN
20 CLIMATE UNDERSTANDING, ERROR IN CLIMATE IMPACTS,
21 ERROR IN CLIMATE MITIGATION, ERROR IN HUMAN AND
22 ECOLOGICAL IMPACTS, BUT WE STILL KNOW WHICH WAY WE
23 HAVE TO GO.

24 I KNOW THAT WE'LL BE BETTER OFF IF WE PLANT
25 MORE FORESTS ON WHAT IS UNFORESTED LAND IN TERMS OF

0819

1 CARBON REMOVAL. I KNOW THAT IF 95 PERCENT OF THE
2 FARMERS DID CONSERVATION TILLAGE INSTEAD OF 5
3 PERCENT, WE'RE BETTER OFF.

4 SO OUR GOAL IS TO SET SOME CLEAR STANDARDS,
5 PUT A HARD THRUST, AND LET THE SYSTEM GET STARTED.
6 AND THIS BUSINESS ABOUT ADDITIONALITIES IS, FRANKLY,
7 A TRANSITIONAL ISSUE. WE NEED AS MANY OF THESE
8 THINGS AS WE CAN.

9 NOW, IN THE BROADER GLOBAL CONTEXT IN TERMS
10 OF SEPARATING OUT WHAT WOULD HAVE HAPPENED IN INDIA
11 AND CHINA AND WHAT WOULD NOT HAVE HAPPENED, THIS IS
12 GENERATION 1.0, OKAY, OUT OF -- YOU KNOW, 1.000.
13 THERE IS GOING TO BE 1.00001. OKAY. WE ARE JUST
14 GETTING THIS THING STARTED.

15 IN 1965 YOUR CLIMATE SCIENCE WAS QUITE
16 INTRIGUING, WAS PRETTY CLOSE, BUT WE KNOW A LOT MORE.
17 FIVE YEARS FROM NOW WE'LL KNOW A LOT MORE ABOUT HOW
18 TO DO THIS. BUT IF WE'RE GOING TO STOP AND WAIT TO
19 TACKLE ALL THESE MITIGATION OPTIONS THAT THE IPCC HAS
20 SAID WE NEED TO DO THESE, IF WE'RE GOING TO WAIT FOR
21 THE PERFECT, WE WON'T GET STARTED. AND THE PERFECT
22 IS ABSOLUTELY THE ENEMY OF THE GOOD. THESE THINGS
23 ARE WIN-WIN. WE KNOW THEY CAN WORK. THEY CAN BE
24 QUANTIFIED. THEY CAN BE VERIFIED.

25 AND BY THE WAY, SO2 WASN'T AS SIMPLE AS YOU
0820

1 MAY THINK. BRUCE, 10,000 PAGES OF REGULATIONS, IF
2 I'M NOT MISTAKEN? SO SIMPLE ENVIRONMENT. MUCH MORE
3 COMPLICATED ENVIRONMENT. LOTS OF SOLUTIONS. ENGAGE
4 THE SOLUTIONS.

5 THE NUMERICS THAT WE RUN ON THE
6 LIEBERMAN/WARNER BILL SUGGEST TO US THAT AT ABOUT TEN

7 YEARS INTO THE PROGRAM, YOU'RE GOING TO NEED
8 SOMETHING LIKE A BILLION TONS OF OFFSETS TO MEET THE
9 GOAL. AND IF YOU ADD 100,000 TON PROJECTS, WHICH IS
10 FAIRLY SIZABLE, YOU WOULD NEED 10,000 OF THEM.

11 HAVING A REVIEW PANEL TO PUT THE PEOPLE ON
12 THE COUCH AND SAY WHAT WOULD YOU HAVE DONE OTHERWISE
13 AND LET'S GET INTO DEEP HYPNOSIS, THAT'S NOT GOING TO
14 WORK. YOU NEED TO SET SOME STANDARDS AND RUN WITH
15 THEM.

16 SO THANK YOU FOR THAT QUESTION. I THINK
17 I'M GETTING THE TIME-UP SIGNAL, AND I DON'T SEE ANY
18 OTHER TAKERS. I LOOK FORWARD TO DISCUSSING THESE OFF
19 LINE AT THE BREAK.

20 THANKS FOR THE CHANCE TO VISIT WITH YOU,
21 AND I HOPE THIS WAS A HELPFUL PRIMER.
22