

; 12/08/17 4:01 PM
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>> GOOD AFTERNOON.
MY NAME IS MATT O'MALLEY.
THIS IS ON THE ENVIRONMENT AND
SUS STAIN ABILITY FOR DOCKET
0162 TO IS CONSIDER THE BEEN
FITS OF NET ZERO CARBON
REQUIREMENTS FOR FUTURE
CONSTRUCTION IN THE CITY OF
BOSTON.
I WANT TO THANKS THE ADVOCATES
OF THIS ISSUE.
INCLUDING:
TODAY IS THE FIRST TIME WE HAVE
INTRODUCED THE IDEA OF NET ZERO
CARBON TO THE BOSTON CITY
COUNCIL.
IT WON'T BE THE LAST.
BOSTON CAN REACH NET ZERO CARBON
WITH OFF SET RETPHOUBL ENERGY
PRODUCTION.
MAYOR WALSH HAS ADMIRABLE LEAH
GREED TO -- BY 2050.
THIS IS PART OF THE GREEN
PREUPBLT OF GETTING THERE.
WE TALK ABOUT BLUE PRINTS.
I WANT TO HAVE GREEN PRINTS.
ON JUNE 15th I WAS WITH MANY
PEOPLE AS WE FACILITATED THE
JAMAICA PLANES FORUM.
IT WAS A INCREDIBLY ILLUMINATING
CONVERSATION HELPING PREPARE ME
THE POSSIBILITIES AND WHAT THEY
COULD BE.
SEQUENTIALLY ON AUGUST 2nd I
FOILED THIS ORDER FOR NET ZERO
CARBON ACHIEVEMENT.
A COUPLE OF ITEMS BEFORE WE GET
OUR NO OUR PANELS.
I WANT TO LOOK INTO OPENING
REMARKS.
COUNCIL PRESIDENT, DEAR FRIEND
ON THIS.
MICHELE WU.
I WANT TO AD KNOWLEDGE A
COUNSELOR ELECT WHO WAS WITH US,
SITTING THERE FOR NOW.
FLEE WEEKS SHE WILL BE DOWN
HERE.
WE DON'T DO APPLAUSE TYPICALLY
BUT WE ARE LIGHTED TO YOU HAVE,

COUNSELOR.

WE LOOK FORWARD TO WORKING WITH YOU ON THIS.

>> BRIEFLY BUILDINGS CONTRIBUTE TO OVER HALF OF GREEN HOUSE EMISSIONS IN OUR CITY.

WE MUST LEAD IN COMING UP WITH INNOVATIVE AND SUSTAINABLE SOLUTIONS.

TPHO +*U MORE THAN EVER THERE IS IS LEADERSHIP IN WASHINGTON DC AND IT'S UP TO CITIES AND TOWNS FIGHT CLIMATE CHANGE.

WE HAVE SEEN SOME CITIES LEADING IN THIS SPACE ACROSS THE RIVER IN MASSACHUSETTS, EL PASO AND OTHER PARTS OF CALIFORNIA HAVE NET ZERO STRATEGIC PLANS.

AS WE MOVE FORWARD IN THE COULD BE STRUBGS OF NEW BUILDINGS WE SHOULD CONSIDER THE AFFORD ABILITY AND THE CARBON FOOT PRINT OF THE W-LGZ.

FOR EVERY ENVIRONMENTAL ISSUE WE WORK ON I REITERATE THE SOLUTIONS ARE NOT JUST GOOD FOR THE ENVIRONMENT BUT THE TAXPAYER AND RATE PARAS WELL.

I DON'T WANT TO BE LABOR THE POINT.

WE -- WE HAVE A LOT TO GET THROUGH.

LET'S DO JAZZ HANDS FOR APPLAUSE, PLEASE.

WE HAVE SEEN IT IN BOSTON WITH THE CASTLE SQUARE APARTMENTS BEING A MODEL FOR ENERGY EFFICIENT BUILDINGS.

>> NEARLY A QUARTER OF A MILLION DOLLARS ANNUALLY FOR SAVINGS AFTER AN UP GRATE.

WE WILL HEAR FROM EXPERTS AND WE INVITE EVERYONE TO TESTIFY TO TALK TO THAT POINT AS WELL.

>> AS IT RELATES TO BUILDINGS WE HAVE A OPPORTUNITY HERE.

>> THESE TWO GENTLEMEN I KNOW ARE COMMITTED TO THE CAUSE AS WELL WILL TALK ABOUT THE GREAT WORK AND STRATEGY HAPPENING NOW. WE A LEAD THAT AND ARE GRATEFUL FOR.

THAT I WOULD SIMPLY SAY WE DON'T HAVE THE LUCKSLY OF TIME TO WAIT

ON MANY ISSUES.
IMPLEMENTING PLANS THAT MAKE
SENSE AND ARE BENEFICIAL ARE
WHAT WE NEED TO FOCUS ON.
THAT WILL SPUR US.
THE LAST COUNCIL MEETING OF THE
YEAR IS THIS WEDNESDAY.
I KNOW THE NEW COUNCIL WILL
CONTINUE THIS CONVERSATION AND
HELP GET TO A SOLUTION TO HAVE A
IMPACT SAOBER RATHER THAN LATER.
>> LOSING FORWARD TO BRIEF HOUSE
KEEPING ITEMS.
THIS IS TAPED, STREAMED AND ON
LOCAL CABLE THERE.
ARE THREE SIGN IN SHEETS.
WE WILL STAY AS LONG AS IT TAKES
FOR EVERYONE TO TESTIFY.
THERE WILL BE THE MAYORAL
ADMINISTRATION FIRST, FOLLOWED
BY EXPERTS AND THEN ADVOCATES
BEFORE PUBLIC TESTIMONY.
HAVING SAID THAT BEFORE GETTING
TO YOU GENTLEMEN, ANY THOUGHTS?
>> THANK YOU FOR YOUR LEADERSHIP
ON THIS AND OTHER ISSUES WE'RE
THRILLED THAT BOSTON IS TAKING
ACTION ON AND FOCUS IN THIS
ROOM.
>> I WANT TO APOLOGIZE.
I HAVE TO POP IN AND OUT.
>> THIS IS IMPORTANCE TO TALK
ABOUT RESIP KWREPT SEE AND ADAM
STATION.
WE CAN'T DEPEND ON WAITING FOR
EVERY NEW DISASTER OR THE IMPACT
OF KHRAOEU NAT CHANGE TO COME TO
DEAL WITH IT.
>> WE HAVE TO REDUCE AND MIT
GATE AND PRESENT WHAT IS
HAPPENING TODAY.
>> IS WE ARE IN A SITUATION WE
ARE IN NOW AS A PLANET BECAUSE
OUR CURRENT ECONOMIST SEPL LOCKS
IN INCENTIVES FOR PEOPLE NOT TO
TAKE THE MOST SUSTAINABLE
ACTION.
WE HAVE TO CHANGE THINGS IT AND
THAT TO SHAPE PARAMETERS.
THEN WE GET TO THE DOUBLE TRIPLE
BOTTOM LINE.
WE HAVE TO TAKE ACTIONS AND
COULD THE PHI THE RULES INTO THE
LAW.

THANK YOU.
>> THANK YOU, MADAM PRESIDENT.
+*EUFRLPBLGTS WE HAVE BEEN JOINED
BY COUNSELOR McCARTHY.
ANY REMARKS.
>> I AGREE WITH MICHELE.
I AGREE WITH MATT'S OPENING
STATEMENT.
WHEN YOU SEE THIS HERE, IT'S
ABOUT WHERE CASS WILL BE IN 20
YEARS.
IT'S SCARY.
MY GUYS ARE 20 AND 18 THEY'RE
AHEAD OF THE CURVE.
CASS AND BLAZE ARE 3 AND A BABY.
IT'S IMPORTANT TO GET THIS OUT
OF THE GATE.
THAT'S HOW I FEEL ABOUT IT.
I CAUGHT MATT THE GREEN GUY AND
I WILL BE HERE FOR YOU.
>> THANK YOU, COUNSELOR
McCARTHY.
>> THERE IS A LETTER FROM
COUNSELOR ZAKIM.
I'M UNABLE TO ATTEND TODAY'S
HEARING.
I REGRET I'M UNABLE.
TO THANK YOU FOR TAKING SUCH A
IMPORTANT CONCERN.
I SHARE YOUR CONCERNS.
I SUPPORT TO MOVING THE CITY OF
BOSTON TO CARBON NEUTRALITY.
>> WE HAVE BEEN JOINED BY TWO
MORE -- COUNSELOR BAKER.
AT LARGE COUNSELOR
ESSAIBI-GEORGE.
WELCOME.
HATE TO PUT YOU ONLY THE SPOT
ANY OPENING THOUGHTS.
THANK YOU.
>> FINALLY I SAW HENRY ET A
DAVIS.
FORMER MAYOR OF CAMBRIDGE.
THANK YOU FOR JOINING US.
>> WELCOME AND THANK YOU.
WHO EVER WANTS TO START
INTRODUCE YOURSELF AND WE HAVE A
SLIDE PRESENTATION AS WELL.
>> THANK YOU.
THANK YOU FOR THE OPPORTUNITY TO
BE HERE TODAY TO TESTIFY KONGER
CONCERNING DOCKET.
THE CITY OF BOSTON CREATED A
FIRST CLIMATE ACTION PLAN IN

23007.

WE HAVE UPDATE IT DID TWICE
SINCE THEN.

REDUCING CARBONS IS AN ESSENTIAL
PART OF OUR GREEN HOUSE GAS
RESTRUBGS STRATEGY FROM THE
START.

THAT IS WHY WE HAVE SUCH
POLICIES AND PROGRAMS IN PLACE
NOW AS OUR GREEN BUILDING ZONING
REQUIREMENTS.

MY COLLEAGUE FROM THE BPBA WILL
DISCUSS.

NEW BOSTON.

AND BUILDING ENERGY REPORTING
AND DISCLOSER ORDINANCE.

>> ALTHOUGH WE HAVE BEEN FOCUSED
ON THE GREEN HOUSE GAS REDUCTION
BY 2020.

MAYOR WALSH RELEASE AID LAB
THREE YEARS AGO AND WE STARTED
TO EX ANNE AM MEASURES FOR TO
50.

THAT WAS AN 80% REDUCTION WHEN
THE PLAN WAS RELEASED.

THE MAYOR HAS SWEUPBS RACED OUR
SITES TO CARBON NEUTRALITY.

>> THE CURRENT PLAN IS PILOTING
NET ZERO BUILDINGS.

EVALUATING PERFORMANCE BASED
STAND STANDARDS AND EXPLORING
ZERO CARBON STANDARDS.

>> SEVERAL WEEKS AGO CARBON
TPRAOEPB BOSTON WAS LAUNCHED.

>> THE INITIALING PHRASE OF
CARBON FREE BOSTON IS ANALYZING
THE BENEFITS AND COSTS OF
POLICIES AND PROGRAMS
INDIVIDUALLY AND COLLECTIVELY
THAT WILL ENABLE BOSTON TO REACH
CARBON NOW TRALT GOALS.

SINCE BUILDINGS A COUNT FOR
THREE-FOURTHS OF THE EMISSIONS.
VARIOUS APPROACHES TO REDUCING
BUILDING EMISSION S-D A
IMPORTANT PART OF THE ON GOING
ANALYSIS.

WE EXPECT THIS TO BE COMPLETED
NEXT SUMMER.

T-B ONE OF THE BASES FOR THE
THIRD UPDATE OF THE CLIMATE
ACTION PLAN.

WE ARE LEARNING FROM THE
EXPERIENCE OF OTHER CITIES BOTH

NEAR AND FAR.

FOR EXAMPLE, BOSTON IS A MEMBER OF C40 A INTERNATIONAL NETWORK OF CITIES WORKING ON CLIMATE CHANGE.

MAYOR WALSH IS A MEMBER OF THE COMMITTEE.

IN PARALLEL OF A CARBON FREE BOSTON WORK, BOSTON IS ONE OF 25 CITIES AROUND THE WORLD PARTICIPATING TO THE CLIMATE ACTION PLANS COMPLIANT WITH THE 2016 PARIS ACCORDS.

THIS MEANS CARBON NOW TRALT.

>> THANK YOU FOR THE OPPORTUNITY TO BE HERE TODAY.

I'M HAPPY TO ANSWER ANY QUESTIONS AFTER JOHN TALKS ABOUT WHAT HIS GROUP IS DOING.

>> THANK YOU, CARL.

>> JOHN.

>> THANK YOU, COUNSELOR OWE MALLY.

I'M -- - WITH THE BOSTON PLANNING AND DEVELOPMENT AGENCY. WORKING IN PARTNERSHIP WITH OUR SISTER AGENCIES ESPECIALLY CARL AND THE OFFICE OF ENERGY, ENVIRONMENT AND OPEN SPACE TO REDUCE WORST ON GREEN HOUSE GAS EMISSIONS.

OUR APPROACH TO SUSTAIN ABILITY IS HOLISTIC.

>> FOR TODAY WE WILL FOCUS ON ZONING ARTICLE 37.

>> THE BUILDING PROGRAM.

