

WHO WILL BENEFIT FROM DECARBONIZATION?



SOCIETY

- DEPLOYING SOLUTIONS
- DEVELOPING UNDERSTANDING
- POLICY INCENTIVES

\$ INVESTMENT
IMPACT

\$ 100 TRILLION

WE'RE AIMING FOR AN EQUITABLE



TRANSITION

ALTERNATIVE SOURCES OF ENERGY



INVEST IN THE RIGHT PLACE



AFFORDABILITY OF RENEWABLE ENERGY & BATTERIES

SCALE OF THE TRANSITION

EMISSIONS SHOULD DROP



DRAMATICALLY

TRAVEL BEHAVIOR



ENABLING CONVENIENT CHARGING

UNDERSTANDING THE RISKS

CONVENIENCE IS A CRUCIAL FACTOR

CHARGING LOCATIONS:

- AT HOME
- SHOPPING MALLS
- HIGHWAYS



WIDER DISTRIBUTION OF SOLAR AND WIND ENERGY



TIMELY PUBLIC POLICIES INCENTIVES



MAINTAIN AND ENHANCE PUBLIC TRANSPORTATION



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ENVISIONING EQUITABLE TRANSITIONS TO SUSTAINABLE TRANSPORTATION SYSTEMS

DRAWN BY URBAN WILD STUDIO

URBAN PLANNING

ELEVATED CHICAGO

- PEOPLE
- PLACE
- PROCESS

SUPPORTING DEVELOPERS ON THE SOUTH & WEST SIDES OF THE CITY

ADVOCATING

FOR THE SYSTEM WE NEED

COMMUNITY COLLABORATION

WE DESERVE


PREPARING FOR THE SYSTEM

FOCUS ON EQUITY & ACCESSIBILITY

ESPECIALLY ON THE SOUTH & WEST SIDES OF CHICAGO

TRANSPORTATION

IS THE MAJOR SOURCE OF GREENHOUSE GASES IN THE US



ENVIRONMENTAL SUSTAINABILITY

TRACT TRAFFIC HAS GONE UP DUE TO e-COMMERCE



ELECTRIFICATION

- LACK OF CHARGING INFRASTRUCTURE
 - HIGH ADDPTION COST
 - INSUFFICIENT POLICIES
- 

ELECTRIC SCHOOL BUS TRANSITION

- DECARBONIZATION
 - HEALTH BENEFITS
 - CLEANER AIR
 - REDUCED EXPENSES
- 

ELECTRIC SCHOOL BUSES WORK IN 49 STATES



EQUITY

CHALLENGES:

- ROAD CONSTRUCTIONS
 - SCHOOL FUNDING
 - UTILITY & INFRASTRUCTURE COSTS
- 

TRANSPORTATION

ENERGY COST BURDEN

IS HIGHER FOR LOW-INCOME COMMUNITIES



AIR POLLUTION

EQUITY ANALYSIS

ENSURING BETTER OUTCOMES FOR EVERYONE



FUEL SAVINGS




ONE-SIZE-FITS-ALL POLICIES
DO NOT SERVE MARGINALIZED COMMUNITIES

WE MUST RECKON WITH INDIVIDUAL + INSTITUTIONAL RACISM

WHO ARE WE SERVING?

WE NEED Legislation NOT JUST Good Hearts

WE STILL FACE RACIALIZED INEQUITIES IN THE TRANSPORTATION SECTOR

CREATING A US CITY AS A GLOBAL MODEL FOR RACIAL EQUITY

EQUITICITY



2019 REBUILD ILLINOIS



75TH ST CORRIDOR IMPROVEMENT PROJECT

10x10 BLOCK AREA TO TRANSFORM

ELIMINATE TRUCK TRAFFIC

LEGACY

EDUCATIONAL PROGRAM

GRADE - HS

TO HELP STUDENTS IN COMMUNITIES UNDERSTAND CONSTRUCTION

+ PROJECT FOOTPRINT



A JUST TRANSITION TO ELECTRIFICATION FOR WORKFORCE + COMMUNITY



CHALLENGES + OPPORTUNITIES AROUND

ELECTRIFICATION

NEED TO QUANTIFY IMPACT

BENEFITS AIR QUALITY

TIMELY POLICIES
GRID - TIME OF DAY
EV'S CHARGE COMPOSITION

SUPPORT INFRASTRUCTURE DEVELOPMENT

* MULTI-FAMILY HOUSING

* STARTING WITH CITY-OWNED PROPERTY

SURVEYED + IDENTIFIED REGIONS

FINDINGS ALMOST NO ONE KNOWS ABOUT CLIMATE EQUITY PLAN!

