```
MR. PALMER: THANK YOU VERY MUCH. IT IS A
13
    PLEASURE TO BE HERE.
14
                IT'S INTIMIDATING TO BE HERE IN FRONT OF
15
    ALL THIS INTELLECTUAL FIRE POWER, AND IT IS ALSO AN HONOR
16
    TO BE HERE. PART OF THE REASON THAT PEABODY IS
17
     CO-SPONSORING THIS EVENT IS BECAUSE OF ALL THE HARD
18
     WORK THAT YOU DO AND THE IMPORTANT WORK THAT YOU DO
19
     IN TERMS OF FOCUSING ON THE ENVIRONMENT AND FOCUSING
20
     ON EMISSIONS.
21
                BUT THERE IS ANOTHER SIDE TO THIS STORY.
22
    ONE REASON WE ARE HERE TODAY IS TO TALK TO YOU ABOUT
23
     ENERGY SUPPLY BECAUSE THE FOCAL POINT OF THE
24
     ENVIRONMENTAL DISCUSSIONS THAT ARE GOING ON
25
     INTERNATIONALLY AND, INDEED, IN OUR OWN COUNTRY FOCUS
0206
     ON EMISSIONS. BUT THE EMISSIONS COME FROM SOMEWHERE,
 1
     AND THE EMISSIONS ARE THERE FOR A REASON. THE
 3
    ACTIVITY THAT CREATES THE EMISSIONS
 4
    IS NORMAL PEOPLE LIVING THEIR
 5
    LIVES, WHETHER IT IS HERE IN HAWAII, WHETHER IT IS
 6
    ACROSS THE UNITED STATES, WHETHER IT IS OVERSEAS IN
 7
    THE DEVELOPING NATIONS. IT'S THE NATURAL EVOLUTION,
     THE INDUSTRIAL EVOLUTION OF THE HUMAN COMMUNITY THAT
 8
    IS CREATING THE EMISSIONS AND CREATING THE CONCERNS
 9
10
    OVER GLOBAL CLIMATE CHANGE, WHICH IS THE
11
    ENVIRONMENTAL ISSUE.
12
13
14
                SO I THOUGHT I WOULD BE PROVOCATIVE, AND
15
     GIVE YOU A SLIDE THAT SHOWS AN 80-FOOT WALL OF
16
     COAL IN WYOMING.
                PEABODY OWNS MORE CARBON THAN ANY COMPANY
17
     ON EARTH, MORE THAN EXXON MOBIL. I HAVE PERSONALLY
18
     BEEN INVOLVED IN THE COAL INDUSTRY SINCE 1980, FOR
19
20
     27 YEARS. I'M PROUD OF WHAT WE DO. I'M PROUD OF THE
     COAL INDUSTRY. I KNOW THE GOOD THAT USING
2.1
22
     COAL DOES FOR THE AMERICAN PEOPLE AND FOR THE WORLD
23
    COMMUNITY. BUT WE ALSO RECOGNIZE THE CONCERNS AND
24
    THE CONCERNS THAT YOU ALL HAVE, AND THAT'S WHY WE'RE
25
    HERE.
0207
                WE START OUT WITH THE VERY BASIC PREMISE,
 1
 2
     AND THAT IS ENERGY IS KEY TO ALL HUMAN ACTIVITY. IT
 3
     IS KEY TO OUR BEING HERE TODAY, KEY TO OUR GETTING
 4
    HERE. IT IS KEY TO THE WAY WE LIVE WHEN WE'RE AT
 5
           IT'S KEY TO THE GROWING WORLD COMMUNITY AND
 6
     THE ECONOMIC PHENOMENON THAT IS SOUTHEAST ASIA.
 7
                IT IS A SECOND INDUSTRIAL REVOLUTION.
 8
     THERE IS NO OTHER WAY TO DESCRIBE IT. I HAVE BEEN TO
 9
     CHINA ON A NUMBER OF OCCASIONS NOW. I WAS IN
10
    MONGOLIA FOUR WEEKS AGO.
11
    MONGOLIA HAS 3 MILLION
    PEOPLE. IT'S HALF THE SIZE OF THE UNITED STATES.
12
13
    HAS 120 BILLION TONS OF COAL, WHICH IS HALF THE
14
    RESERVES OF THE UNITED STATES. AND IT'S WITHIN
15
     CLOSE REACH OF MAJOR INDUSTRIAL AREAS IN CHINA.
16