ALL THEE INITIATIVES ARE, HAVE DIRECT BEARING ON BOSTON'S CARBON FOOT PRINT AND MEETING MAYOR WALSH EASE GOAL FOR 2050.

>> ENACTING JANUARY 2017 ON THE RECOMMENDATIONS OF THE MAYOR'S GREEN BUILDING TASK FORCE THIS. MADE WORST ON THE FIRST TO REQUIRE PRIVATE DEVELOPERS TO BUILD GREEN.

>> LEADERSHIP AND ENERGIEN AND ENVIRONMENTAL DESIGN.

>> THE REGULATIONS ARE APPLICABLE TO THOSE OVER 50,000 SQUARE FEET.

REQUIRING LEAD CERTIFIABLE OR BETTER.

TODAY BOSTON IS HOME TO OVER 320

LEAD PROJECTS AND BUILDINGS.
MASSACHUSETTS IS RANKED 15th IN
THE NATION FOR THE MOST GREEN
BUILDINGS.
IN 2016 ADDED THE MOST LEAD
SQUARE FEET OF BUILDINGS
NATIONALLY.
THESE ARE ON PAPER CAPITA BASIS.
I.
>> OUR GOAL IS TO TRANSFORM
PRACTICE.
BEEN FITTING THE IMPACT.
THE MARKETS OF THE LEAD BUILDING
RATING SYSTEMS ALLOW US TO DO
THAT.
OUR PRACTICES ARE EMULATED FROM
MAJOR CITIES ACROSS THE COUNTRY,
COAST TO COAST.
OUR SLY MAT RESILIENCY CHECKLIST
WAS JUST UPDATED.
REQUIRING ASSESSMENT AND MORE
DUE TO CLOY MAT CHANGE.
>> BOSTON REPORT THAT CARL HAS
MENTIONED.
THE UPDATE REFLECTS THE MAYOR'S
CARBON NEUTRALITY GOAL WITH
SPECIAL TARGETS OF CARBON
EMISSIONS, EXTREME
PRECIPITATION, HEAT AND SEA
LEVEL RISE.
THE RESILIENCY CHECKLIST LIFT IS
APPLICABLE TO ALL NEW PROJECTS
OVER 50,000 SQUARE FEET.
>> ASSESS THE DESIGNED
PERFORMANCE OF THE PROPOSED
PROJECT.
INCLUDING MEASURES TO REDUCE AND
MITIGATE.
>> STAT GEES AS NEEDED TO MEET
OR EXCEED THE NET ZERO CARBON
PERFORMANCE GOALS.
IT'S A TWO FACED LOOK.
WHAT TO DO NOW AND WHAT CAN YOU
DO AND NEED TO DO IN THE
PRACTICE.
I'M SORRY I FORGOT TO ADVANCE
THE SLIDES.
GO AHEAD MAYBE TWO.
ONE MORE.
PERFECT.
THE LAST PROGRAM WE WANT TO
MENTION IS THE E PLUS GREEN
BUILDING PROGRAM.
THAT'S E PLUS IN ENERGY

POSITIVE.

IT WAS LAUNCHED IN 2011 WITH THE PURPOSE OF DEMONSTRATING THE FEASIBILITY OF NET POSITIVE ENERGY.

DEEP GREEN HOMES IN BOSTON. THE FIRST PHASE OFFERED THREE PARCELS FOR HOUSING REDEVELOPMENT IN A DESIGN COMPETITION.

THE RP CHALLENGE LEADING ALL TO WORK TOGETHER TO CONSTRUCT NEW HOMES THAT USE VERY LITTLE ENERGY ABOUT THE THIRD OF ALLOWED, A THIRD OF THE ENERGY ALLOWED BY CODE.

TO EXCEED THAT LOAD WITH ON-SITE RENEWABLE ENERGY.

THE HOMES BE DEEP GREEN EXCEEDING THE REQUIREMENTS. THE LAST OF THESE FIRST PHASE PROJECTS WAS JUST COMPLETED. IN FACT THERE ARE THROW UNITS AVAILABLE NOW.

WE HAVE THREE YEARS OF DATA FROM THE FIRST FOUR UNITS.

>> THAT'S THE FIRST COMPLETED BUILDING IN THE NEIGHBOR HOOD. ONE MORE, PLEASE. OEFRPBLG.

>> WE HAVE THREE YEARS OF DATA ON THE PERFORMANCE OF THE HOMES. YOU SEE THEY'RE EX SIDING OUR GOALS AND SURPLUSSING ENOUGH RENEWABLE ENERGY TO POW ERRAND OKAY COMPLIANT HOME.

THESE HOMES ARE NET POSITIVE BY A GOOD MEASURE.

THE E PLUS GREEN BUILDING PROGRAM HAS BEEN EXPANDEDD WITH THE OFFERING OF TWO LARGER CITY PAR SELLS YIELDING 80 UNITS. THE COMPOSITION OF THE E PLUS SITE IS NOW OPEN.

THERE ARE TEAMS STARTING TO WORK NOT THE NEXT PHASE OF THE INITIATIVE.

ADDITIONALLY E PLUS PROGRAM HAS BEEN REPLICATED BY PRIVATE HOUSING DEVELOPERS PROPOSING AND DEVELOPING PROJECTS.

BY ARTIST OF HUMAN EUGS WITH AN E PLUS EXPANSION OF THEIR EXISTING BUILDING UNDER

CONSTRUCTION NOW.
IT MAYBE THE MOST ENERGY
COMPLIANT BUILDING ON THE AERBGS
COAST WHEN COMPLETED.
AT THE SMALL RESIDENTIAL
SCHEDULE WE SEE THESE BUILDINGS
FEASIBLE WITH.
NORMALIZATION OF THE PRACTICES
HIGHLY FEASIBLE.
WE EXPECT TO SEE THE SAME WITH
SMALL COMMERCIAL SCALE
BUILDINGS.
IN TIME ONE CAN IMAGINE NET ZERO
NEIGHBORHOODS BUILDING AND
REDUCING OUR CITY WIDE CARBON
EMISSIONS.
OUR SUCCESS IS DEPENDENT ON
PARTNERS.
MANY WHO ARE HERE.
THEY'RE BUILDING THE NEXT
GENERATIONS OF BUILDINGS NOW.
THANK YOU AGAIN FOR YOUR
LEADERSHIP AND THE OPPORTUNITY
TO SHARE OUR PRACTICES HERE.
I'M HAPPY TO ANSWER ANY
QUESTIONS.
>> THANK YOU, BOTH.
I HAVE SEVERAL QUESTIONS FIRST
WITH THE PREFACED I THINK IT'S
SAFE TO SAY ERIN IN THIS ROOM,
MAYOR WALSH INCLUDED WANTS THE
SAME GOALS.
WE RECOGNIZE THE URGENCY AND
THERE ARE TOOLS TO ADDRESS THIS
ISSUE.
I'M DELIGHTED AND FAMILIAR WITH
MOST BUT NOT ALL.
>> JOHN, SOME OF THE PROGRAMS.
I ARGUE MORE SHOULD BE INCLUDED
IN THE CONVERSATION AS WELL.
THERE ARE A LOST THEM.
IS IS IT ONE OF YOU OR SOMEONE
ELSE OVERSEEING THE DIFFERENT
WORKING GROUPS AND SORT OF
PROCESSES PUT IN PLACE TO
ADDRESS THIS?
WE ARE WORKING CLOSELY WITH
COLLEAGUES AND PUBLIC FACILITIES
DEPARTMENT AND BPS ON THE
BUILDING PLANS.
YOU KNOW BOTH IN TERMS OF
TALKING WITH THEM ABOUT NEW
BUILDINGS AND HOW ARE WE
ADDRESSING THE EXISTING

BUILDINGS IN THE CITY.
WE HAVE PROGRAMS IN PLACE.
>> INTRODUCES OUR FIRST ENERGY CONTRACT.
>> THE ENVIRONMENT DEPARTMENT WORKS CLOSELY WITH THE DEPARTMENT THAT'S HAVE DIRECT OVERSIGHT OF THE EFFICIENCY AND ENERGY USE IN THE BUILDINGS.
>> THERE IS A LOT GOING ON COORDINATED THROUGH THE AGENCIES WITH THE ENVIRONMENT DEPARTMENT.
>> JOHN, I DON'T KNOW IF YOU PAR ADVERTISE PACE SKEFRBGING AS A FACILITATOR AND ADVISER.
>> YES, NO QUESTION ON. THAT TODAY WE'RE SPEAKING MORE SPECIFICALLY ON BUILDINGS AND DEVELOPMENTS.
OTHERS TALK ABOUT HEALTH AND TRANSPORTATION AND OTHER THINGS DO.
WE HAVE SORT OF A SINGLE POINT PERSON TO OVERSEE THAT?
>> IS THERE A STRATEGIC PLAN WHERE THEY CONVENE MONTHLY TO KEEP IN SEUFRPG WITH EACH AOEUFRPBLGTS NOT THE FORMAL WAY.
>> SHOULD THERE BE?
>> IT'S SOMETHING TO THINK ABOUT.
FOR THE ENERGY EFFICIENCY OF EXISTING BUILDINGS WE DO HAVE SUCH A COMMITTEE FOR.
THAT.
>> THERE IS A STANDING DEPARTMENT, THEY MEET REGULARLY TO COORDINATE WORK.
WITH EXISTING BUILDINGS.
PERHAPS WE SHOULD HAVE A STANDING COMMITTEE --
>> THAT'S GOOD TO HEAR.
I'M NOT LOOKING TO MAKE MORE WORK FOR SOMEONE.
MAYBE I AM.
WORKING WITH THE FOLKS OF THE EXISTING BUILDINGS WHAT TO DO AND THE INCENTIVES AND DEVELOPMENT DOWN THE PIPELINE.
RECOGNIZING ISLARGER SCALE AND SO ON.
AS WE TALK ABOUT A STRATEGIC PLAN.
PERHAPS I WOULD LIKE THAT WITH

THIS HEARING AND SUBSEQUENT
HEARINGS NEXT YEAR HELP
FACILITATE.

IF IT'S YOU OR EITHER OF YOU TO
HELP MAKE SURE SOMEONE THAT THE
GROUPS WORKING TOWARDS THE SAME
GOAL ARE ON THE SAME PAGE.

>> SECONDLY.

IT'S INVOLVED IN THIS HEARING.
OBSVIOUSLY AS WE TALK ABOUT, YOU
KNOW NEW GAS INFRASTRUCTURE.
I HAVE BEEN OPPOSED TO THE BACK
BAY PIPELINE.

MY CONCERN IS SO MUCH
INFRASTRUCTURE IS BEING BUILT
FOR NATURAL GAS IT WILL BE HARD
TO REACH CARBON NEUTRAL BY 2050.
CAN YOU SPEAK OB THAT?

>> WE HAVE TALKED ABOUT THIS
TOO.

>> AS JOHN MENTIONED IN HIS
RARBGZ.

THE NEW CHECKLIST REQUIRES NEW
BUILDINGS TO SHOW HOW THEY WILL
REACH CARBON NEUTRALITY.

>> HOW ARE THEY THINK AGO HEAD.
JOHN, WANT TO TALK ABOUT THAT?

>> YES.

TWO THINGS.

COUNSELOR, IT'S WORTH NOTE THAGT
CITY OPERATES WITH A LEAD BY
EXAMPLE STANDARD FOR CITY
BUILDINGS AND THE PROJECTS THAT
THE CITY HAS FINANCING OR LAND.
THOSE PROJECTS ARE REQUIRED TO
RECEIVE LEAD SILVER.

FOR CITY BUILDINGS THEY HAVE TO
BE LEAD SILVER OR GETTER
CERTIFIED.

>> LEAD CERTIFIED INCLUDES
NATURAL GAS, CORRECT?

>> IT DOES.

>> LEAD IS HOLISTIC WITH SITE
AND LOCATION, OTHER PEN FITS
THAT HAVE SIGNIFICANT CARBON
FOOT PRINTS TO THEM.

A BETTER POINT IS LOOK AT OUR E
PLUS GREEN BUILDINGS.

AT THIS ELECTION OF PRACTICE WE
ARE BUILDING ALL ELECTRIC
BUILDINGS.

NO COMBUSTION IN THE BUILDINGS
OR GAS SERVICE OR COST OF GAS
CONNECTIONS.

WE SEE IT AS A PRACTICE OF THE
FUTURE.
BEING LESS AND LESS RELIANT FOR
GAS ON HAOETING AND OTHER
SOURCES.

>> WE BELIEVE THAT PRACTICE IS
VERY FEASIBLE AT THIS POINT.
YOU DON'T NEED TO BRING GAS NO
HOMES TO BE EFFICIENT AND SAFE.

>> WITH THE GREEN LIGHT,
FEDERAL, NOT YOU GUYS.
THE DEVELOPMENT OF MORE NATURAL
GAS INFRA STRUCTURE WE'RE SETH
OURSELVES UP FOR FAILURE, WE AS
A SOCIETY.

IT'S GREAT TO BRING IN
INCENTIVES.

I DO HAVE CONCERN ON TELLING A
MAJOR DEVELOPMENT YOU CAN'T RELY
ON GAS WITH THE TENS OF MILLIONS
IF NOT BILLIONS OF DOLLARS
TALKING NATIONALLY ON THIS.