FOCUS ON DECARBONIZING RAIL YARDS

FREIGHT ELECTRIFICATION

DIESEL!

* POLLUTION

* TRANSPORTATION IS LARGEST SOURCE OF GHG EMISSIONS IN ILLINOIS

* HEALTH IMPACT ON OUR COMMUNITY

INLAND PORT

PREDOMINANTLY LOCATED IN COMMUNITIES OF COLOR

OUR CONNECTION TO global TRADE

* FREIGHT IS A HUGE PART OF OUR ECONOMY

WHAT IS THE IMPACT OF THESE PATTERNS?

TRANSITION TO SUSTAINABLE TRANSPORTATION IS AN OPPORTUNITY FOR MORE EQUITY



SESSION 1B WHAT SUSTAINABLE TRANSPORTATION OPPORTUNITIES CONTRIBUTE TO INCREASING EQUITY? ENVISIONING EQUITABLE TRANSITIONS TO SUSTAINABLE TRANSPORTATION SYSTEMS



ELECTRIC NATION

NONPROFIT

23 NATIVE NATIONS

22 COMMUNITY EVENTS

15 LEVEL 2 CHARGING STATIONS

DEVELOPING EV CHARGING INFRASTRUCTURE

WITHING TRIBAL COMMUNITIES IN UPPER MIDWEST

SOLAR BEAR

COMMUNITY PRIORITIES

OUR FOCUS: EDUCATION

PUBLIC HEALTH

MORE THAN 60% OF OUR AIR POLLUTION COMES FROM CARS

HUMAN-CENTRIC

RESEARCH

EV PRODUCES 50% LESS CARBON DIOXIDE

ENVIRONMENTAL WELLBEING

LOCAL ACTION



- CLEAN ENERGY POLICIES
- REDUCE VMT
- DECARBONIZE TRANSPORTATION

LET'S DO IT!

REDUCE VEHICLE MILES TRAVELED



FOCUS AREAS:

ACCESS
TRANSIT
SAFETY

START WITH A PROBLEM YOU WANT TO SOLVE

93 SMART PROJECTS

E-MOBILITY

ECONOMIC DEVELOPMENT

- LONG TERM SAVINGS
- MORE JOBS!