                MONGOLIAN COAL IS GOING TO GET DEVELOPED. IT'S
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17
     GOING TO GET USED, AS SURELY AS YOU'RE SITTING HERE.
18
    MONGOLIA ALSO HAS URANIUM, COPPER, IRON ORE, GOLD,
19
     SILVER. THEY ARE ON THE CUSP OF A HUGE EXPLOSION IN
    MINERAL ACTIVITY IN MONGOLIA, THE 3 MILLION PEOPLE
20
    THERE, BECAUSE OF THE DEMAND COMING FROM SOUTHEAST
21
22
    ASIA. IT IS A REALITY.
2.3
                THIS IS FROM PIRA.
2.4
    THIS WAS LAST YEAR. THIS PROBABLY IS UNDERSTATED;
25
    NOT IN TERMS OF CHINA, BUT IN TERMS OF INDIA, WHICH
0208
1
     IS JUST GETTING UP AND COMING ON STRONG.
 2
                CHINA SURPASSED THE UNITED STATES THIS YEAR
 3
     AS THE LARGEST EMITTER OF GREENHOUSE GASSES. AND AS
     SURE AS YOU ARE SITTING IN THE ROOM, THEY WILL
 5
     CONTINUE TO GROW EMISSIONS. THE UTILITY EXECUTIVES, I MET
    LAST WEEK WITH A PARTNER OF OURS, HUANENG GROUP,
 6
 7
    TOLD ME
 8
    THAT CHINA WILL BE INSTALLING AS MUCH COAL CAPACITY
 9
    IN THE NEXT FOUR YEARS IN THE NORTHERN PART OF THE
10
    COUNTRY THAT EXISTS IN THE UNITED STATES TODAY.
11
    ANOTHER BILLION TONS OF CONSUMPTION PER YEAR IN CHINA
    WILL COME ON LINE BY 2010, 2011.
12
13
14
15
    I KNOW IF YOU WALK AROUND BEIJING, THE
    GROWTH IS INEXORABLE, IT IS IN FRONT OF YOU, YOU CAN
16
17
    TASTE IT, YOU CAN FEEL IT. THE T CRANE THERE IS THE
18
    NATIONAL BIRD IN BEIJING. THERE'S NO QUESTION ABOUT
19
20
                WHY DO WE USE COAL IN THE UNITED STATES?
21
    IT IS WHAT WE
22
    HAVE. IT'S 50 PERCENT OF OUR ELECTRICITY GENERATION,
23
    AND IT IS 85 PERCENT OF OUR FOSSIL FUEL BASE.
     ELECTRICITY IS THE MIRACLE OF THE 20TH CENTURY. ALL
25
     OF US DEPEND ON ELECTRICITY. IT IS THE COMMODITY
0209
     THAT DRIVES OUR LIVES, THAT DRIVES INDUSTRIAL
 1
 2
    CIVILIZATION. IT IS WHAT'S GOING ON IN SOUTHEAST
 3
    ASIA TODAY, ELECTRICITY, IT'S WHAT IT'S ABOUT.
 4
               WE USE COAL BECAUSE WE HAVE IT AND BECAUSE
 5
    OF WHERE IT IS LOCATED.
    WYOMING'S POWDER RIVER BASIN IN THE
 6
 7
    NORTHEASTERN PART OF THE STATE IS THE MOST PROLIFIC
 8
    COAL FIELD IN THE COUNTRY, 400 MILLION TONS OF COAL A
 9
    YEAR, WITH COAL MINES IN A RADIUS OF ABOUT 80 MILES
10
    AROUND THE COMMUNITY CALLED GILLETTE, WYOMING. THEY
11
    PRODUCE OVER A MILLION AND A HALF TONS OF COAL IN A
    DAY THAT IS CARRIED IN GO OUT OVER 100 MILES OF RAIL CARS PER DAY
12
    TO POWER PLANTS ALL OVER THE
13
14
     COUNTRY. PEABODY IS THE LARGEST PRODUCER IN THAT
15
    MARKET. THE ILLINOIS BASIN -- ILLINOIS, INDIANA,
    KENTUCKY -- HUGELY IMPORTANT. APPALACHIA IS IN
16
17
    DECLINE, BUT THE NORTHERN HALF, HUGELY IMPORTANT.
18
    YOU CAN SEE DOWN IN THE SOUTHEAST, IN THE SOUTH, IN
```