>> YOUR POINT IS WELL TAKEN.
THAT'S A QUESTION WE'RE
ADDRESSING IN OUR CARBON FREE
BOSTON PROJECT.

THE POINT IS TO ANALYZE THOSE
PROGRAMS AND POLICIES WE NEED TO
PUT IN PLACE TO REACH THE CARBON
NEUTRALITY GOAL.

>> HOW DO WE DO THAT
PRACTICALLY.

HOW TO STRUCTURE THE GONE
ANSWERRIZATION.

>> TO THAT END, THANK YOU, CARL.
I THINK IT'S WORTH WHILE
REVIEWING THE REQUIREMENTS THAT
MAKE SOMETHING LEAD CERTIFIED.
PLATINUM OR OTHERWISE 206789
YEARS AGO HAVING A LOW FLOW
TOILET MEANT MORE THAN WHAT IT
MEANS NOW.

I WOULD SAY WE HAVE A
OPPORTUNITY TO STRENGTHEN THE
REQUIREMENTS TO BE LEAD
CERTIFIED AND WHAT IT MEANS TO
BE LEAD CERTIFIED IN TERMS OF
GETTING TO OUR GOAL BY 2050.
WHERE ARE WE FOR 20201234.

>> WE ARE, WE EXPECT TO RELEASE
OUR INVENTORY FOR 2015, THE LAST
YEAR OF COMPLETE DATA IN THE
NEXT FEW WEEKS.

WE ARE DOWN

IT'S -- TO GET TO HER 2020 GOAL
IT WILL TAKE HARD WORK.

>> IT'S COME UP A BIT FROM THE
GOOD WEATHER AND FALLING GAS
PRICES DRIVING THE COAL AND OIL
OUT OF OUR ENERGY SYSTEM.
WE HAD A BIG REDUCTION SYSTEM
THERE.

THAT'S WHERE WE ARE NOW.
THE DETAILS OF THE INVENTORY
SHOULD BE OUT THE NEXT FEW
WEEKS.

>> I WOULD HAZARD A GUESS
EVERYONE IN THE ROOM IS
DEDICATED TO WORKING WITH YOU
AND ALL OF TO US MAKE SURE TO
MEET AND EXCEED THAT GOAL.
TWO QUICK ANNOUNCEMENTS.
COUNSELOR PRESSLEY, THANK YOU
FOR JOINING US.
I THINK IT'S INDICATIVE SO MANY
COUNSELORS ARE HERE.
AND COUNSELOR ELECT ED FLYNN.
THANK YOU FOR BEING HERE AS
WELL.

>> I APPRECIATE YOU REACHING OUT
TO ME ON THIS ISSUE.
WE'RE GRATEFUL YOU ARE HERE AS
WELL.

COUNSELOR McCARTHY, QUESTIONS?

>> QUICKLY, MATT.

HOW IS OUR POLICIES NOW
AFFECTING THE FIVE BILLION IN
THE PIPELINE?

WE TALK ABOUT 2030 NOT 2050.
ANY EXPLANATION OF WHAT IS
HAPPENING NOW?

>> I WILL SPEAK TO THE KEY
PROJECTS.

>> OUR REVIEW HAS PROMPTED A
NUMBER OF CHANGES RIGHT BEFORE
OUR AS IN THE INDUSTRY.
I WILL POINT TO A PARTICULAR
NUANCE.

BUILDING ENERGY MODELING.
THIS IS HOW BUILDINGS SHARE
COMPLIANCE.

WE REQUIRE BUILDING ENERGY
MODELS.

EARLY.

WE DO TO TH +* TO UNDERSTAND HOW
THE PROPOSED PROJECT PERFORMS.
WE KNOW YOU BEGIN MEASURING
BUILDING PERFORMANCE UP FRONT

YOU MAKE BETTER DECISIONS EARLY ON.
THIS IS A NEW PROJECT.
WE HAVEN'T SEEN THIS PRO BUST ENGAGEMENT YET.
THAT WILL COME IN THE NEXT YEAR OR.
TWO SO THAT'S ONE DIRECTION WAY OF HOW WE ARE AFFECTING PRACTICE AROUND ENERGY PERFORMANCE.
ANOTHER IS CLIMATE CHANGE CHECKLIST LIFT UPDATE.
ASKING PROJECTS HOW CLOSE CAN THEY GET AND WHAT CAN THEY DO IN THE FUTURE TO IMPROVE THE BUILDING PERFORMANCE.
>> IS AS YOU CAN IMAGINE WE HAVE A NATIONAL INDUSTRY AND PRACTICE.
THESE BUILDINGS ARE VERY HARD TO TEACH TO BE BETTER BUILDINGS.
I THINK WE WILL START TO SEE MORE DRAMATIC CHANGES IN OUR LARGE COMMERCIAL BUILDING CLASS.
AS FAR AS BUILDING ENVELOPE STRATEGIES SUPPORTING MORE EFFICIENT BUILDINGS AND DRIVING DOWN THE COST OF HEATING AND COOLING THE BUILDINGS.
>> THANK YOU, I KNOW JOHN WALKS THE WALK WITH HIS BIKE.
I KNOW YOU'RE PART OF THE GOOD SIDE.
>> INDEED.
COUNSELOR ESSAIBI-GEORGE.
>> I DON'T HAVE A QUESTION.
I FIND THE HEARING AND THE INFORMATION FASCINATING.
THANK YOU.
>> COUNSELOR BAKER.
>> GOOD MORNING, GENTLEMEN.
CAN YOU EXPLAIN TO ME LIKE THE NEW BUILDINGS GOING UP WHAT YOU LOOK AT HERE.
HOW DIFFICULT IS IT FOR THEM TO BE LEAD CERTIFIED?
USING NEWER PRODUCTS AVAILABLE NOW.
HOW CLOSE WOULD YOU GET TO BEING LEAD CERTIFIED ON ANY BUILDING WE SEE GOING ON?
>> SURE.
IT'S WORTH NOTING THE SUITE OF LEAD RATING SYSTEMS HAVE GONE TO

AN UPGRADE.
WE REQUIREMENT VERSION FOUR.
>> IT'S BEEN REPRIORITIZED WITH
FOCUS ON CARBON REDUCTION.
I WOULD SAY AT THIS POINT A CODE
COMPLIANT BUILDING WOULD FALL
SHORT OF LEAD CERTIFIABLE
WITHOUT A MEASURABLE EFFORT.
WHAT IS HARD IS PRACTICE
NORMALIZATION.
FOLKS KNOW WHAT A MINIMUM
RESPONSE IS TODAY.
WE DON'T SEE LESS.
WHAT IS REALLY GOOD IS BY THIS
ON GOING DIALOGUE WE SEE BETTER
PRACTICES WE SEE PROJECTS
COMMITTED TO LEAD GOAL.
ESPECIALLY LARGER ONES THAT ARE
ANTICIPATING GREATER IMPACTS AND
CHANGE, IF YOU WILL.
>> LIKE MILLENNIUM TOWERS, YOU
HAVE SEEN THAT?
>> YES.
WE'RE FORTUNATE.
WE HAVE A LOT TO THANK OUR
BUILDING LEADERS IN BOSTON.
>> A NUMBER OF LARGE DEVELOPERS
HAVE BEEN LEADING IN GREEN
PRACTICES.
THEY'RE TKPWAOEUT LIGHTENED.
WE SELECTED THIS SYSTEM WITH A
MARKET VALUE DIMENSION TO IT.
>> THIS PRODUCING A LOT OF
PRESSURE ON THE SECOND AND THIRD
TIER PRACTITIONERS.
THEY HAVE TO KEEP WITH EACH
OTHER.
THE MARKET WILL VALUE
ACCORDINGLY.
WE SEE CLOSE TO HAVE OF THE OF
THE LEAD BUILDINGS IN BOSTON ARE
EXISTING BUILDINGS.
MANY ARE HIGH RISES UNDERGOING
LEAD.
I HAVE SEEN DRAMATIC REDUCTIONS
OF ENERGY USE.
HAVE ITEMIZED WITH CASTLE
SQUARE.
WE SEE HUGE PERFORMANCE IN
REALLY BIG BUILDINGS THIS.
IS OUTSIDE OF OUR REGULATORY
SPACE.
BY ENTIRE MARKET PRACTICE.
IT'S INTENTIONAL.

WE DON'T LIST A FINGER FOR THE ACHIEVEMENTS.
>> - TKPWERBTING YOU THE NEW TENANT.
>> ARE YOU SAYING THIS THE LEASTY FISH KWREBT?
>> THEY HAVE A LOST IMPORTANT TURNINGS ALT.
>> WHILE I SAY FLOOR TO CEILING.
>> FLOOR TO CEILING GLASS WHERE THE BUILDING EXTERIOR IS PRINCIPLELY GLASS PANES. THERE IS BEAUTY AND FUNCTIONALITY TO THAT. MOST USE A BASIC CURTAIN WALL SYSTEM THAT DOESN'T PROVIDE A GREAT DEAL OF INSULATION ALONG THE EXTERIOR. THAT'S NOT TRUE ENTIRELY. WE DO HAVE BUILDINGS LIKE THE HANCOCK LIFE BUILDING IN SOUTH BOSTON THAT USES A MORE ADVANCED TRIPLE WALL SYSTEM. THE MAJORITY OF THE BUILDINGS THAT ARE GOING UP ARE USING A DOUBLE INSULATED WALL SYSTEM.
>> TWO PIECES OF GLASS WITH THE INSULATION IN THE MIDDLE.
>> YES.
>> THERE IS MORE TO IT.
>> YES.
>> A MORE HIGH PERFORMANCE THAN SAY A RESIDENTIAL WINDOW. IT'S NOT A WALL WITH SIGNIFICANT INSULATION EITHER.
>> YOU TALKED ABOUT ALL ELECTRIC BUILDINGS IN -- HOW DO WE, HOW DO WE TALK TO THE COST THERE. ELECTRIC HEAT AND GAS HEAT.
>> HOW DOES THIS COME DOWN AND MAKE THIS POSSIBLE.
>> IT'S REALLY A MAGIC MOMENT IF YOU WILL ALLOW ME. WE HAVE SEEN FANTASTIC ADVANCES IN AIR SOURCE HEAT PUMPS. THEY PRODUCE HEATING FROM OUTSIDE AIR IN THE COLDEST WINTER DAYS. THEY DO IT MORE EFFICIENTLY THEN ELECTRIC RESISTENT HEATING. WE ARE MAKING OUR BUILDINGS MORE EFFICIENT WITH LESS COST AT THIS POINT.
WE INCUR COSTS WITH THE ENERGY

AND INSULATION, THICKNESS OF WALLS.
WE SPEND LESS ON THE BUILDING MECHANICAL SYSTEMS THAT KEEP THE BUILDINGS WARM AND COOL.
>> THERE ARE IMPORTANT SYNERGIES HERE TOO.
BUILDING RESIG GENT SEE TO CLIMATE CHANGE.
WHAT WE SA +*U IN THE WESTERN PART OF THE STATE.
NET ZERO HOMES SPENDING THREE TO FOUR DAYS WITHOUT POWER.
LOSING TWO TO THREE DEGREES OF I OBJECT TIER I DON'T REMEMBER TEMPERATURE A DAY.
NO HEAT, NO COOLING.
COASTING.
>> THAT'S ALL IN THE ENERGY, CORRECT?
>> YES.
THE ENVELOPE DIZ -BT GO ANYWHERE.
YOU CAN GO TO HOME DEPOT AND BOY THESE THINGS.
THE NEXT TIME THE ELECTRIC WATER HEATERS BAILS OUT YOU WILL LIKELY BUY AN AIR SOURCE WATER HEATER --
>> ON DEMAND WATER.
>> YES.
AND A CONSTANT DEHUMIDIFIER IN THE BASEMENT TO BOOT.
IT'S AMAZING TO SEE THE PRODUCTS AND SERVICES AVAILABLE AT MARKET NOW DRIVING THE CHANGE.
>> THAT SAME UNIT GOING TO TRICKLE DOWN RESIDENTIAL.
THINK OF LEG TRICK HEAT IT'S RESIDENTIAL APPLICATION.
>> THIS IS THE RESIDENTIAL SCALE.
PROBABLY THE MOST ROBUST PRACTICE AREA NOW.
WE EXPECT THE STATE TO COME OUT WITH AIR SOURCE HEAT PUMP SYSTEMS AND HOT WATER SYSTEMS.
WILL YOU SEE THOSE PRICES COME DOWN BOTH ON THE SUPPLY SIDE AS MANUFACTURERS COMPLETE.
>> E PLANE THIS TO ME.
IT PULLS AIR FROM THE OUTSIDE AND HEATS IT UP TO DISBURSE THROUGH THE HOUSE?