BUILD & MAINTAIN SAFE INFRASTRUCTURE

ENCOURAGE WALKING & BIKING

CHECK-LIST

PURPOSE-DRIVEN INNOVATION

TECH AREAS

SMART GRID

INTELLIGENT INFRASTRUCTURE

CONNECTED VEHICLES

SMART TRAFFIC SIGNALS

SESSION 2A INTO OPERATION: STARTUPS AND LOCAL INITIATIVES

ENVISIONING EQUITABLE TRANSITIONS TO SUSTAINABLE TRANSPORTATION SYSTEMS



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FUNDING

AND FINANCE

REVENUE STREAM

METHOD OF PAYING

NEED NEW SOURCES FOR TRANSPORTATION FUNDS

SPENT ON HIGHWAY

↑ RISING CONSTRUCTION COSTS

↓ DECLINING GAS TAX REVENUES

↑ INCREASING COMPETITION FOR FED FUNDS

INNOVATIVE SOLUTIONS

- * INCREASE GAS TAX (SHORT TERM)
- * REPLACE GAS TAX WITH MILE TRAVELED TAX (LONG TERM)
- * INNOVATIVE FINANCE OPTIONS

EV TAX

INCLUSIVE GRANTS

BALTIMORE CITY

COMPLETE STREETS LEGISLATION

MAKING ROADS WORK FOR THE COMMUNITY

GROWTH

THE WORKFORCE HAS CHANGED

TRAINING A NEW WAVE

ENRICH ESSENTIAL SKILLS

CIRCLE OF COURAGE

CREATED A SAFE SPACE FOR STUDENTS TO LEARN, MASTER BELONGING + INDEPENDENCE

PROGRAM GRADUATES ARE EXTREMELY EMPLOYABLE

RESILIENCE + POSITIVE HUMAN DEVELOPMENT

3,200+ STUDENTS TRAINED

MORAL SPENDING

WHAT DOES OUR SPENDING SAY ABOUT OUR PRIORITIES?

NEW SOLUTIONS SPACE AND FINANCIAL BUDGETS

PICK UP DROP OFF
RADICALLY RETHINK OUR SPACE AT UIC

WE NEED ELECTRIFICATION BUT...

STATES CAN USE FED HWY FUNDS FOR OTHER MODES

MODE SHIFT IS IMPORTANT

AWAY FROM PRIVATE

FUNDING-HIGHWAYS IS CAUSING HARM

RESOURCES REQUIRE RESOURCES

BUDGETS NEED TO REFLECT WHAT'S MOST IMPACTFUL FOR CLIMATE CHANGE

HIERARCHY



BIKEMORE

PRACTICE AUTHENTIC + EQUITABLE ENGAGEMENT
ESTABLISH TRUST
DIVERSE VOICES

DIVERSITY
AGE CLASS
CULTURE RACE

RESPECT HISTORY AND LIVED EXPERIENCE

SHARE BACK—SHOW OUTCOMES

SESSION 2B

CATALYZING NEW SOLUTIONS

ENVISIONING EQUITABLE TRANSITIONS TO SUSTAINABLE TRANSPORTATION SYSTEMS

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UIC + UIUC CAN WORK TOGETHER



WHAT HAVE YOU LEARNED TODAY?

OLD POLICIES ARE MAJOR OBSTACLES

UNIVERSITIES ARE MODELS FOR INNOVATION

ETHICAL CONSIDERATIONS ARE PARAMOUNT

THESE ARE HUGE ISSUES BUT WE CAN START SMALL

WE CAN IMPROVE ACCESSIBILITY + MOBILITY LOCALLY IN SMALL WAYS

COMMUNITIES NEED TO BE INVOLVED IN DECISION MAKING



WHAT HAVE WE OVERLOOKED? WHAT'S MISSING?

THE PROFIT CHOKE HOLD OVER PROGRESSIVE POLICIES

CARBON TAX?

TEACHING PEOPLE HOW TO USE PUBLIC TRANSIT

LAND USE?

COMBAT STIGMAS TO OVERCOME CHALLENGES

WHAT CAN WE DO TO DEAL WITH SAME-DAY DELIVERY SERVICES?



WHAT ARE YOU MOST EXCITED ABOUT?



TO MAKE OUR COMMUNITIES BETTER PLACES

CREATING COMMUNITY

TRIBAL ENERGY PROJECTS AS A FORM OF RESISTANCE

TO DO THIS AGAIN!

THIS THOUGHTFUL, INCLUSIVE, EYE-OPENING WORKSHOP

RESEARCH OPPORTUNITIES

CONNECTIONS

MODE SHIFT > ELECTRIFICATION



HOW DO WE MOVE FORWARD?

REMEMBER ANALOG SOLUTIONS IN EMERGENCY SITUATIONS

MEET PEOPLE WHERE THEY ARE

CHARGE COMPANIES FOR ROAD USE BASED ON THEIR IMPACT (AMAZON)

TEAM BUILDING - LET'S MEET AGAIN!

MORE ACTION!



WRAP UP AND VISIONING

DISCUSSION, DIRECTIONS FOR FUTURE RESEARCH, AND CLOSING ENVISIONING EQUITABLE TRANSITIONS TO SUSTAINABLE TRANSPORTATION SYSTEMS

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