NET ZERO NBI & NASEO

DENIS HAYES

Denver

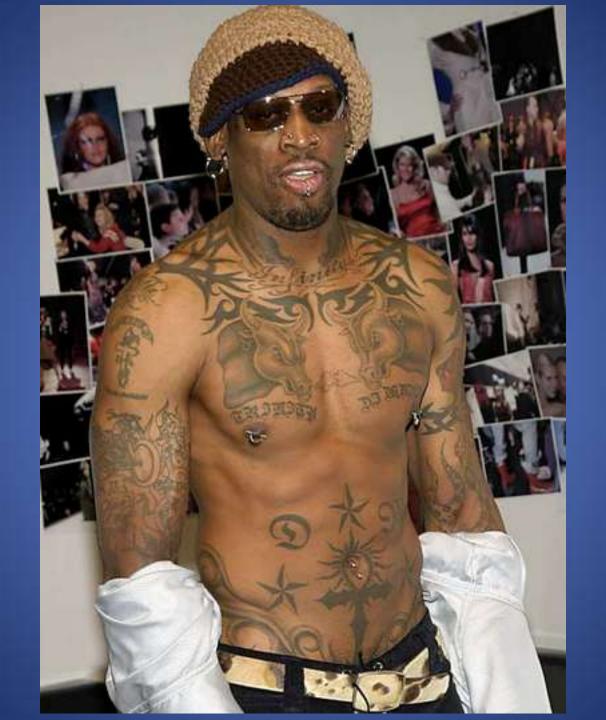
Sept 17, 2013

Pepper . . . and Salt

THE WALL STREET JOURNAL



"You're free to go, sir. But seriously, I'd get that prostate looked at."





Kim Jong-Un Named *The Onion*'s Sexiest Man Alive For 2012 [UPDATE]

NEWS - North Korea - Lifestyle - ISSUE 48-46 - Nov 14, 2012



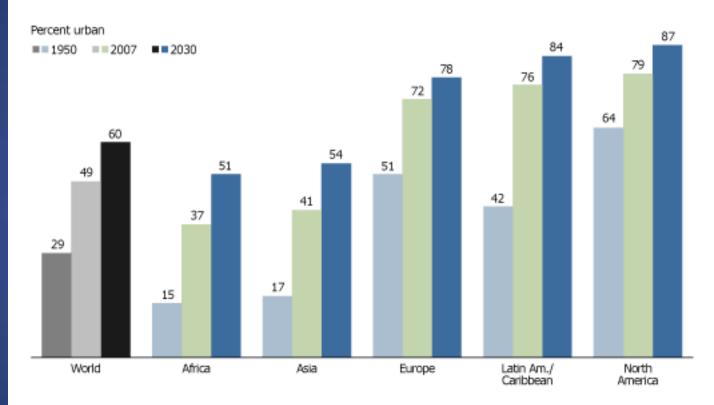
China plans to move 250 million people from the countryside into cities in the next 25 years.

That is roughly equal to the total urban population of the United States.

Hong Kong



By 2030, Nearly Two-Thirds of the World's Population Will Live in Urban Areas.



Source: United Nations, World Urbanization Prospects: The 2005 Revision (2006) and Carl Haub, 2007 World Population Data Sheet.

The Great Urban Migration

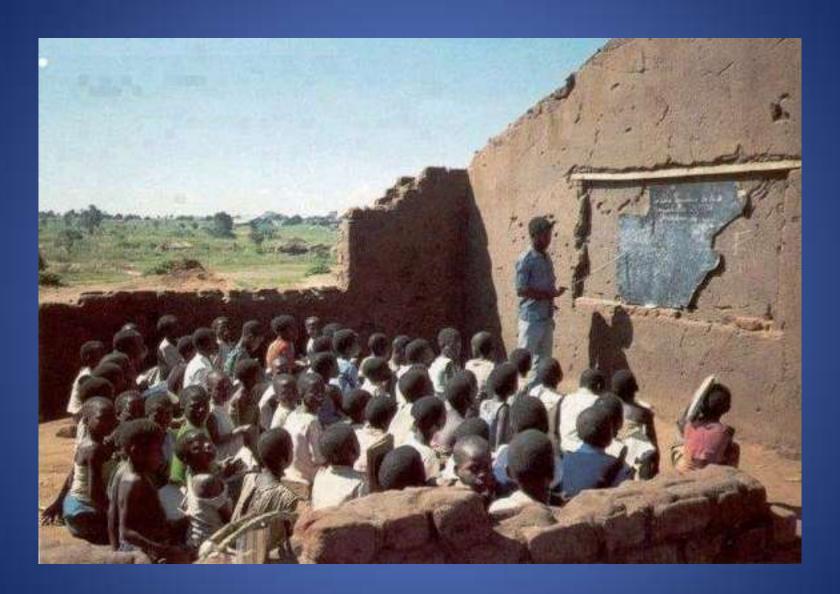
Driven by Policy, Climate Disruption, Economic Opportunity, and the Ecological Undermining of World Agriculture.

CLIMATE DISRUPTION

2012 – WORST YEAR FOR FOREST FIRES IN THE STATE'S HISTORY

2013 – WORST SINGLE FOREST FIRE IN THE STATE'S HISTORY

2013 – 1,000 YEAR FLOOD



Somalia



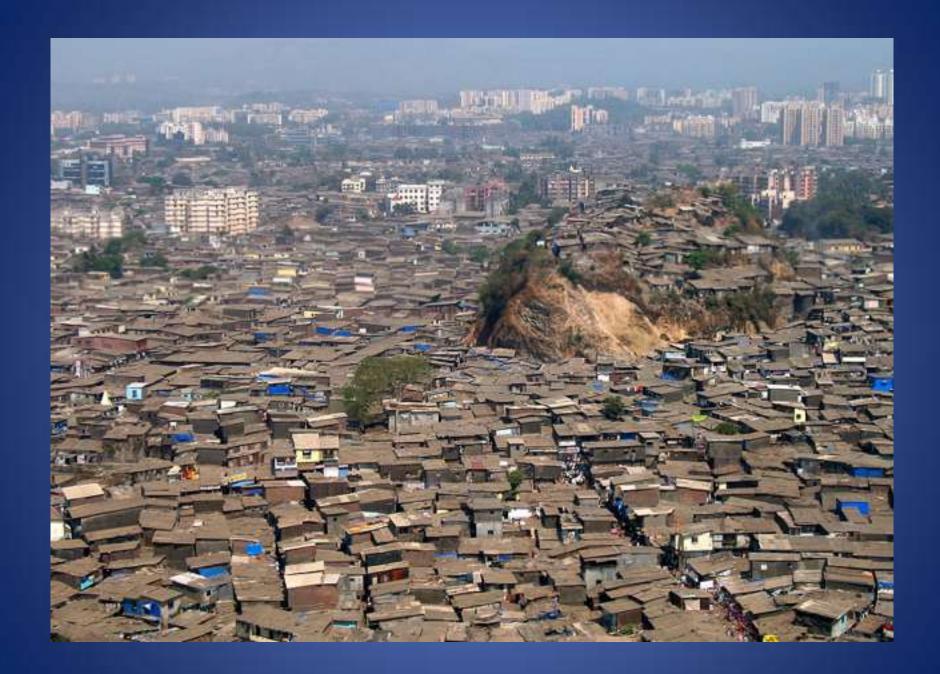
The Great Urban Migration Requiring massive investments in energy efficiency, energy sources, water infrastructure, sustainable materials, and healthy food.