>> ROUGHLY IT'S AN AIR
CONDITIONER WORKING IN REVERSE.
>> OKAY.
>> THE CITY OF BOSTON IS WORKING
WITH OTHERS TO SAY HOW DO WE
BRING INFORMATION TO THE
RESIDENTIAL COMMUNITY THAT IS
MOST, IN THE BEST PLACE TO TAKE
ADVANTAGE OF IT.
IT'S NOT HOMES WITH GAS BUT OIL
HEATING OR ELECTRIC RESISTENCE
HEAT NOW WHERE USING AIR SOURCE
HEAT PUMPS IS MORE EFFICIENT AND
CHEAPER SOURCE OF HEATING.
>> HOW IF THE ELECTRICITY BEING
GENERATED?
>> THE TRICK IS USING LESS
ELECTRICITY.
>> YOU'RE STILL USING WHATEVER,
WHATEVER IS --
>> THIS IS WHY WAOR HERE IN
BOSTON AND YOU KNOW THE
COMMONWEALTH WITH A HUGE AMOUNT
OF WORK IN THIS AREA WORKING TO
INCREASE THE SUPPLY OF THE GRID.
>> SO IT BENEFITS AS THE GRID
BECOMES CLEANER.
>> ARE THERE CITIES APPLYING
THIS METHODOLOGY FOR RESIDENTIAL
NOW ALREADY?
>> LIKE MANDATING THAT NEW
RESIDENTS ARE LEAD CERTIFIED?
ANY POCKETS LOOKING AT RESIDENT
FOR THIS?
>> I THINK IT'S BACK TO
CALIFORNIA, IT WAS HERE, IT WILL
BE HERE AGAIN.
THEY HAVE ON THE BOOKS NOW NET
ZERO SMALL RESIDENTIAL
REQUIREMENTS FOR 2020.
BY 2020 ALL NEW SMALL
RESIDENTIAL WILL HAVE TO BE NET
ZERO ENERGY.
>> PORTLAND AND BOULDER COLORADO
IS DOING WORK WITH HEAT PUMPS.
WE'RE TALKING WITH COLLEAGUES IN
THOSE CITIES TO SEE WHAT THEY'RE
DOING AND UNDERSTAND WHAT IS
WORKING AND NOT WORKING.
ALL CALIFORNIA RESIDENTS BY 2020
STPHEURBLGS ALL NEW.
>> AND A RETROFIT BEHIND THAT
FOR EXISTING?
>> YOU WILL PROBABLY SEE.

THE WAY WE SCALE IN PRACTICE.
SMALL RESIDENTIAL, LARGE
RESIDENTIAL AND SMALL
COMMERCIAL.

THE SCALE MOVES UP.

>> AND THE AIR IN TAKE HEAT
PUMPS.

HOW LONG HAVE THEY BEEN AROUND
FOR A RESIDENTIAL APPLICATION?

>> PROBABLY CLOSE TO TEN YEARS
NOW.

WHAT IS DRAMATICALLY DIFFERENT
IS THE NUMBER OF SUPPLIERS.
THE COST AND YOU CAN GO TO HOME
DEPOT AND BUY THESE THINGS.
THEY'RE PLENTIFUL AND THERE ARE
MORE TYPES AND VARIETY OF THE
PRODUCT AVAILABLE.

IT'S MUCH MORE USER FRIENDLY.
OUR BIGGEST CHALLENGE INITIALLY
WAS BUYING SYSTEMS SMALL ENOUGH.

>> THANK YOU.

I WOULD LIKEN DESPITE THE
OUTWARD HOSTILITY IN WASHINGTON
THE MARKET IS STEPPING UP.
HEAT PUMPS, I WOULD SAY ELECTRIC
CARS IS THE SAME.

BECAUSE OF AN INCREASE AD
WARENESS AND INCENTIVES.

YOU SEE MORE AND MORE PEOPLE USE
IT.

>> THINK IF I HAVEN'T HEARD
ABOUT THEM PEOPLE USING THEM MY
SENSE IS THEY'RE A LITTLE WHILE
AWAY FROM COMING INTO WIDE USE
FOR RESIDENTIAL.

IS THAT SAFE TO SAY?

>> WELL INTO THE SAFE ZONE.

>> THANK YOU.

>> COUNSELOR PRESSLEY.

>> THANK YOU, THANK YOU
COUNSELOR OWE MALLY FOR YOUR
STEADFAST LEADERSHIP.

I HAD A LOT OF QUESTIONS.

I WILL SHIFT.

I WANTED TO ASK A QUESTION.
MY COLLEAGUES AND I CAME FROM,
WE THANK THE MASS MUNICIPAL
RESEARCH BUREAU FOR HOSTING US
ANNUAL LY WE SHARED A STA TAFT I
CAN THAT IN 2030, 85% OF THE
JOBS HAVEN'T BEEN INVENTED YET.
THIS BEGS A QUESTION OF
READINESS.

I AM KAOURBIOUS.
I KNOW FOR A LOCK TIME ISSUES IN
THIS SPACE WERE ISSUES AT
FORWARD THINKING AND
PROGRESSIVE.
>> FROM A WORK FORCE AND ECONOMY
SIDE.
I WAS HOPING YOU COULD SPEAK TO
THAT.
>> HOW DO WE ADDRESS THIS?
TALKING ABOUT PRODUCTS AND
SERVINGS I WONDERFUL THEY'RE
MANUFACTURED.
WHO HAS THE JOBS AND HOW MANY
MORE WE STAND TO CREATE?
>> I CAN SPEAK TO A COUPLE OF
POINTS ON THIS.
THE INTERESTING POINT OF THE
CONVERSATION OF THE GREENING OF
THE ECONOMY AND THE IDEA YOU
WOULD CREATE A VAST NUMBER OF
NEW GREEN JOBS IS GETTING
RETHOUGHT.
WE'RE GREENING JOBS THE WAY
WE'RE GREENING BUILDINGS.
THIS IS MORE UNDERSTAND AND IT'S
ABOUT HELPING YOUNG APPRENTICES
AND JOURNEY MEN.
GETTING TRAINING WHEN THEY'RE
YOUNG SO THEY CAN SHOW UP AS THE
NEW EMPLOYEE WITH THE NEW NEEDED
EXPERTISE.
IT'S ABOUT TRAINING PEOPLE TO
RUN BUILDINGS AS THEY'RE BEING
RAN NOW.
I MENTION -DZ EARLIER WE HAVE
GREAT PARTNERS HELPING US IN
THIS WORK.
>> THE MASSACHUSETTS COUNCIL IS
HERE.
OUR EXECUTIVE DIRECTER IS HERE.
THE CHAPTER SHREDDING IN AN
EFFORT THAT WAS RECENTLY AWARDED
ABOUT \$1,250,000 FOR JOB
TRAINING IN THIS SPECIFIC AREA
WITH A FOCUS FOR YOUNGER
PRACTIONERS.
>> THIS IS VERY MUCH ON OUR
RADAR.
I OBJECT CREDIBLE OPPORTUNITY TO
GROW OUR ECONOMY HERE KEEPING
RESOURCES HERE.
WE'RE USING OUR HU NAN RESOURCES
AND NATURAL RESOURCES MORE

EFFICIENTLY RIGHT HERE.
IT'S VERY MUCH THE FOR FRONT OF
OUR THINKING.

>> CERTAINLY TALKING ABOUT --
IF YOU WILL A RETRAINING OF
PEOPLE THAT ARE ALREADY IN THE
INDUSTRY OR IN CONSTRUCTION AND
THE TRADE.

THAT BEGS A LARGER QUESTION AND
CONCERN RELATIVE TO EQUITY AND
OPPORTUNITY FOR THE JOBS.

THE FRONT OF MY MIND MADISON
PARK HIGH SCHOOL.

NOT ONLY THAT ARE YOU THINKING
ABOUT OUR YOUTH BUT PEOPLE MID
CAREER.

WE HAVE A SKILLS GAP AND
UNEMPLOYMENT.

YOU KNOW IT'S AN ISSUE HERE.
WE WANT TO MAKE SURE THOSE IN
THE GREATEST NEED IT AND MOST
VULNERABLE TO ENVIRONMENTAL
JUSTICE ISSUES WILL HAVE A
OPPORTUNITY TO BE PART OF THIS
ECONOMY AND WORK FORCE.

>> DO WE KNOW THE NUMBER OF
GREEN JOBS WE HAVE AND WHERE THE
LION SHARE IS.

THE GEOGRAPHICALLY AND WHO HAS
THEM?

>> LET'S GET THAT INFORMATION
FOR YOU.

>> IS WE ARE AND AS ANOTHER
EXAMPLE WE'RE CONCERNED ABOUT
RETRAINING.

A PILOT PROGRAM LOOKING HOW DO
WE RETRAIN THE FACILITY MANAGERS
AND BUILDING MANAGERS OF BOSTON
SO THEY'RE READY TO RUN NEW
SYSTEMS AND MAKE SURE OUR HVAC
AND ELECTRICITY SYSTEMS WORK IN
THE MOST EFFICIENT WAY.
WE'RE WORKING WITH PARTNERS AT
UTILITIES AND PARTNERS TO
ESTABLISH THAT TRAINING PROGRAM
FOR THE CITY OF BOSTON'S
EMPLOYEES.

>> I LOOK FORWARD TO HAVE THE
CONVERSATION AND BE A PARTNER
WITH YOU IN THAT.

>> NOT ONLY DOES OUR PLANET
DEPEND ON THIS BUT THE WORK
FORCE AS WELL AND DON'T WANT TO
LEAVE ANYONE BEHIND.

>> THANK YOU, COUNSELOR
PRESSLEY.
COUNSELOR WU.
>> THANK YOU.
>> APOLOGIES FOR STEPPING OUT.
IF YOU COVERED THIS LET ME KNOW
I WILL WATCH THE VIDEO.
ARE THERE PLANS IN TERMS OF THE
ADMINISTRATION IN 2050 TO SEEK
LEGISLATIVE TOOLS SPECIFICALLY
AROUND NET ZERO, CARBON FREE,
CITY AND STATE LEVEL TO HIT
THAT.
>> WE WANT TO IDENTIFY THE TOOLS
WE THINK WE WILL NEED.
IT'S POSSIBLE TO LOOK FOR STEPS
BUT HAVEN'T LAID OUT THE STEPS
TO TAKE.
>> DID YOU SAY NEXT FALL.
>> IT SHOULD BE COMPLETED THIS
SUMMER.
>> THEN IT WILL BE A FOUNDATION
FOR AN UPDATE OF THE CLIMATE
ACTION PLAN REPRESENTING THE
POLICY DECISION THAT'S WE WANT
TO MAKE.
AND THERE MAYBE RESIDENT LA TORY
AND LEGISLATIVE TOOLS
RECOMMENDED FOR THE PROCESS.
>> THAT'S 2019?
>> OKAY.
>> SO WHAT DO YOU THINK ABOUT
ADOPTING A CALIFORNIA RULE AT
THE CITY LEVEL FOR 2030?
>> IT DEPENDS ON THE DETAILS.
>> IN PRINCIPAL WE WANT TO
REQUIRE BETTER BUILDING
PERFORMANCE.
PART THAT HAD COMES THROUGH THE
RATCHETING OF THE STATE BUILDING
CODE.
PART IS THROUGH THE MECHANISM OF
THE UPDATING OF THE LEAGUE
REQUIREMENTS.
THESE ARE TOUGHER.
KWEPB WE WILL SEE WHAT WILL
EVALUATE THE ADDITIONAL MEASURES
WE MAY TAKE.
>> GREASE.
THINK CHANGING THE FRAMEWORK AND
THE BARGAINING OR INCENTIVES IS
REALLY THE FASTEST AND ONLY WAY
TO INSURE TO GET THERE.
>> PUSHING SOONER THAN 2019 TO

GET TO LEGAL TOOLS AND HOW WE
BEGIN TO TAKE BACK THE
LEADERSHIP FROM THE WEST COAST
ON THIS ISSUE.

>> THANK YOU S ARE MICHAEL
FLAHERTY HAS THE LAST QUESTION
BEFORE THE EXERTS STPHRAO QUICK
QUESTION, WHAT PROGRESS HAVE WE
MADE FOR OUR CARBON NEUTRALITY
GOAL OF 2050?

>> SINCE 2005 WE'RE DOWN ABOUT
13 PERCENT.

>> 2015 AS I MENTIONED BEFORE
YOU CAME IN, COUNSELOR, THE 2015
GREEN HOUSE GAS INVENTORY.
WE SHOULD RELEASE THE DATA AND
FINAL RESULTS IN THE NEXT FEW
WEEKS.

WE WILL MAKE SURE YOU GET A COPY
WHEN THAT'S RELEASE -DZ.

>> I'M EAGER TO GET IT OUT, NO
DEFINITE DATE AT THIS POINT.

>> IT MUST BE GOOD NEWS IF
YOU'RE EAGER TO GET IT OUT.

>> I AM EAGER -PLGT.

>> MAKER SURE THE CHAIR GETS A
COPY THAT WOULD BE GREAT.

>> THANK YOU, CARL.

>> THANK YOU, GENTLEMEN, IF YOU
DON'T MIND.

YOU HAVE AGREED TO HEAR FROM THE
EXPERTS.

YOU WANT TO DRAB THOSE TWO
SEATS.

I WOULD LIKE TO INVITE
CHRISTOPHER, JANA, BOB, AND
JOAN.

>> YOU CAN LIKE UNIN WHATEVER
ORDER.