TEXAS, HUGE AMOUNTS OF LIGNITE. THAT COAL IS GOING

TO GET USED. YOU CAN ALSO SEE IT UP HERE IN THE ROCKY MOUNTAIN WEST, THERE ARE IMPORTANT COAL

19

20

21

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22
    DEPOSITS. THAT COAL IS GOING TO GET USED.
23
                WE'RE USING MORE COAL. IT IS
24
     CONTROVERSIAL. POWER PLANTS ARE PROPOSED; THEY'RE
25
    TURNED DOWN. POWER PLANTS ARE PROPOSED; THEY'RE
0210
1
    GOING FORWARD. LAST WEEK FIVE WENT FORWARD. TODAY
    THE STATE OF WASHINGTON TURNED DOWN ONE. KANSAS AND
 3
     OKLAHOMA TURNED THEM DOWN ABOUT THREE OR FOUR WEEKS
 4
    AGO. TEXAS UTILITIES IN TEXAS PULLED BACK FROM
 5
    BUILDING EIGHT, THEY'RE ONLY BUILDING THREE, BUT
 6
    THEY'RE GOING FORWARD. AND THE DEPARTMENT OF ENERGY
 7
    ESTIMATES, WITHIN THE NEXT SIX OR SEVEN YEARS, WE'LL
 8
    HAVE ANOTHER 100 MILLION TONS OF COAL PRODUCTION AND
 9
    CONSUMPTION IN THE UNITED STATES FROM NEW COAL
10
    PLANTS.
11
                THERE ARE OTHER WAYS TO USE COAL TO MEET
12
     OUR ENERGY NEEDS IN THE FUTURE. AND WHEN WE SAY THIS
     IN TERMS OF THE TOP LINE THERE, THAT CLEAN COAL
13
14
    TECHNOLOGIES ARE THE ONLY PATH FOR AFFORDABLE AND
15
    ADEQUATE ENERGY SUPPLY, WE DON'T SAY IT IN A
16
    POLLYANAA-ISH WAY. WE DON'T SAY IT IN A BOASTFUL
    WAY. WE DON'T SAY IT AS A SALESPERSON. WE SAY IT
17
18
     BECAUSE IT'S A REALITY.
               NOW, THAT'S NOT TO SAY THAT THERE AREN'T
19
2.0
     OTHER EXTREMELY IMPORTANT SOURCES OF ENERGY THAT WE
21
    NEED. NUCLEAR IS ONE, AND WE WILL HEAR ABOUT
22
    NUCLEAR. RENEWABLES ARE, AS WELL, SOLAR, WIND,
23
    ET CETERA, AND WE WILL HEAR ABOUT THAT.
24
               BUT THE MASSIVE SCALE OF ENERGY PRODUCTION
25
    AND CONSUMPTION IN THE UNITED STATES
0211
1
 2
    AT A LEVEL THAT AS WE GROW, AS WE GO AND WE GROW, AND
 3
 4
    PARTICULARLY IN A PEAK OIL WORLD, AND PARTICULARLY
    BECAUSE OF THE SECURITY ISSUES SURROUNDING IMPORTED
 5
    OIL, AND NOT JUST OIL BUT LIQUEFIED NATURAL GAS.
 6
 7
 8
 9
10
                I KNOW FOR A FACT THAT WE HAVE TO USE MORE
    COAL. AND WE CAN USE IT CLEANLY, AND WE CAN USE IT
11
     IN A CARBON-FREE WAY. IF YOU LOOK AT OUR BOOTH OUT
12
     THERE, YOU'LL SEE THE STATEMENT: "WE ARE WELL ON THE
13
14
     PATH TO ZERO EMISSIONS." AND THAT'S OUR GOAL. IT'S
15