Sao Paulo, from one Direction



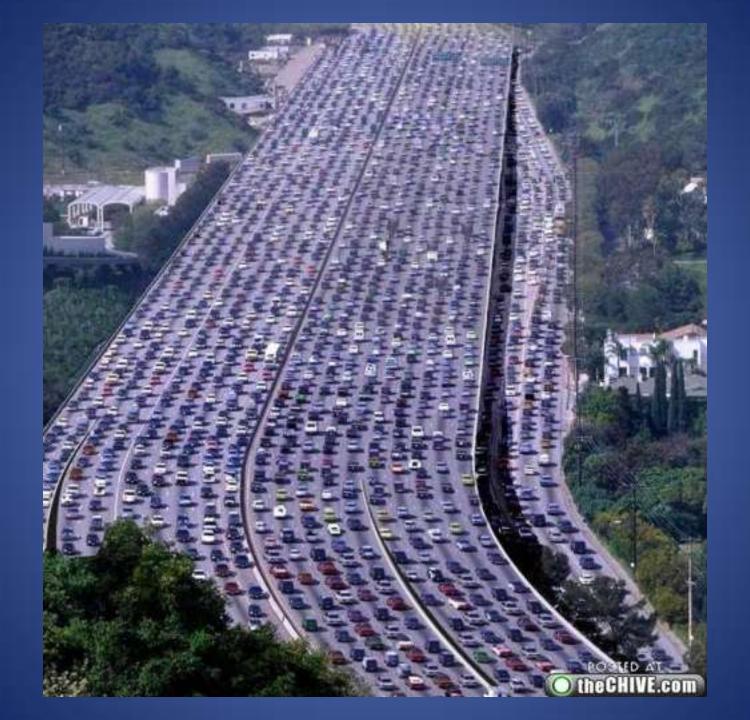
Sao Paulo: from Another Direction





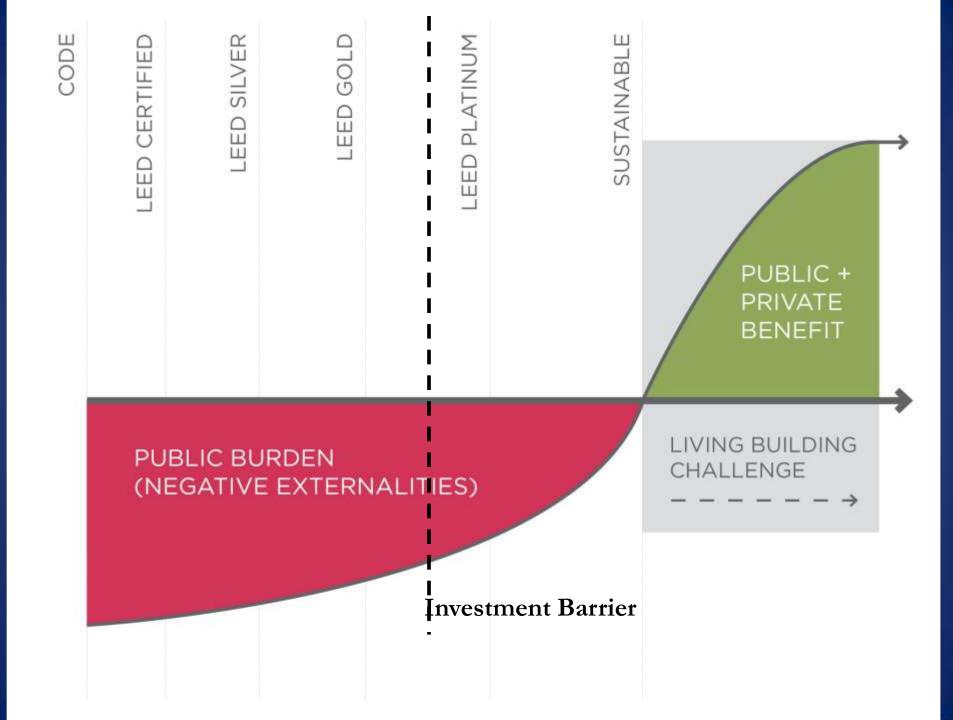


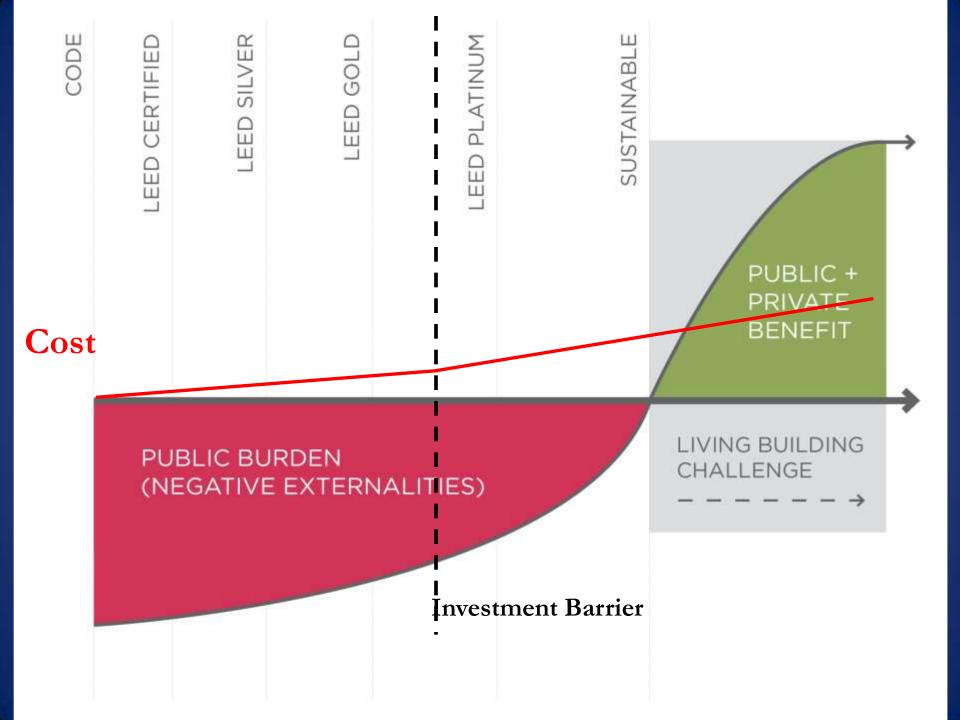


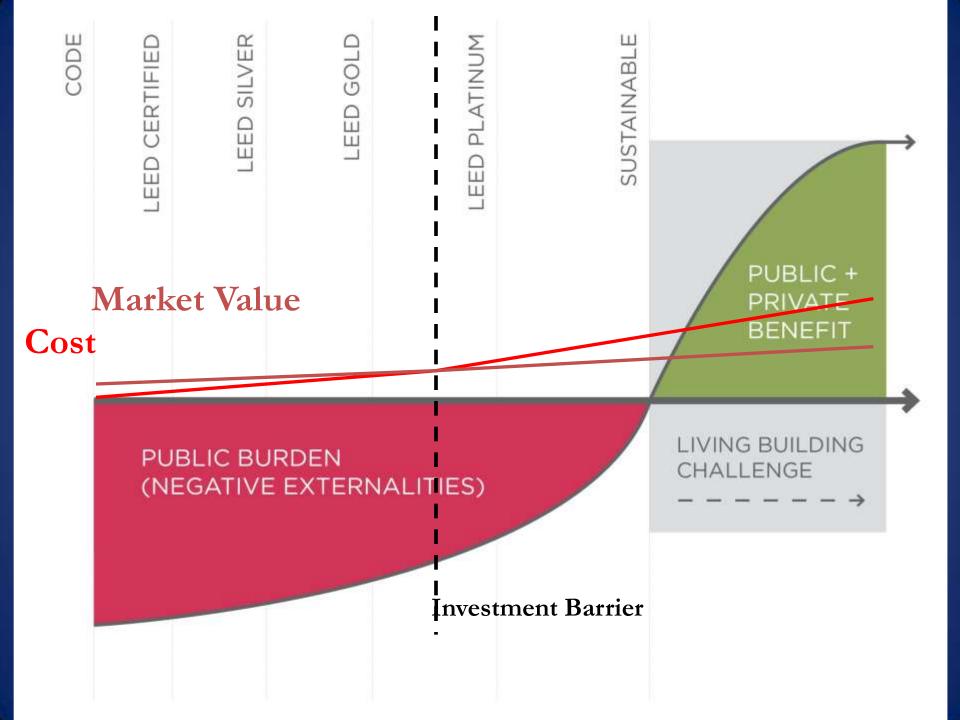


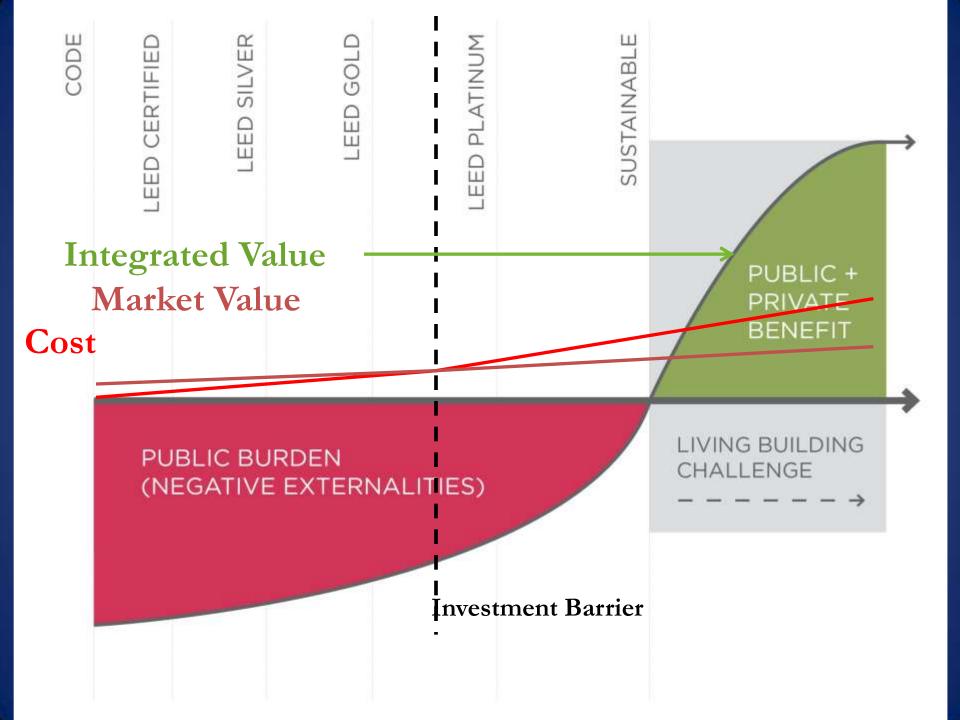
Cities should be healthy ecosystems, designed on the basis of 200,000 years of Darwinian beta testing, using the fruits of modern science and technology to promote the well-being of people.

Cities should consist of "living buildings" inside vibrant neighborhoods









PERFORMANCE





LIVING BUILDING CHALLENGE™ 2.0

A VISIONARY PATH TO A RESTORATIVE FUTURE

www.ilbi.org

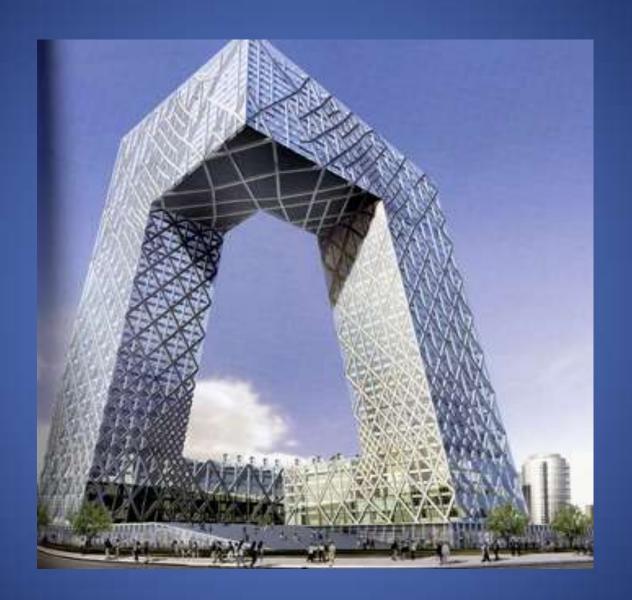




FIRSTS

- First six-story building in the United States to be truly energy-neutral from sunbeams hitting its own roof.
- Most energy efficient office building in America.
- First public office building in the United States to use rain water for potable drinking water, showers, etc.
- First office building in an American city to infiltrate all its treated gray water into the soil on site.
- First commercial structure in the United States to achieve "project certification" from the Forest Stewardship Council.
- First six-story building in the world to use composting toilets.
- First large commercial structure in the world to attempt to meet the Living Building Challenge.