UPLT WHO WOULD LIKE TO START?
INTRODUCE YOUR START,
ORGANIZATION, OPENING THOUGHTS
AND GET TO Q & A.

>> I'M -- I'M A TPHROEBL
ARCHITECTURE FIRM, A BOSTON
OFFICE AT 20 ASHBIRD AND PLACE.
OUR WORK ENCOMPASSES ALL WORK
AND MASTER PLANNING.

I'M A REGISTERED AR TEBGT FOR 25
YEARS.

FOR THE PAST 15 YEARS I'M
FOCUSED ON HIGHLY ENERGY
EFFICIENT AND THOSE TARGETING
NET ZERO. I WILL SAY MAYOR

DAVIS, I WAS A PRINCIPAL DESIGNER AND ARCHITECT FOR THEIR FIRST SCHOOL IN THEIR GREEN SCHOOL INITIATIVES.

DR. MARTIN LUTHER KING JR. PROJECT.

>> FROM MY PERSPECTIVE AS AN ARCHITECT IT'S POSSIBLE. WE HAVE THE TECHNOLOGY TODAY TO MAKE BOSTON A NET ZERO CARBON CITY.

EVERY DAY THERE IS INCREASE NUMBER OF PROJECT THAEBGTS ARE NET ZERO CARBON AND NET ZERO ENERGY.

>> I HAVE BEEN TO START WITH WHAT THIS ALL MEANS.

A NET ZERO ENERGY BUILDING -- THE ENERGY DELIVERED IS LESS THAN OR EQUAL TO THE RENEWABLE ENERGY EXPORTED.

THIS MEANS THE BUILDING PRODUCES AS MUCH ENVELOPE AS IT CONSUMES. NOW A NET ZERO CARBON BUILDING IS SLIGHTLY DIFFERENT.

THIS IS A BUILDING ON-SITE WITH RENEWABLE CARBON FREE ENERGY FOR IT'S CONSULTS.

>> IN EITHER CASE THE FIRST STEP IS TO REDUCE ENERGY CONSUMPTION.

+*EUFRPBLGTS THAT'S WHERE I FOCUS MY PROJECTS.

WE FIRST SET ENERGY GOALS WITH CLIENTS EARLY.

UTILIZE BEST PRACTICES FOR MASSING AND SOLAR ORIENTATION AND DAYLIGHT CONTROL.

THEN AN AIRTIGHT EXPERIENCE -- I MAY ADD APPROPRIATE WINDOW TO WALL RATIOS AND HIGHLY ENERGY EFFICIENT SYSTEMS THAT ARE INTEGRATED AND WORKING WITH ENGINEERS, OWNERS.

WE INSURE TO MAKE SMART AND COST EFFECTIVE DECISIONS.

IT'S IMPORTANT FOR BUILDINGS TO OPERATED, MAINTAINED AND TRACKED.

>> THESE SOURCES PROVIDE RELATIVELY SMALL THERE DEMAND FOR THE BUILDINGS.

>> WE WELCOME THOUGHTFUL AND CHALLENGES TO IMPROVE THE

BUILDINGS WE DESIGN.
WE ARE CONFIDENT THIS WILL COST
LESS TO OPERATE AND POLLUTE
LESS.
WE ENCOURAGE THE PUBLIC SECTOR
TO REQUIRE AND IN SEN TAOEUF ACT
EUGZ.
I'M HAPPY TO ANSWER QUESTIONS.
>> I THINK WE WILL DO OTHER
OPENING STATEMENTS AND THEN
QUESTIONS.
>> GOOD AVERAGE.
I WOULD LIKE TO THANK YOU FOR
THE OPPORTUNITY TO BE HERE
TODAY.
BOSTON MEDICAL CENTER IS A PROD
LEADER IN ENVIRONMENTAL SUSTAIN
ABILITY.
>> THIS PAST YEAR WE HAVE BEEN
RECOGNIZED AS ONE OF THE TOP 25
HOSPITALS FOR ENVIRONMENTAL
EXCELLENCE IN THE UNITED STATES.
BUCKERS ONE OF THE TOP 50
GREENEST HOSPITALS IN THE
NATION.
BMC HAS RECEIVED AN 80%
REDUCTION IN GREEN HOUSE GAS
EMISSIONS FROM BUILDING ENERGY.
WE'RE ON PACE TO BE CARBON NET
NEUTRAL BY 2019.
THIS MAYBE A EXTRAORDINARY COULD
A. KPHREURBMENT.
WE HAVE FOUND THIS HAS IMPROVED
THE RESILIENCY AND QUALITY OF
OUR FACILITIES REDUCING THE
TOTAL ENERGY SPENT BY NEARLY
50%.
THOSE EFFORTS WERE MULTI
FACETED.
FIRST AND FOR MOST CAME A IN
DEPTH SPACE PLANNING ANALYSIS.
>> FOCUSING ON THE PRODUCTIVITY
OF OUR BUILDINGS.
THIS CONSOLIDATES CURRENT TWO
CAMPUSES INTO ONE.
ELIMINATING SPACE REDUNDANCIES
OF TWO CAMPUS CONFIGURATION.
WE HAVE A ROAD MAP TO REDUCE
FOOTAGE.
AND STILL GROWING CAPACITY TO
SEE PATIENTS ACROSS OUR SERVICE
LINES.
OUR ENERGY DEPARTMENT THE
BUSINESS WILL EXPANDED CAPACITY

BY NEARLY 30%.
IN ADDITION THE SQUARE FOOTAGE
WAS SOLD FROM THE BMC PORTFOLIO
STIMULATING HALF A BILLION
DOLLARS IN THE NEIGHBORHOOD.
IN CLOSE PARTNERSHIP WE HAVE
HIGH EFFICIENCY SYSTEMS.
LED LIGHTING.
CO GENERATION PLANT.
CO GENERATION PLANT NOT ONLY
REDUCES OUR ENERGY COSTS BY
1.5 MILLION ANNUALLY BUT WE ARE
THE FIRST HOSPITAL IN THE STATE
TO HAVE CAPABILITIES TO ALLOW US
TO POWER AND HEAT OUR FACILITIES
IN THE EVENT OF A NATURAL
DISASTER.
>> THIS WAS MADE POSSIBLE WITH A
GRANT WE APPLIED FOR.
>> FINALLY ENVIRONMENTALLY
CONSCIENCE PROCUREMENT IS A
IMPORTANT ROLL IN OUR SUCCESS.
>> OVER TO CO GENERATED
STEAMING.
THEN THE LARGEST CONTRIBUTOR TO
OUR GREEN HOUSE GAS EMISSION
REDUCTION IS ATTRIBUTED TO
WORKING WITH A BETTER CITY TO
COLLABORATE.
>> EVER EXCUSED IN THE UNITED
STATES.
THE CONTRACT PRODUCED POWER
EQUIVALENT TO A HUNDRED PERCENT.
>> THANK YOU.
>> WELL DONE BOB.
THAT'S AMAZING.
WE CAN CLAP FOR.
THAT THANK YOU.
>> CHRISTOPHER.
>> TOUGH ACT TO FOLLOW.
MY NAME IS CHRIS -- PRESIDENT
AND FOUNDER OF THE GREEN
ENGINEER.
A SUSTAINABLE DESIGN CONSULTING
FIRM.
TO THE EARLIER COUNSELOR'S
QUESTION ABOUT GREEN JOB.
WE WERE ONE PERSON IN 2005 AND
TODAY WE'RE 18 AND HIRING.
WE'RE NOT UNIQUE.
WE HAVE GROWN WITH THE GROAN
ECONOMY.
I'M A ENGINEER IN THE STATE OF
MASSACHUSETTS.

I.

>> I WORK ON A LOT IN BOSTON INCLUDING BOSTON PROPERTIES AND -- PEOPLE WHO ARE BUILDING SEA PORT AND OTHER BUILDINGS IN TOWN.

I WANT TO MAKE FOUR KEY POINTS ON WHERE WE ARE FOR CARBON FREE BUILDINGS.

>> THE BIGGEST TAKE AWAY IS BUILDINGS HAVE A LONG LIFE. A CAR OR CONSUMER APPLIANCE -- THE DECISIONS TO DAY WILL AFFECT THE CONSUMPTION OF ENERGY FOR THE NEXT 30, 50, PERHAPS A 100 YEARS.

THE TIME TO PUT THE EFFICIENCY MEASURES IN IS NOW WHEN WE BE SIGN.

IT'S MORE COST EFFECTIVE. THE BIGGEST IMPACT IS THE BUILDING NOT A RETROFIT. WE TALK ABOUT NET ZERO SKR-R. IT'S A WORTHY GOAL AND SOMETHING SOME BUILDINGS ARE ABLE TO ACHIEVE.

>> WHAT IS IMPORTANT THAT WE CREATE BUILDINGS TO USE ENERGY EFFICIENTLY AND THROUGH CARBON FREE SOURCES.

AS THE GRID GETS GREENER. IF HE WITH HAVE BUILDINGS DECARBONIZED WE WILL GET TO NET ZERO CARBON AS A COMMUNITY AND CITY, A REGION, A COUNTRY AND A WORLD.

THAT'S WHAT WE'RE TRYING TO GET TO.

SO, TARGETING NET ZERO CARBON NOW FOR NEW BUILDINGS WILL ENCOURAGE NEW BUILDING ENERGY EFFICIENCY.

THIS WILL MOVE US AWAY FROM HEATING OUR BUILDINGS WITH FOSSIL FUELS IT WILL INCREASE THE DEMAND FOR RENEWABLE ENERGY WHEN YOU LOOK AT WHAT BOSTON MEDICAL CENTER HAS DONE.

THIS HAS INCREASED THE SUPPLY OF RENEWABLE ENERGY FOR EVERYONE.

>> IS WE CAN DECARBONIZE THE HEAT, THE HEAT PUMPS MENTIONED. WE'RE PUTTING THESE IN EVERYWHERE THESE DAYS.

THEY'RE VERY, VERY, VERY VIABLE.
THE CITY REQUIREMENT IS A GREAT
THING FOR LEAD.

LEAD IS NOT KEEPING UP WITH
WHERE WE NEED TO BE.

THE STATE BASED ENERGY CODE.
THE STATE BASE ENERGY CODE IS
MORE STRINGENT.

TO BE SIMPLY A LEAD CERTIFIED
BUILDING.

IF BOSTON WE SAY YOU ROLL OUT OF
BED AND YOU'RE LEAD CERTIFIED.
WE NEED A HIGHER BAR.

I LOOK FORWARD TO YOUR
QUESTIONS.

THANK YOU.

>> THANK YOU, COUNSELORS.

>> I TEACH A GRADUATE COURSE.

SEVERAL OF YOU HAVE BEEN
SPEAKERS IN THAT COURSE.

MY LAST BOOK WAS CALLED EMERALD
CITIES.

I FOCUSED ON THE LINK OF
ECONOMIC DEVELOPMENT AND THE
CITY PLAN.

I WILL PUBLISH ONE NEXT YEAR
CALLED GREENOVATION.

I FOCUS ON EUROPE AND NORTH
AMERICAN CITIES LOOKING AT
REPLICABLE POLICIES.

HOW DO WE GET TO ZERO NET ENERGY
BUILDINGS ASK RENEWABLE ENERGY.
IN THE COUPLE OF MINUTES I HAVE
I WOULD LIKE TO SAY A FEW THINGS
ABOUT DIFFERENT APPROACHS TO
GETTING THERE.

ONE IS INTERIM POLYS AND
STEEPING A SUCCESSFUL BASE.
ONE IS GOING BEYOND THE BUILDING
SCALE AND ONE LOOKING AT
PARTNERSHIPS WITH DEVELOPERS.
WILL HE ME START WITH VANCOUVER.
I WAS ON THE PHONE THIS MOURNING
ABOUT HOW THEY IMPLEMENT THEIR
PLANS.

THEY HAVE A RETPHOUBL CITY
STRATEGY FOR A HUNDRED PERCENT
RENEWABLE ENERGY AND ZERO
EMISSIONS ENERGY PLAN.

WHAT THAT MEANS FOR PRACTICE
LIKE A CONDO GOING UP LIKE THOSE
IN BOSTON, RIGHT NOW IT HAS TO
MEET TWO TARGETS.