    CALLED CARBON CAPTURE AND SEQUESTRATION. THIS IS HOW
16
    WE SEE A POLICY FRAMEWORK DEVELOPING. WE NEED THE
    NEW COAL PLANTS NOW THAT ARE BEING BUILT. THEY'RE
17
     STATE-OF-THE-ART, ULTRA-SUPERCRITICAL, AND INTEGRATED
18
19
     GASIFICATION COMBINE CYCLE UNITS, WITH LOWER CO2
20
    EMISSIONS, BUT NO CARBON CAPTURE AND SEQUESTRATION.
21
    IT'S NOT PROVED OUT YET.
22
               FUTUREGEN, AEP IS IN THE ALLIANCE WITH US
    AND WILL TALK ABOUT IT IN A SECOND. THAT GOES
23
    OPERATIONAL IN 2012, ZERO-EMISSION COAL PLANT UNDER AN
25
     INITIATIVE OF PRESIDENT BUSH AND THE ALLIANCE IS IN
0212
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PARTNERSHIP WITH THE UNITED STATES. THAT GETS BUILT.
    RETROFITTING THE EXISTING COAL BASE STARTING IN
 3
     2020 OR SOME TIME THEREAFTER.
               HERE IS FUTUREGEN WITH A LIST OF PARTICIPATING COMPANIES.
 5
    THERE ARE 12 OF US. YOU WILL SEE CHINA HUANENG
 6
    GROUP. CHINA HUANENG GROUP IS THE LARGEST COAL USER
 8
    CHINA IS ON THE TECHNOLOGY PATH, AS
9
    WE ARE. AND YOU'LL SEE THE OTHER COAL PRODUCERS AND
10
    UTILITIES REPRESENTED THERE.
11
               FUTUREGEN, IT'S OUR PROMISE. WE HAVE A
12
    HUGE AMOUNT OF CAPACITY TO SEQUESTER CARBON IN THE
13
    UNITED STATES, 3.5 TRILLION TONS ACCORDING TO DOE, A
14
    THOUSAND YEARS. FUTUREGEN WILL SHOW THAT WE CAN DO
15
    IT SAFELY SO WE HAVE ZERO-EMISSION COAL PLANTS, WE
    HAVE THE BROADER USE OF COAL, BUT MORE IMPORTANTLY WE
16
17
    HAVE ENERGY SO THAT THIS CONTINUES, THESE METRICS
18
    CONTINUE.
19
                IN THE ENVIRONMENTAL DEBATE, WE ARGUE OVER
20
    NEGATIVE EXTERNALITIES. WE TEND TO IGNORE THE
21
    POSITIVES.
               GREATER COAL USE HAS MEANT MORE PEOPLE
22
23
    LIVING BETTER AND LIVING LONGER IN THE UNITED STATES
    BECAUSE GREATER COAL USE IS CORRELATED WITH
2.5
    ELECTRICITY IN THE UNITED STATES. THE NATIONAL
0213
1
    ACADEMY OF ENGINEERING IN 2000 RECOGNIZED ELECTRICITY
 2
    AS THE GREATEST ENGINEERING ACHIEVEMENT OF THE
 3
     20TH CENTURY. COAL AND ELECTRICITY IN THE UNITED
     STATES ARE LINKED. ABUNDANT, AFFORDABLE,
 4
 5
    ALWAYS-AVAILABLE ELECTRICITY IS ESSENTIAL FOR OUR
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LIVES. WE NEED TO USE IT CLEANLY, AND WE WILL.

MY COLLEAGUE, BRUCE.

THANK YOU.

6

7

8