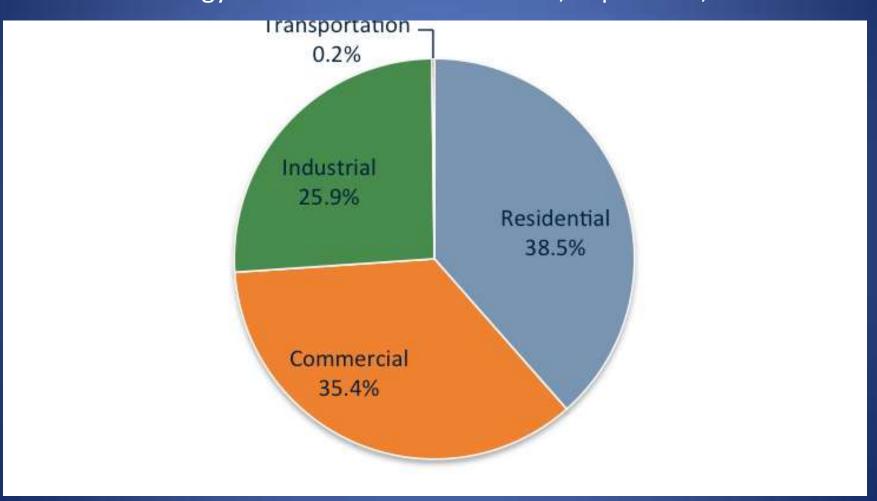




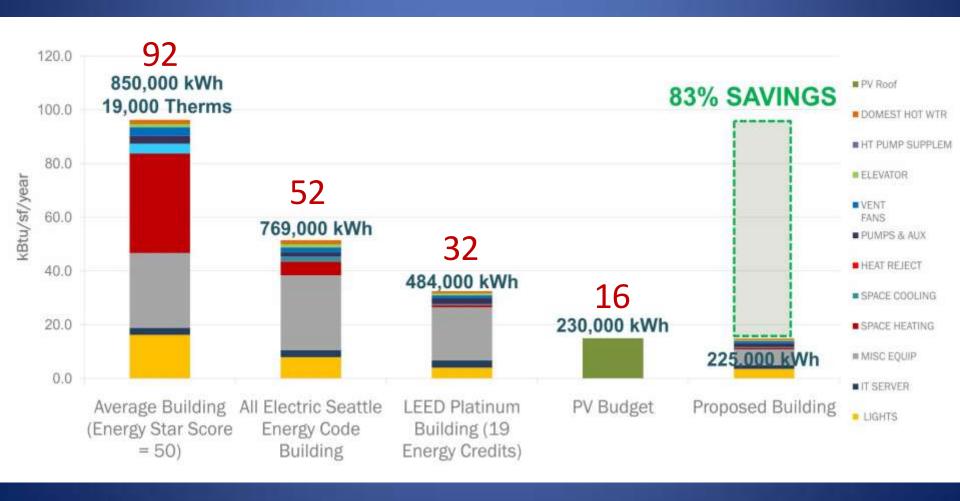
Ultra-Efficiency: Job # 1

U.S. Electricity Consumption by Sector Buildings = 74 Percent

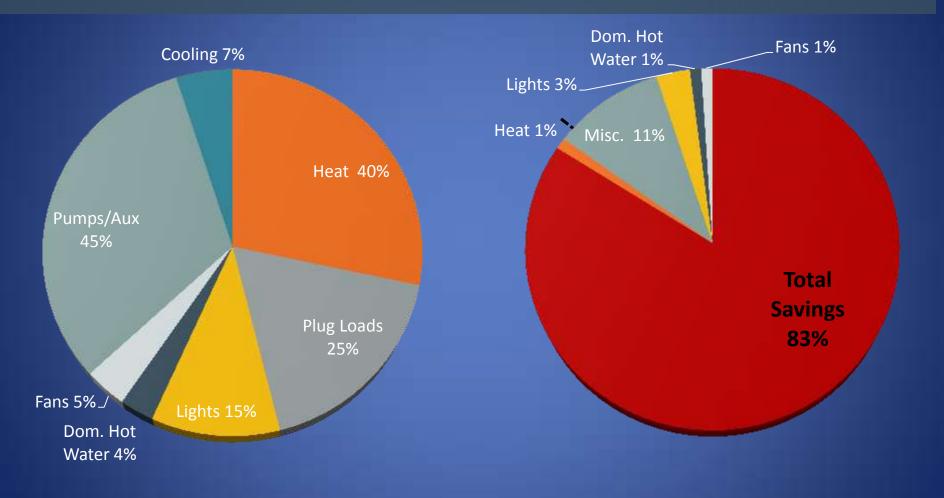
U.S. Energy Information Administration, September, 2012