ONE HAVING TO DO WITH THE THEY

WERAL ENERGY DEMAND.
THAT IS A AMBITIOUS GOAL.
FOR GREEN HOUSE GAS EMISSIONS
THAT'S 6 MILLIMETERS PER METER
PER YEAR.
THAT'S MOVING TO THE COMPLETE
ELECTRIC.
THAT'S IMPORTANT FOR A CITY LIKE
VANCOUVER.
ALMOST ALL OF THE ELECTRICITY
COMES FROM HYDRO POWER.
IF YOU'RE ALL ELECTRIC YOU'RE
ALL GREEN.
>> NOW SOMEONE ASKED ABOUT
TPHARPL GAS COMPANIES.
KNEAD LESS TO SAY NATURAL GAS IS
NOT HAPPY WITH THIS.
ONE OF THE THINGS THEY HAVE DONE
ALONG THE WAY IS NEGOTIATE WITH
THE UTILITY GO DEVELOPING
RENEWABLE NATURAL GAS,
BIO GASES, DOING IT IN A WAY TO
COST SHARE WITH THE CHEAPER
NATURAL GAS TO IMPLEMENT THE NEW
TECHNOLOGY.
THE OTHER THINGS THEY'RE DOING
IS ZERO READY.
IS THIS A INTERIM STEP.
>> THIS IS BUILDING SOMEBODY
THAT CAN GET TO ZERO NET ENERGY
BUT DOESN'T RIGHT NOW.
PART OF THE REASON THEY'RE DOING
IS WHAT THEY'RE DOING IS
ANTICIPATING THE CHANGES
NECESSARY IN THE BUILDING CODES
AND WORKING WITH THE DEVELOPERS
TO GET READY TO DO THAT.
IT DOES REQUIRE NEW CONSTRUCTION
TECHNOLOGIES.
>> SO, THINK THAT'S A STRATEGY
TO ANTICIPATE ALL OF THE
REGULATORY AS WELL AS JUST
CONSTRUCTION TECHNOLOGIES GOING
TO BE NEEDED.
>> AT THE DISTRICT SCALE WE
HEARD BRIEFLY ABOUT FORT
COLLINS, COLORADO.
THIS IS AN AREA OF TWO SMILES
SQUARE.
15% OF THE ELECTRICITY LOAD OF
THE CITY.
WHAT THEY'RE DOING IS BUILDING
TO ZERO NET ENERGY STANDARD
THERE.

THINK WHAT HAPPENS IS WHEN YOU
MOVE TO THE DISTRICT AND THE
BUILDING SCALE IT ALLOWS THEM TO
LOOK AT INTEGRATION OF
DISTRIBUTED SYSTEMS THIS.
IS ABOUT MOVING ENERGY FROM ONE
BUILDING TO ANOTHER.
SO YOU CAN SHAVE PEAK DEMAND AS
PART OF THE PROCESS OF GETTING
TO ZERO NET ENERGY.
>> THERE IS A LOST SOFTWARE TO
TEST FOR THIS.
A LOT OF TECHNOLOGIES THIS.
IS A PUBLIC PRIVATE PARTNERSHIP
FOR SOFTWARE COMPANIES.
>> IN ADDITION SPEAKING TO
ECONOMIC DEVELOPMENT QUESTION
THEY'RE DEVELOPING THE
TECHNOLOGIES OF THE FUTURE BUILD
THAT ZERO NET ENERGY.
>> BEFORE I MENTION ABOUT THE
CONSTRUCTION AND DEVELOPMENT
COMMUNITY ANOTHER CITY I FOLLOW
CLOSELY IS -- SWEDEN.
ONE OF THE THINGS THEY HAVE DONE
REALIZING THE BUILDING COMMUNITY
NEEDS TO LEARN THIS IS ESTABLISH
A LIVING BUILDING PARTNERSHIP.
>> IF A DEVELOPER WANTS TO
BUILD IN THE CITY.
THE CITY SAYS OKAY WE EXPECT YOU
TO BUILD TO 85-KILOWATT HOURS
PER TO +* SQUARE METER TO YEAR.
THE DEVELOPERS SAY WE DON'T KNOW
HOW TO DO THAT.
SO THEY SAY WE WILL LEARN.
AT EACH STEP THE VARIOUS
DEVELOPERS AND CONSTRUCTION
COMPANIES ARE LEARNING THE NEW
TECHNOLOGIES EXPERIENCING WHAT
FINDING OUT WHAT WORKS AND
DOESN'T.
>> IF MAY ONE MORE QUICK ONE.
THERE IS A SOCIAL JUSTICE TO
THIS WE SHOULD BE BUILD LOW
INCOME GREEN HOUSING AS WELL.
>> THIS IS A PERSON, O'CONNELL
DEVELOPING IN PHILADELPHIA,
PASSIVE HOUSE.
IT'S FOR THE LOWEST INCOME
POPULATION.
PASSIVE HOUSE MEANS NO EXTERNAL
HEATING OR COOLING REQUIRED.
HE HAS FIGURED OUT HOW TO DO

THIS AT 2% TO 3% ABOVE REGULAR HEATING.

NEW YORK STATE IS FOLLOWING THIS PATTERN AS WELL.

MY POINT IN THIS IS RIGHT NOW THERE ARE CITIES AND STATES THAT ARE BUILDING TO THESE STANDARDS AND WE SHOULD LOOK TO THEM AS WHERE WE NEED TO GO IN BOSTON.

>> THANK YOU, VERY MUCH, PROFESSOR.

I WANT TO ACKNOWLEDGE WE HAVE BEEN JOINED BY DISTRICT 9, 8 -- DISTRICT 9 CITY COUNCILOR CIOMMO.

I WANT TO THANK THE BCEC TO HELP PUT TO GET THEY ARE PHENOMENAL PANEL.

YOU HAVE COVERED SO MUCH IMPORTANT STUFF.

THE TALK OF THE POSSIBLE, PRACTICAL AND POLITICAL.

>> BOB, I KNOW THE ANSWER TO QUESTION BUT I LOVE IT HOW MUCH MONEY DOES.

>> ABOUT \$8 MILLION ANNUALLY.

>> PHENOMENAL.

>> NOW I DON'T KNOW THE ANSWER TO THIS QUESTION.

I ASSUME A LARGE PART ONE YEAR FROM NOW BMC WILL REACH THEIR GOAL.

CO GENERATION.

CAN YOU TALK ABOUT WHAT IT IS, WHY IT'S IMPORTANT.

HOW IT'S A SUCCESSFUL PART OF THE PORTFOLIO YOU HAVE PUT FORWARD.

>> THIS IS A NATURAL GAS FIRED ENGINE ON THE ROOF OF OUR YAKI BUILDING.

IT ALLOWS US TO GENERATE ABOUT TO PERCENT OF "POOR ON-SITE.

AT A SPEAK PERIOD.

IT'S ABOUT 35 PERCENT MORE EFFICIENT THEN TRADITIONAL POWER.

>> WHEN YOU GENERATE ELECTRICITY IN A POWER PLANT THE HEAT IS EXTRACTED TO ATMOSPHERE.

>> IT ALLOW YOU SEE US TO GENERATE HEAT.

>> THIS IS ABOUT 35 PERCENT MORE EFFICIENT.

GENERATES 20-25% IN A PEAK PERIOD.
>> IF YOU HAD MORE SPACE TO BUILDING SOMETHING BIGGER WOULD THE NUBBIN CREASE.
>> WE WOULD OF GONE LARGER.
>> THE KEY TO MAXIMUM EFFICIENCY IS TO USE THE HEAT ON A YEAR AROUND BASIS.
THIS GENERATES HEAT IN THE SUMMER MONTHS.
IT'S SIZED TO MATCH THE HEAT LOAD DURING THE SUMMER MONTHS FOR MAXIMUM EFFICIENCY.
>> HAVE OTHERS REACHED OUT TO SAY WE WANT TO DO THIS TOO?
>> YES.
OEUFRPBLGTS FANTASTIC.
CHRIS, YOU HAVE BEEN IN THIS SPACE WORKING FOR A WHILE. WE TALKED BRIEFLY.
TALK ABOUT THE CHANGE OF TECHNOLOGY AND DO WE NEED TECHNOLOGY TO CONTINUE TO CHANGE AND WAIT TO IMPLEMENT THESE THINGS?
>> THAT IS A GREAT QUESTION.
>> I HEARD SOMEONE SAY, YOU STUDENTS, WILL IN VENT WHAT AFFECTS OUR FUTURE.
I WALKED AWAY UPSET.
I TOLD MY STUDENTS NO THAT'S WRONG.
WE HAVE THE TOOLS RIGHT NOW. THE TECHNOLOGY OF LED LIGHTING, AIR SOURCE HEAT PUMPS, ADVANCE BUILDING AUTOMATION SYSTEMS, THE TRIPLE SKIN FACADES TO SHADE ITSELF AND SMART BUILDING TECHNOLOGY AND RENEWABLES LOWER THEN WHERE WE USE TO BE.
THE TIME NOW IS TO DO THIS. NO REASON TO WAIT.
YES, THERE WILL BE NEW EN "VATIONS WE HAVE WHAT WE NEED TO REACH THESE GOALS NOW.
>> FANTASTIC AND WELL SAID.
CAN YOU TALK ABOUT THE PRIVATE SECTOR IN YOUR EXPERIENCES AND WHAT YOU HAVE STUDIED.
>> INCENTIVES THAT SOME CITIES USE LIES.
>> WHO SETS THE LEAD -- THAT FEDERAL WHO SETS LEAD CERTIFIED.

>> LEAD COMES FROM THE U.S.
GREEN BUILDING COUNCIL.
A INDEPENDENT NON PROFIT.
IT OPERATES ON A CONSENSUS
BASIS.
I'M ON THE LEAD STIRRING
COMMITTEE.
WE'RE USING 4.1 RIGHT NOW,
WORKING ON IT.
>> WE HAVE 4.0 NOW.
>> YES.
>> LEAD IS TRYING TO APPLICABLE
EVERYWHERE.
THEY WANT PEOPLE TO USE THE
SYSTEM NOT JUST IN MASSACHUSETS
BUT PLACES LIKE ALABAMA.
RIGHT NOW STATE IS MORE
STRINGENT.
>> YES ABOUT 5% MORE STRINGENT
THEN LEAD'S MINIMUM REQUIREMENTS
FOR ENERGY.
IF YOU'RE A LEAD PLATINUM
BUILDING THAT'S A MAJOR
ACHIEVEMENT.
JUST ON THE ENERGY PIECE WE
CAN'T RELY ON LEAD ALONE.
>> THE BAR WILLING RAISED WITH
BUILDING CODES BEING CHANGED.
RIGHT NOW.
THE HARD PART TOO IS
CONSTRUCTION PROJECTS USE THE
PREVIOUS VERSION OF LEAD.
THEY WENT FOR PERMITTING THREE
AND FOUR YEARS AGO.
>> SHOULD WE MADE NATURAL GAS --
>> LEAD HAS NO PREFERENCE.
>> BACK TO JOAN AND JANA.
WHAT HAVE YOU SEEN FROM THE
BUSINESS PERSPECTIVE AND BEST
PRACTICES.
WHAT TOOLS AND INCENTIVES HAVE
OTHER CITIES USED TO MOVE US TO
NET ZERO OR MOVE THEIR CITIES TO
NET ZERO.
>> WELL, I THINK THAT THE IDEA
OF THE NEED TO GET THE PRIVATE
SECTOR ONBOARD.
YOU HEAR PEOPLE SAY WE CAN'T
TELL DEVELOPERS WHAT TO DO.
ONE OF THE APPROACH THAT'S I SEE
THROUGHOUT THE UNITED STATES IS
ARCHITECTURE 2030.
WITH THE 2030 DISTRICTS.
YOU GET ALL IN A DOWNTOWN

DISTRICT TO AGREE TO HIGH LEVELS
OF ENERGY EFFICIENT SEE AND
WATCH EFFICIENCY AND
TRANSPORTATION.

WHAT I LIKE IS THIS IS VOLUNTARY
BUT GETS THE BUSINESS COMMUNITY
ONBOARD.

>> SEATING WAS THE FIRST ONE.
IT'S NOT JUST SEATTLE IT'S
PITTSBURGH AND CLEVELAND THAT
ARE REALLY MOVES.
IT'S GETTING THEM ALL ONBOARD TO
BE PARTNERS AND DO IT, IT'S
EFFECTIVE.

>> HERE IN CAMBRIDGE I'M MOST
FAMILIAR WITH CAMBRIDGE, I HAVE
A LONG TERM CLIENT WITH
INCENTIVES BUILT INTO THEIR
PROGRAM.
INCLUDING HEIGHT AND AREA.
I HAVE TO SAY MOST OF THE CITIES
DOING THE MOST AMAZING THINGS
LIKE EVEN WASHINGTON DC.
THEY'RE LEADING BY EXAMPLE TO
SHOW IT CAN BE DONE.

>> DOING AS COSTS IN THE MIDDLE
OF ARPBLGZ OF THE SAME TIME.
IT'S NOT JUST STANDING BACK BUT
SHOWING THIS CAN BE DONE.
IT CAN BE DONE AT SCALE.
HERE IN BOSTON, I MEAN ONE OF
OUR EARLY BOSTON PROJECTS WAS A
LEAD GOAL.

>> NOW WE'RE CONTINUING THIS AND
INCREASING TO VERSION FOUR.
INCREASING OUR GOALS AND ENERGY
EFFICIENCY.