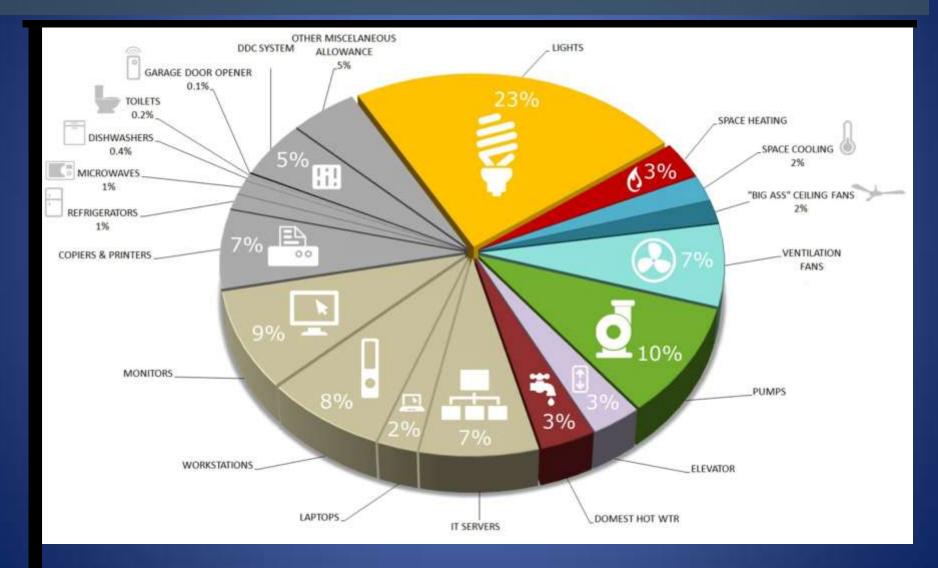
Energy Use + Solar Budget



Energy Consumption



Proposed Building Energy Use

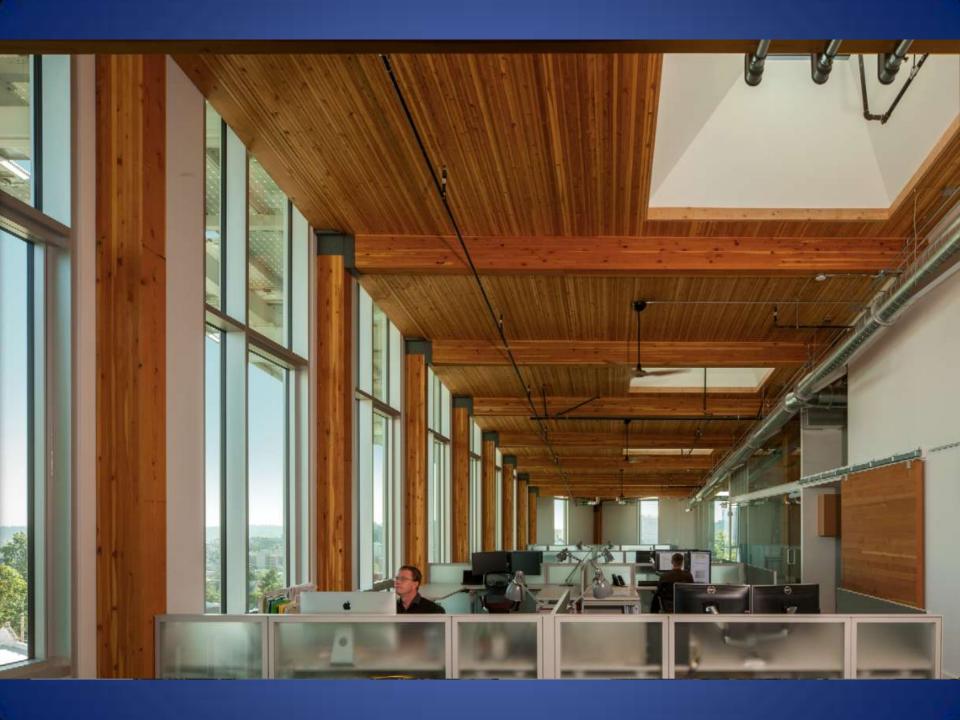


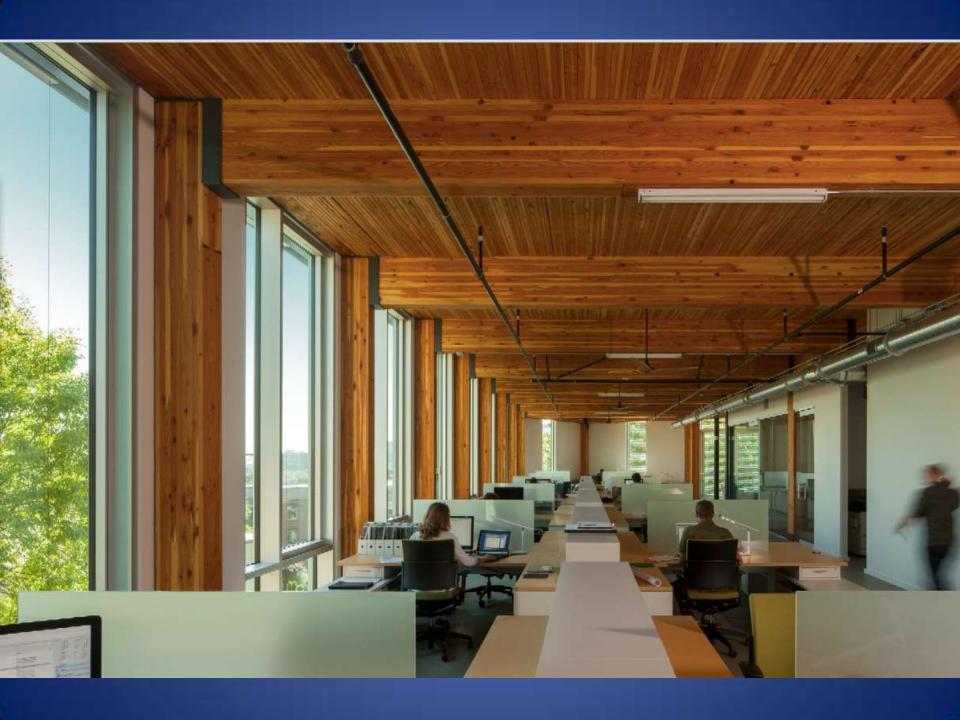


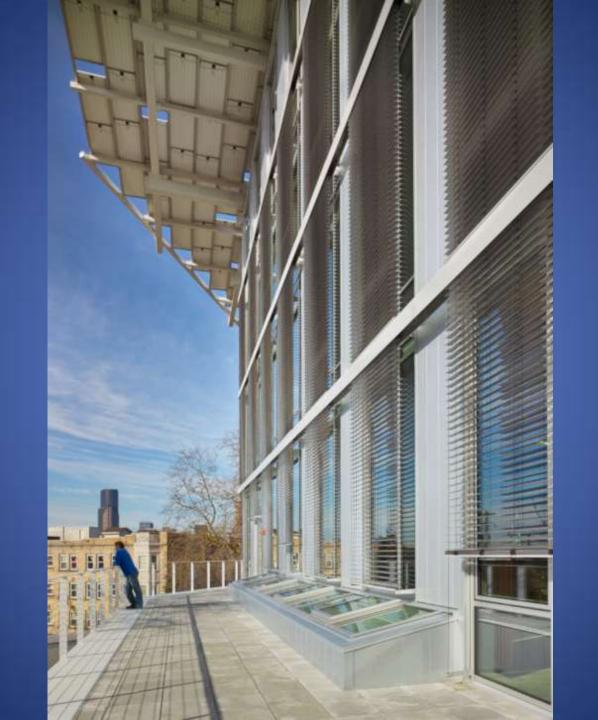
2011-7.19_0005

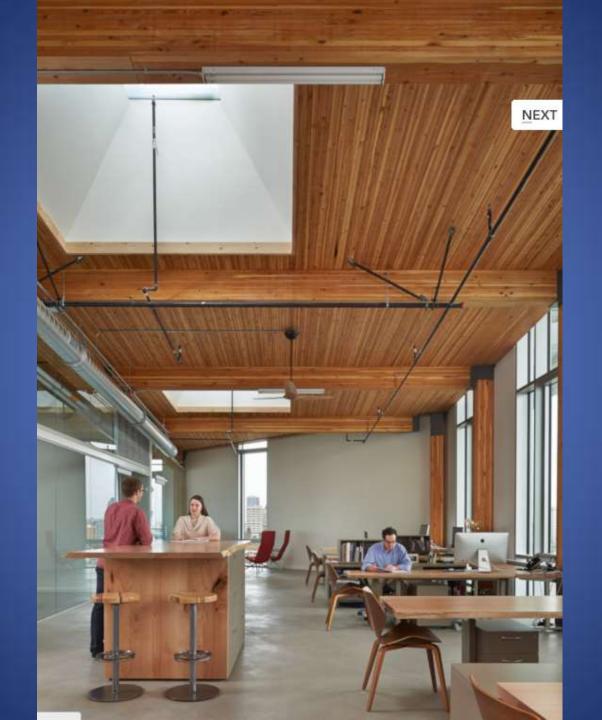
Weather station at SW corner of Pearl Apts

photo: John Stamets















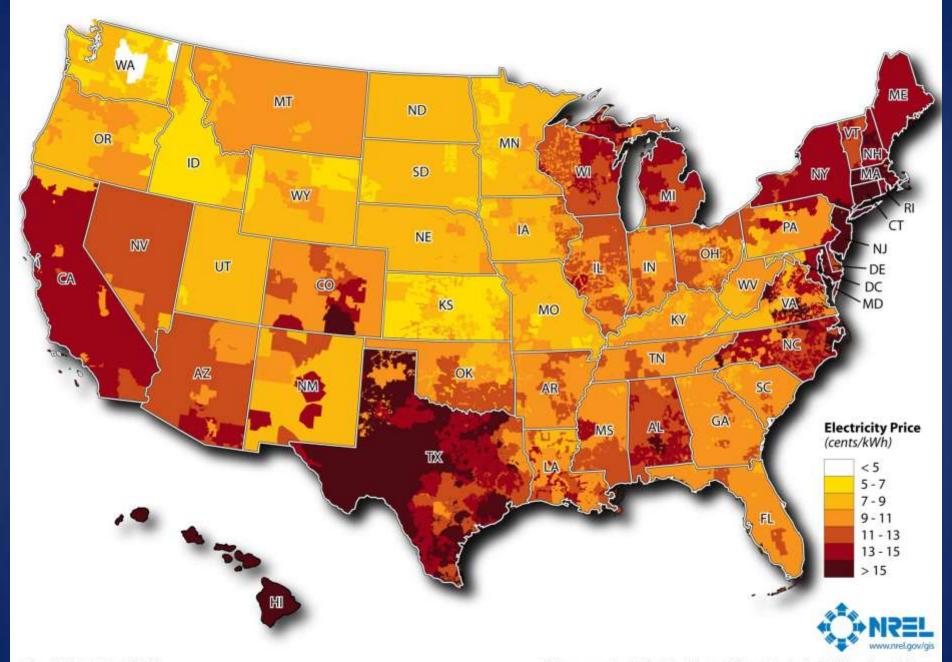


Retrofit Existing Buildings

- Energy RM
- Equilibrium Portfolio Company
- Pilot Project with Bullitt Center in Seattle
- Selling Metered Saved Negawatt-Hours to the Utility on a 20-year contract.
- Power Purchase Agreement for saved energy
- Serves the interests of (1) the utility; (2) all of its ratepayers; (3) the building owner; (4) Energy Efficiency Investors. NO LOSERS.

Sunbeams in Seattle?

United States Photovoltaic Solar Resource : Flat Plate Tilted at Latitude kWhim²/Day



Sunpower 425W - SPR-425E-WHT-D

Number of modules	570
Unit Nom. Power	425 W
Peak System Output	242 kW
Produced Energy	230,000 KWH/yr
Panel Efficiency (STC)	19.7%



230,000 KWH/Year

For a 50,000 sq ft building, this equals an EUI of 16









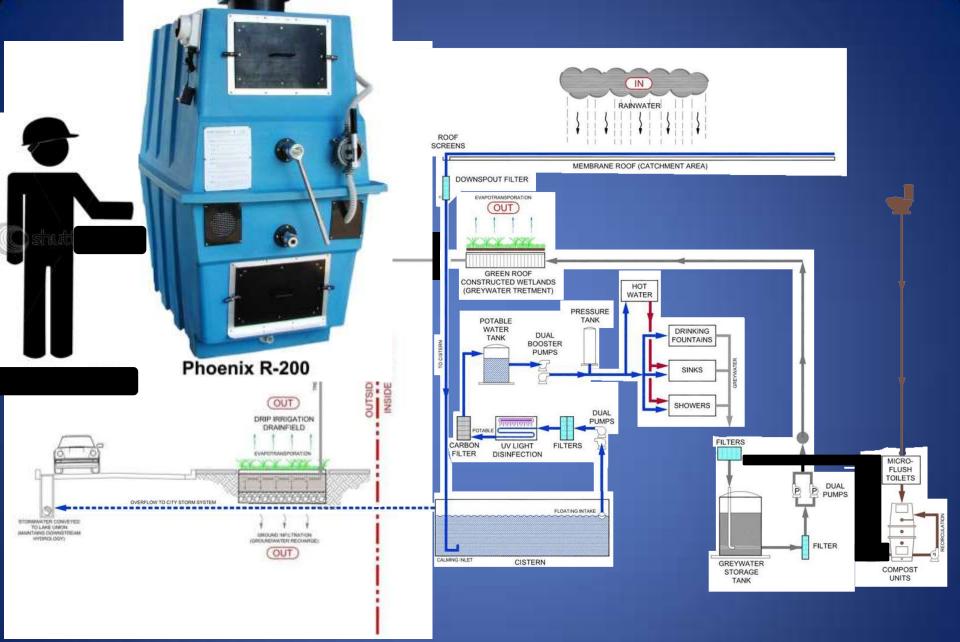
2012-7.28_0274

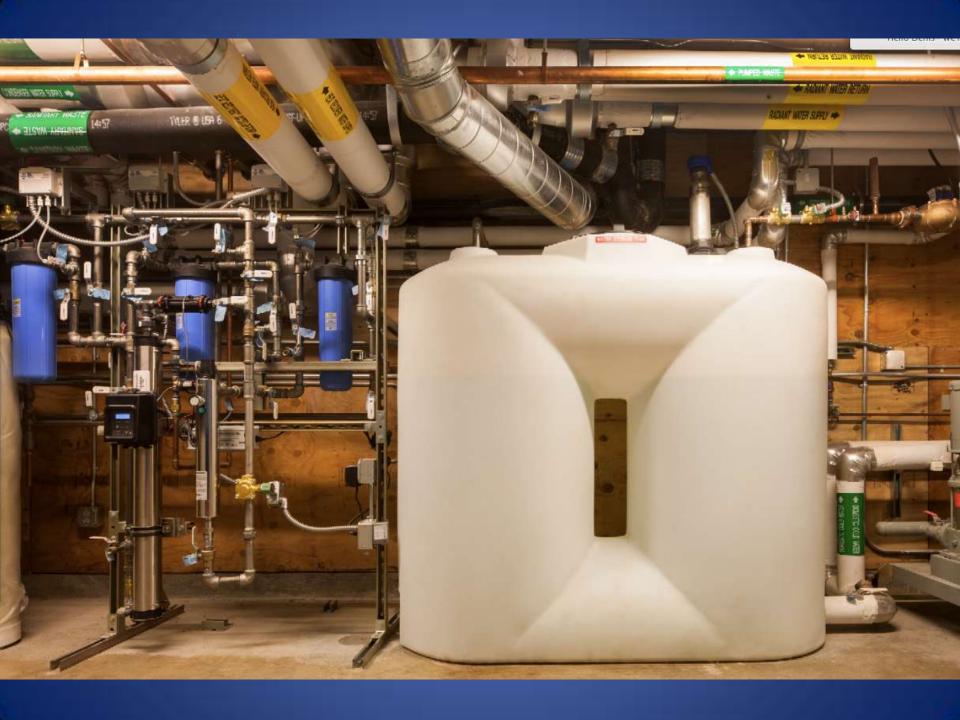
Connector walks back to building after bolting together the far tip.