SO, THERE IS, THIS IS ANOTHER
BUILDING STANDARD.
THE DEVIL IS IN THE DETAILS.
I KNOW PEOPLE TALK ABOUT THE
GADGETS TO ADD TO A BUILDING.
ONE OF THE THINGS WE LIKE TO DO
AS A MIND SET.
PRETEND WE DON'T HAVE SYSTEMS.
HOW DO WE DESIGN A BUILDING
WITHOUT SYSTEMS AND THEN
INTEGRATE THEM.
WE DO THE BEST ENVELOPE WE CAN.
REITERATING AND INVEST THE
DOLLARS AND THINGS THAT LAST.
LET'S NOT INVEST IN A 20 YEAR
LIFE SPAN.
THAT'S WHAT MOST MECHANICAL

SYSTEMS ARE AT.
LET'S INVEST IN THE ENVELOPE AND
THE TRIPLE GLAZING, LET'S HAVE
AGAIN THE CITY OF CAMBRIDGE THEY
ACTUALLY MEASURE THE GROSS FLOOR
AREA OF A BUILDING TO THE
OUTSIDE FACE OF THE SHEETING NOT
THE FINISHED MATERIAL.
THEY DID THAT BECAUSE THEY
DIDN'T WANT HIGHER IF FORM APBS
ENVELOPS WITH LOTS OF INSULATION
TO BE PENALIZED.
>> YOU ADD WHATEVER IT IS.
IT'S STILL BACK AT THE POINT.
SO EVERYONE IS LEVEL AND NOT
PENALIZED.
>> THAT'S SMART.
>> IS TAKE AWAYS CITIES LEADING
BY EXAMPLE.
I DIDN'T THINK ABOUT THAT.
THE THIRD POINT I WOULD SAY IS
IT'S INCUMBENT UPON US AND AS
MEMBERS OF THE COMMUNITY.
I KNOW WITH A LARGE SCALE OR
SMALL SCALE DEVELOPMENT IT'S
LENGTHILY AND THERE IS A LOT
ASKS FOR.
I WOULD ARGUE THAT AS ALL OF US
AS RESIDENTS WE NEED TO ASK FOR
MORE NET ZERO CARBON BUILDINGS
AS WELL.
THAT SHOULD BE PART OF WHAT WE
WANT TO SEE.
>> THAT'S ALL FOR ME.
QUESTION FLAHERTY.
>> SAME WAVE LENGTH.
A LOT OF OUR BUILDINGS ARE 40,
50 YEARS OLD AND OLDER THAN
THAT.
>> NEW CONSTRUCTION STUFF, A
GOOD HANDLE ON.
THAT CITY, THE MAYOR'S OFFICE
THE BRA AND COUNCIL WORKING WITH
COMMUNITY LEADERS THEY HAVE A
GOOD HANDING ON THE NEW STUFF
OUT OF THE GROUND.
YOU THINK ABOUT THE OLD BONES.
THERE ARE A LOT OF OLD
BUILDINGS.
TO GET THOSE BUILDINGS
RETROFITTED THAT'S A
CONVERSATION WITH THE LANDLORD.
ANY MEDIATE COST EFFECTIVE WAYS?
>> I THINK THE LARGER

BUILDINGS.

WE FIND PEOPLE DON'T REALIZE
EFFICIENT OR UNEFFICIENT A
BUILDING IS UNTIL WE POINT IT
OUT.

IT'S DIFFICULT AS A RETROFIT.
THERE IS THE ALTERNATIVE OF
DOING NOTHING.

TO GET THE PAY BACK ON
INVESTMENT IS TOUGHER.

YOU KNOW I THINK ONE OF THE
THINGS THAT WE HAVE LEARNED IS
YOU CAN IDENTIFIED LOW HANGING
FRUIT FAIRLY EASILY.

THERE IS THIRD PARTY FUNDING
FORGETTING OFF OIL HEAT AND
PUTTING IN AIR SOURCE HEAT
PUMPS.

THE MASS -- AND ANOTHER PROGRAM
IN JANUARY FROM THE STATE WITH
THE ALTERNATIVE ENERGY KR-Z.
FIGURING OUT HOW TO GET PEOPLE
INTO THE BUILDINGS TO LOOK AT
THE ENERGY THEY'RE CONSUMING AND
TACKLING THE LOW HANGING FRUIT
IS COST EFFECTIVE AND USEFUL.

>> I WILL SAY THERE IS
TREMENDOUS FINANCE HELP FOR
INSULATION IN ATTIC AND THAT
SORT OF THING.

UTILIZING AND UNDERSTANDING WERE
YOUR ENERGY, HOW MUCH IS YOUR
LIGHTING VERSUS YOUR HEATING,
THAT'S REALLY IMPORTANT.

ONE OF THE THINGS WE TALK ABOUT
WITH OUR CLIENT IS A ENERGY
BUDGET.

PEOPLE UNDERSTAND THEY HAVE TO
LIVE WITHIN THEIR MEANS FOR A
FINANCIAL BUDGET.

MOST PEOPLE, GUARANTEED MOST
PEOPLE HAVE NO IDEA WHAT THE
ENERGY BUDGET SHOULD BE FOR
THEIR HOUSE.

TODAY AND WHAT IT SHOULD BE.
HAVING THOSE CONVERSATIONS AND
UTILIZING FUNDING SOURCE THAT'S
PROVIDE THAT INVESTIGATION IS AS
IMPORTANT AS ACTUALLY PROVIDING
THE INSULATION TO IMPACT WHAT IS
CAUSING THEM TO SPEND THE MOST
ENERGY.

IN THESE DAYS THE LED LIGHTING
MAKES A HUGE IMPACT ON THE

LIGHTING.
LIGHTING ACTUALLY IS MUCH
SMALLER PERCENT OF THE PIE NOW.
THE NEXT STEP ISN'T FOCUSING ON
LIGHTING BUT FOCUSING ON THE
HEATING SOURCES, YOU KNOW, THE
HEATING SYSTEMS.
THEN BEYOND THE ENVELOPE.
ESPECIALLY WHEN YOU TALK ABOUT
SIMPLE RESIDENTIAL PROJECT
THAEBGTS DON'T HAVE A LOT OF
OTHER TYPES OF SYSTEMS IN THEIR
BUILDINGS.
THAT LIKE A HOSPITAL DOES.
>> TO BUILD ON YOUR POINT
ABOUT -- THAT, THE ENERGY
BUDGET.
PEOPLE ARE NOT AWARE.
EVEN AS GOOD AS THIS IS THE TAKE
UP ON THE SYSTEMS IS NOT
PARTICULARLY GOOD.
EVEN WITH THE SUBSIDY.
ENERGY IS A SMALL PART OF THE
BUDGET AND UNLESS YOU'RE LUIS
FLEISCHMAN INCOME IT'S NOT
MOTIVATED.
SOME CITIES HAVE DONE
INTERESTING THINGS FOR PUBLIC
AWARENESS.
IN AUSTRALIA, THEY HAVE A HUGE
BILLBOARD SHOWING ON TIME ENERGY
USAGE.
THEY HAVE DIVIDED THE CITY IN
DISTRICTS.
THEY'RE COMPETING WITH EACH
OTHER ABOUT WHO CAN BE THE MOST
ENERGY EFFICIENT DISTRICT.
THEY HAVE COOLS WHERE THE
EDUCATION PROGRAMS ARE BUILD
AROUND COMPETING TO REDUCE
ENERGY CONSUMPTION.
>> NOW I'M BLANKING ON THE
SCHOOL.
THE TECH PROGRAM.
THAT IS ONE PLACE WE'RE
ACTUALLY, THE CITY OF BOSTON IS
WORKING TO TEACH PEOPLE.
ALSO IN THE BOSTON ARTS ACADEMY.
I'M DOING THAT PROJECT AS WELL.
THANK YOU VERY MUCH FOR THAT.
WE ACTUALLY WORKING WITH THEM.
THEY HAVE A HIGHLY ADVANCED
PROGRAM TO EXPOSE SYSTEMS AND
THE WALL CONSTRUCTION.

TO TEACH THE KIDS TO HAVE A
DIFFERENT RELATIONSHIP WITH
ENERGY TO KNOW HOW THE SYSTEMS
AND ENERGY WORKS.
EVEN FOR THOSE IN THE GENERAL
PROGRAM, MAYBE NOT THEY'RE GOING
INTO BUILDING SCIENCE BUT WE ALL
LIVE IN BUILDINGS.
ANOTHER THING ABOUT HAVING
HIGHLY EFFICIENT BUILDINGS ARE
MORE COMFORTABLE.
PEOPLE DON'T TALK ABOUT THAT BUT
THE AIR QUALITY IS BETTER, YOU
KNOW THE THERMAL PERFORMANCE OF
A REALLY GREAT WINDOW MEANS IT'S
NOT DRAFTY.
YOU DON'T HAVE ALL THAT HAD HEAT
GAIN IN THE SUMMER AND DRAFT IN
THE WINTER TIME.
IT'S COMFORTABLE.
REDUCES STRESS.
IT IMPROVES TEST SCORES WITH THE
CONNECTION OF DAYLIGHT IN AN
APPROPRIATE WAY.
YOU HAVE GLASS WITH DISTRIBUTED
LIGHT IT'S A WONDERFUL PLACE TO
BE IN.
WHETHER IT'S HOUSING OR HIGHER E
STK-RBGS OR HEALTHCARE DO.
ING THINGS APPROPRIATELY
IMPROVES PEOPLES LIVES.
>> FANTASTIC.
>> THANK YOU, THAT WAS
ILLUMINATING.
I WANT TO RESPECT EVERYONE'S
TIME.
THANK YOU FOR THAT.
WE HAVE ONE MORE PANEL OF
TERRIFIC ADVOCATES.
YOU CAN CLAP FOR THEM.
THEY WERE GREAT AND DESERVED IT
I WOULD LIKE TO CALL UP FOR
ADVOCATES.
>> JOIN US UP HERE.
WE WILL GET TO PUBLIC TESTIMONY.
THANK YOU, THANK YOU.
>> THANK YOU TO EXECUTIVE
DIRECTOR OF SUSTAINABLE ENERGY.
APPRECIATE YOUR TIME.
THANK YOU, WE APPRECIATE YOU
GOING FORWARD.
WHO IS STARTING FOR THIS GROUP?
>> I THINK I WILL START.
>> THANK YOU.

>> I WANT TO START RECOGNIZING
THE GREAT WORK THE CITY COUNCIL
HAS DONE THIS YEAR TO PASS
COMMUNITY CHOICE ENERGY AND
BANNING PLASTIC BAGS.
I WANT TO ENCOURAGE THE HOLE
COUNCIL TO HEAR ME SAY IT,
CONTINUE TO BE BOLD IN YOUR
CLIMATE ACTION.
>> THANK YOU.
>> MY NAME IS ANDY.
I'M A RESIDENT OF BOSTON AND
VOLUNTEER WITH MOTHERS OUT
FRONT.
WE'RE WORKING FOR A LEVEL OF
CLIMATE FOR OUR KIDS.
I HAVE TWO CHILDREN.
SIX-YEAR-OLD JONA WHO LOVES
HARRY POTTER AND 9-YEAR-OLD MIA
WHO LOVES TO BAKE.
THEIR HEALTH, SAFETY AND FUTURE
WELL BEING ARE ALWAYS ON MY
MIND.
I MAKE SURE THEY WEAR BICYCLE
HELMETS.
EAT FIVE FRUITS AND VEGETABLES
AND OVERSEE THEM BRUSH THEIR
TEETH AND FLOSS.
IT CAN BE A TEDIOUS TAS SKP-BG
MY KIDS COMPLAIN ABOUT BRUSHING
THEIR TEETH.
I REMIND THEM THIS PREVENTS THEM
FROM GETTING FILLINGS.
IT'S UNCOMFORTABLE FOR THEM AND
EXPENSIVE FOR ME.
FOR THE PRICE OF TOOTHBRUSHES
AND A COUPLE OF MINUTES A NIGHT
WE CAN INSURE HEALTHY SMILES FOR
YEARS TO COME.
AS A CITY WE HAVE THE SAME
CHOICE AS MY KIDS AND I DO.
WE CAN SPEND UP FRONT TIME RIGHT
NOW CUTTING CARBON AND COSTS.
OR A FEW YEARS FROM NOW WE
RETROFIT AT A FAR GREATER COST
THEN BUILDING THEM SUSTAINABLY
IN THE FIRST PLACE.
BASICALLY OPTING FOR FILLINGS
OVER TOOTHBRUSHES.
IN BOSTON OVER 70 PERCENT OF CAR
BOBBIE MISSIONS ARE FROM
BUILDINGS.
WE HAVE OVER A HUNDRED BUILDINGS
UNDER CONSTRUCTION NOW WITH MORE

ON THE DOCKET.
WE CAN'T AFFORD TO BUILD
BUILDINGS WITHOUT THE INTENTION
OF RETROFITTING THEM DOWN THE
ROAD.
WE DON'T HAVE THE TIME.
CLIMATE CHANGE IS UPON US.
EACH DAY TKWOEPT REACT WE BORROW
ON BOSTON KIDS FUTURE.
THE TIME FOR ACTION IS NOW.
PROTECT OUR KIDS FUTURE.
>> THANK YOU, ANDY.
WELL SAID.
>> THANK YOU.
TO THE PANEL FOR HEARING THIS
TESTIMONY.
LET ME INTRODUCE MYSELF.
--
>> I WOULD LIKE TO EMAT THAT
SIDES THREE REASONS THE CITY OF
BOSTON SHOULD CONSIDER A NET
ZERO CARBON POLICY.
FIRST A STRONG PUBLIC HEALTH
ARGUMENT.
NEW CONSTRUCTION RELIES HAFBLY
ON NATTER GAS FOR HEATING AND
COOKING THIS.
IS A PROBLEM.
THIS CAUSED PUBLIC HEALTH
CONCERNS FROM THE EXTRACTION, TO
GAS LEAKS TO, WHERE IT'S BURNT
IN STOVES AND FURNACES.
REVIEW STUDIES HAVE DEMONSTRATED
THE SERIOUS HEALTH EFFECTS.
BEN SCENES AND FORMALDEHYDE
CAUSE CANCERS.
LUNG DISEASES, HEART ATTACK AND
STROKE.
MERCURY LEADS TO MISCARRIAGE,
PREMATURE BIRTH AND NEURO LOGIC
DISORDERS.
GAS RELEASE HURTS SEW ZONE.
>> CHILDHOOD ASTHMA ACCORDING --
ACCORDING TO MANY PEER REVIEW
MEDICAL STUDIES IS LINKED TO
LIVING IN A HOME WITH NATURAL
GAS TO COOK WITH.
GAS BURKE STOVES RELEASE MANY OF
THE CARCINOGENS FOUND NEAR
COMPRESSOR STATIONS AND DRILL
RINGS.
ALL OF THESE AND PM25,
MICROSCOPIC PARTICLES.
THIRD METHANE IS A POET TENT

HEAT TRAPPING GAS CONTRIBUTING
SUBSTANTIALLY TO CLIMATE CHANGE.
WHEN GREEN HOUSE GAS EMISSIONS
FROM ANY SOURCE ARE REDUCED OR
AVOIDED WE HAVE MEDIATE BENEFITS
RIGHT HERE IN MASSACHUSETTS.
LOWER LEVELS OF PARTICLES IN THE
AIR.

FOR THESE REASONS BUILDINGS NEED
TO ELIMINATE GAS AND MOVE AWAY
FROM THIS IN NEW CONSTRUCTION.
WE AT MASSACHUSETTS HEALTH
PROFESSIONALS CONSIDER
ADVOCATING FOR CLEANER AIR IT
AND RESPONSE OF CLIMATE CHANGE.
AS A MECHANISM TO MITIGATE THE
NEGATIVE IMPACT OF FOSSIL FUELS
THIS NET ZERO CARBON INITIATIVE
IS POSITIVE FOR THE COMMONWEALTH
AND PROTECT THE HEALTH OF OUR
SIT SENDS.

THANK YOU.

>> THANK YOU, DOCTOR.

>> THANK YOU, COUNSELOR O'MALLEY
FOR HOLDING THIS HEARING.

THANK YOU FOR THOSE THAT ARE
HERE.

MY NAME IS.

I'M THE CLEAN ENERGY PROGRAM
MANAGER.

I'M HERE TO REPRESENT MCAM.
I'M REPRESENTING THE BOSTON
SCREEN ENERGY COLLISION.

>> AS WE ALL KNOW RIGHT NOW
BOSTON IS GOING THROUGH A
BUILDING BOOM.

WILL 65 MILLION SQUARE FEET
PROPOSED PLANNED OR PERMITTED.
MUCH OF THIS BUILDING IS HOUSING
WHICH WE NEED BUT DUE TO MINIMAL
GUIDANCE AROUND CLIMATE ISSUES
MANY DEVELOPERS DEFAULT TO
RUNNING THE SYSTEM WITH NATURAL
GAS.

THIS IS IN DIRECT OPPOSITION OF
MAYOR WALSH AND 0 THE COMMITMENT
SIGNED BY THE MAYOR.

THE REUFRPBLGS BUILDINGS -- I
WOULD LIKE TO SPEAK BRIEFLY TO
WHY THE CITY OF BOSTON NEEDS A
NET ZERO PLANNING PROCESS.

RIGHT NOW THE CITY HAS AT LEAST
13 DIFFERENT PLANNING PROCESS
THAT'S DO NOT WORK WITH EACH

OTHER WE HAVE THE DESIRE FOR A
CLIMATE FRIENDLY CITY
COORDINATION IS SUPPLEMENTARY
AND NOT BUILT KNOT CITY.
CARBON FREE BOSTON IS A GOOD
IDEA THAT'S BEEN DELAYED.
IN ADDITION IT'S MY
UNDERSTANDING THERE IS NO
EXPLICIT PORTION OF THE PROCESS.
IT'S INCLUDING THE PUBLIC AND
HEARING WHAT THE COMMUNITY WANTS
TO SEE.
BY THE TIME PLANS ARE COMPLETED
AND IND TKPRAEUTED AT THIS
POINT.
MORE BUILDINGS WILL BE BUILT.
THEY NEED TO BE IMMEDIATELY
RETROFITTED TO MEET THE GOALS.
IT DOESN'T MAKE SENSE.
WHAT IS NEEDED NOW IS A BOLD AND
MEDIATE PLAN FOCUSING ON THE
BUILT ENVIRONMENT.
RESPONSIBILITY FOR 50% TO 80% OF
CAUSING EMISSIONS.
WE NEED A PLAN NOW INFLUENCING
HOW BUILDINGS ARE BUILT TODAY
MAKING THEM ALL ELECTRIC.
>> THIS IS WHY BCEC AND MCAM ARE
IN FAVOR OF THE PROPOSAL AND WE
ENCOURAGE BOSTON NOW.
THANK YOU.
>> THANK YOU A APPRECIATE IT.
>> GOOD AFTERNOON.
I'M A MINISTER IN JAMAICA PLANES
AND MEMBER OF THE GREEN JUSTICE
COLLISION.
>> I WANT TO START BY
CELEBRATING THERE ARE MANY
THINGS TO BE PROUD OF IN BOSTON.
>> WE ARE A LEADER IN THE
COUNTRY.
>> I WANT TO BE THANKFUL FOR THE
WORK THAT HAS BEEN DONE AND THE
WORK OF TIA MARTIN DOING WORK TO
HELP PEOPLE NOT THINK ABOUT
MITIGATING CLIMATE CHANGE BUT
ADAPTING TO A CLIMATE FUTURE.
>> I WANT TO CELEBRATION WORK
DONE TO ENCOURAGE PEOPLE TO DO
THE RIGHT THING.
THIS MAY NOT BE THE BEST JOB.
WE HAVE COME TO A POINT KNOWING
WE ARE MOTHER GUYING THE FUTURE
OF OUR YOUNG PEOPLE.

>> ALL THE ENERGY WE USE IS NOT
ALOTMENT FROM GOD WE ARE
STEALING FROM OUR GRAND CHILDREN
AND LEAVING THEM THE BILL AND
ASKING THEM TO TAKING
RESPONSIBILITY.
A FEW WEEKS AGO I WAS WITH GREEN
BUILD.
WE HOSTED AND BROUGHT THE BEST
MINDS OF GREEN TECHNOLOGY FROM
AROUND THE WORLD.
I HAPPENED TO BE AT A TABLE WITH
A GENTLEMAN FROM CALIFORNIA.
>> -- BOSTON AS AB DOUGH
DOCATED.WHY WOULD WE STEP DOWN FROM A
STATE COUNCIL OF ENERGY
EFFICIENCY?
I WILL ASK THAT TO AUSTIN BLACK
THE LEADER.
I KNEW CALIFORNIA TOOK THE FIRST
PLACE AWAY FROM US.
WE HAD THAT BACK.
HE TOLD ME THAT THEY MOVE
FORWARD BY SHAPING THE MARKET
AND NOT WAITING ON IT THAT
COUNCILS CITY AND STATE LEVEL
HAVE THE OPPORTUNITY TO TELL
PEOPLE THIS IS WHERE WE'RE
GOING.
THE SAME BUILDINGS RELY ON
POLICE, FIRE, WATER SERVICES AND
ALL OF THE THINGS THAT THE CITY
HELPS TO PROVIDE.
IF WE WANT THEM TO BE IN LINE WE
HAVE TO SEND A SNAG OF WHAT IT
IS WE EXPECT FROM THEM.
IS A THINK WE KNOW THIS IS A
JUSTICE ISSUE.
AS A CITY WE'RE VULNERABLE.
>> EARLIER THIS YEAR I WAS AT
THE GREEN RIBBON, WE WERE ON THE
EIGHTH FLOOR OF THE IN OWE ATION
DISTRICT, THAT'S WHAT I CALL IT
NOW AT THIS POINT.
>> WE WERE GIVING A POWERPOINT
PRESENTATION.
WE SAW THE DISTRICT BECOME
FLOODED.
WE WERE TOLD IT WOULD HAPPEN
MONTHLY BY AS EARLY AT.
THIS ROOM WAS FILLED WITH TOP
EXECUTIVES.
CEOs AND LEADERS.
YOU COULD HEAR A PIN DROP AND AS

WE REALIZED WE WERE THIS A
BUILDING THAT WOULD FLOOD
MONTHLY.
THAT'S THE FUTURE WE'RE HANDING
TO OUR CHILDREN AND TELL THEM TO
FIGURE IT OUT DOWN THE LINE.
THE REALITY IS BOSTON IS AT A
CROSSROADS NOW.
>> EVERYWHERE I TURN I SEE A
EMPTY HOUSE OR LOT TURNED INTO A
FANCY CONDO.
WE HAND OUT CANDY AND THEY'RE
NOT THERE ANYMORE.
OUR NEXT DOOR AND I'M NOT
KNOCKING THOSE THAT MOVED THERE.
OUR NEXT DOOR IS THROW FAMILY
CONDOS AND THE RESIDENTS ARE NOT
FROM THE CITY.
OUR NEIGHBORS ARE OUT IN QUINCY.
WE'RE IN A MOMENT WHERE THOSE
LIVING IN THE CITY, I HAVE
ALWAYS CALLED THE CITY MY HOME.
IT'S A BITTERSWEET MOMENT.
WE WATCH AS THE DEEP PRESSURE OF
THE BUILDINGS IS CAUSING OUR
HOUSING MARKET TO BE
UNSUSTAINABLE FOR THOSE WHO HAVE
CALLED THIS HOME FOR DECADES AND
GENERATIONS AT TIMES.
FOR THE SAME BUILDINGS TO PUT
PRESSURE ON THE PLANET FORCING
US TO LEAVE THIS CITY SKWR +*EUFT
DOESN'T MAKE SENSE.
IF WE ARE GOING TO BUILD ALL
OVER THE CITY AS WE CURRENTLY
ARE THEN EVERYTHING WE ADD TO
THIS CITY SHOULD REDUCE THE
PRESSURE WE FEEL AND THE REALITY
THAT WE FACE.
AS CLIMATE CHANGE IS MORE AND
MORE A REALITY OF LIFE THIS.
IS OUR OPPORTUNITY.
IF WE WAIT, I DON'T KNOW WHERE
YOU LIVE.
I DON'T SEE PARCELS NOW.
WE HAVE TO MOVE NOW BEFOREJ+Ñ
CELEBRATE THE WIN OR TWO
BUILDINGS GREEN AND RETROFIT THE
THOUSANDS UP.
I KNOW IT'S TOUGH.
MY MOTHER ALWAYS SAID, WHERE
THERE IS A WILL THERE IS A WAY.
I TRUST IN A CITY LEADING THE
WAY IN INNOVATION WE WILL FIND A

WAY.
MULTIPLE CREATIVE SOLUTIONS OF
HOW TO GET THERE.
IF WE WAIT TOO LONG THERE MAY
NOT BE ENOUGH LEFT TO DO.
THANK YOU.
>> THANK YOU, REGULAR RAND.
>> THANK YOU, ALL.
THANK YOU, AGAIN.
THIS WAS ANOTHER PHENOMENAL
PANEL.
I DON'T HAVE QUESTIONS.
YOU WERE INCREDIBLY IMPACT FULL
WITH YOUR STATEMENTS AND
EXPERTISE.
THIS SIM PACING.
OUR KIDS, GRAND KIDS.
PUBLIC HEALTH PIECE.
WE HAVE MANY COOKS AND CHEFS IN
THE KITCHEN TO STREAM LINE AND
THE URGENCY IS NOW.
I HAVE CONCEDED THIS MANY TIMES.
VERY IMPACT FULL.
AT THE COMMUNITY CHOICE ENERGY
HEARING.
IT SO HAPPENED THAT THREE PEOPLE
TESTIFYING IN THE HEARING.
HOUSTON, PUERTO RICO AND THE
CARIBBEAN.
THEY ALL REFERENCES IN PASSING,
WE DIDN'T DESIGN THIS BUT THEIR
FAMILIES WERE IMPACTED BY THE
STORMS.
THREE OF WHICH OCCURRING IN A
MONTHS PERIOD.
THIS NO LONGER WHEN WE TALK
ABOUT THE IMPACT.
IT'S HAPPENING NOW.
IT'S HAPPENED ALREADY.
THE URGENCY IS, IS TO TAKE INTO
ACCOUNT AND ACT NOW.
NO QUESTIONS, THANK YOU.
>>
>> THANK YOU, APPRECIATE IT.
SO I HAVE A NUMBER OF, I THINK I
HAVE FOUR OR FIVE, SIX PAGES OF
PUBLIC TESTIMONY.
MOST FOLKS HAVEN'T INDICATED,
WOULD NOT LIKE TO TESTIFY.