photo: John Stamets

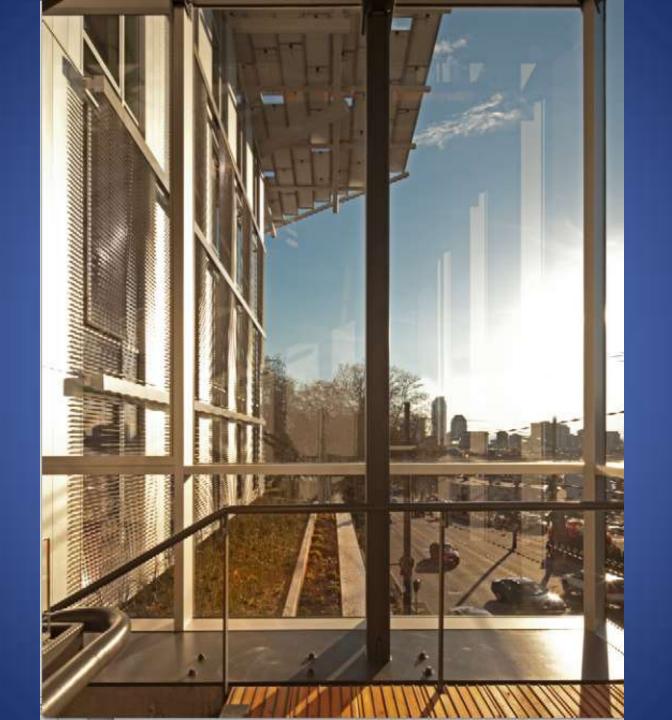




















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(1,2-BENZENEDICARBOXYLATO/2-VIDIOXOTRILEAD ICAS RN: 69011-06-91
                                                                     PENTACHI OROTRIFI HOROPROPANE (CEC-213 ISOMER) ICAS RN: 134237-
1.3-BENZENEDIOL. 2.4.6-TRINITRO-. LEAD SALT ICAS RN: 15245-44-01
                                                                     PENTACHI OROTRIEI LIOROPROPANE (CEC-213) ICAS RN: 2354-06-61
CHROMIUM LEAD SILICATE [CAS RN: 11113-70-5]
                                                                     TETRACHI OROTETRAFI I IOROPROPANE (CEC-214) ICAS RN: 29255-31-01
                                                                     TRICHLOROFI LIOROMETHANE (CEC-11) ICAS RN: 75-89-41
CYCLO-DI-:-OXO(:-PHTHALATO)TRILEAD [CAS RN: 17976-43-1]
                                                                     TRICHI OROPENTAFI LIOROPROPANE (CEC-215) ICAS RN-4259-43-21
LEAD ICAS RN: 7439-92-11
                                                                     TRICHI OROTRIEI LIOROFTHANE (CEC-113 ISOMERI ICAS EN-354-58-5)
LEAD ACETATE [CAS RN: 301-04-2]
                                                                     4-TOLUENESULFONAMIDE FORMALDEHYDE ICAS RN: 1338-51-81
LEAD ACETATE, TRIHYDRATE [CAS RN: 6080-56-4]
                                                                     AMMONIA-UREA-FORMALDEHYDE ICAS RN: 27967-29-91
LEAD ARSENATE [CAS RN: 7784-40-9]
                                                                     BENZENESULFONIC ACID. 4-HYDROXY-, POLYMER WITH FORMALDEHYDE
LEAD ARSENITE [CAS RN: 10031-13-7]
                                                                     BUTYLATED POLYOXYMETHYLENE UREA ICAS RN: 68002-19-71
LEAD AZIDE [CAS RN: 13424-46-9]
                                                                     CRESOL FORMALDEHYDE ICAS RN: 68003-26-81
LEAD CARBONATE JCAS RN: 598-63-0)
                                                                     FORMALDEHYDE ICAS RN: 50-00-01
LEAD CHLORIDE [CAS RN: 7758-95-4]
                                                                     FORMALDEHYDE CYANOHYDRIN ICAS RN: 107-16-41
LEAD CHROMATE [CAS RN: 7758-97-6]
                                                                     FORMALDEHYDE, COMPD WITH MONOSODIUM SULFITE (1:1) ICAS RN: 87)
LEAD CHROMATE MOLYBDATE SULFATE RED (CAS RN: 12656-65-8)
                                                                     FORMALDEHYDE. MELAMINE POLYMER, METHYLATED ICAS RN: 68002-20
LEAD DIOXIDE [CAS RN: 1309-60-0]
                                                                     FORMALDEHYDE, POLYMER WITH 4-(1,1-DIMETHYLETHYLIPHENOL, METH
                                                                     FORMALDEHYDE, POLYMER WITH PHENOL, POTASSIUM SALT ICAS RN: 12
LEAD FLUOBORATE [CAS RN: 13814-96-5]
                                                                     FORMALDEHYDE. POLYMERS WITH ISOBUTYLENATED PHENOL ICAS RN: I
LEAD FLUORIDE [CAS RN: 7783-46-2]
                                                                     FORMALDEHYDE, UREA ADDUCT ICAS RN: 68611-64-31
LEAD FLUOROSILICATE ICAS RN: 25808-74-61
                                                                     MELAMINE FORMAL DEHYDE ICAS RN: 9003-08-11
LEAD IODIDE [CAS RN: 10101-63-0]
                                                                     MELAMINE FORMALDEHYDE ICAS RN: 94645-56-41
LEAD NITRATE, CRYSTAL [CAS RN: 10099-74-8]
                                                                     MELAMINE-UREA
                                                                                            DEHYDE (MUF) ICAS RN: 250
LEAD OXIDE (LITHARGE) [CAS RN: 1317-36-8]
                                                                     NAPHTHAL
                                                                                                 FORMALDEHYDE B
LEAD OXIDE, RED [CAS RN: 1314-41-6]
                                                                                                   DRMALDEHYDI
                                                                     NAPHTH
                                                                                     LFON
LEAD PHOSPHATE [CAS RN: 7446-27-7]
                                                                     NAPHT
                                                                                  SULFONIC /
                                                                                                   OLYMER WITH
LEAD SILICATE [CAS RN: 11120-22-2]
                                                                     O-CRI
                                                                                DRMALDEHYDE
                                                                                                    ICAS RN:
LEAD STEARATE [CAS RN: 7428-48-0]
                                                                               YLPHENOL FOR
                                                                                                    HYDE ICAS
                                                                     P-TER
LEAD SUB-ACETATE ICAS RN: 1335-32-61
                                                                     PARAFORMALDEHYDE ICAS,
                                                                                                    525-89-41
LEAD SUB-CARBONATE ICAS RN: 1319-46-61
                                                                     PHENOL FORMALDEHYDEJ
                                                                                                    9003-35
LEAD SULFIDE ICAS RN: 1314-87-0
                                                                     PHENOL FORMALDEN
                                                                                                  HER HEYAL
LEAD SULFOCHROMATE YELLOW (C.I. PIGMENT YELLOW 34) ICAS RN: 134
                                                                     PHENOL-RESORQ
                                                                                              ALDEHYDE RE
LEAD SULPHATE ICAS RN: 7446-14-21
                                                                     RESORCINOL FOR
                                                                                                   AS RN: 24
LEAD TETRAACETATE ICAS RN: 546-67-81
                                                                     ROSIN, FORMALDEHYDE, F
                                                                                                    ACID P
LEAD THIOCYANATE ICAS RN: 592-87-01
                                                                                                     CID PO
                                                                     ROSIN, FORMALDEHYDE, FUN
                                                                     SODIUM POLYNAPTHALENESU
                                                                                                     TE ICA
LEADIII METHANESULPHONATE ICAS RN: 17570-76-21
LEAD. ISOTOPE OF MASS 214 ICAS RN: 15067-28-41
                                                                     TOLUENESLILFONAMIDE FORM
                                                                                                      YDER
                                                                               NDED PHENOL-MEL
LEAD-210 ICAS RN: 14255-04-01
                                                                     URE
                                                                                                      FORM
TETRAETHYL LEAD ICAS RN: 78-00-21
                                                                     LIREA
                                                                                ALDEHYDE ICAS I
                                                                                                      1-05-61
TETRAMETHYL LEAD ICAS RN: 75-74-11
                                                                     LIREA
                                                                                  FORMAL DEH
                                                                                                     S PN- 251
1.1.1.2-TETRACHLOR-2.2-DIFLUOROETHANE (CFC-112A) ICAS RN: 76-11-9
                                                                     XYLENE
                                                                                                    26139-75-3
1.1.1.2-TETRAFLUORO-2,2-DICHLOROETHANE (CFC-114A) ICAS RN: 374-07
                                                                     CADMILIM
1.1.1.3-Tetrachioro-2.2.3.3-tetrafluoropropane (CFC-214cb) ICAS RN: 2268-46
                                                                     CADMILIM 9-FTRY-WWW.DATF ICAS RN- 9490-98-40
1.1.2.2-TETRACHLORO-1.2-DIFLIOROETHANE (CFC-112) ICAS RN: 76-12-01
                                                                     CADMILIM ACETATE ICAS RN: 543-90-81
1.1.2-TRICHLOROTRIFLUOROETHANE (CFC-113) (CAS RN: 76-13-1)
                                                                     CADMILIM ACETATE DIHYDRATE ICAS RN- 5743-04-43
1.1.3-Trichlom-1.2.2.3.3-pertaffuomompane (CFC-215) ICAS RN: 1852-81-91
                                                                     CADMILIM DECMINE ICAS DN- 7780-49-81
2-Chloro-1.1.1.2.3.3.3-heotafluoropropane (CFC-217ba) ICAS RN: 76-18-61
                                                                     CADMILIM CARRONATE ICAS BN: 513-78-01
PROMOCHI ORODIFI LIOROMETHANE (CEC-12R1) ICAS RN-353-59-31
                                                                     CADMILIM CHI ORIDE 2 5 HYDRATE ICAS RN: 7790-78-51
PROMOTRIELLIOROMETHANE (CEC-13R1) (CAS RN-75-(3-8)
                                                                     CADMILIM CHI ORIDE ANHYDROLIS ICAS RN-10108-84-91
CHI OROHEPTAFI LIOROPROPANE (CEC-217) ICAS RN- 422-86-81
                                                                     CADMILIM CYANIDE ICAS DN-542-83-40
CHI OROPENTARI LIOROFTHANE (CEC-116) (CAS RN-76-16-8)
                                                                     CADMIL
CHI OROTRIEI LIOROMETHANE (CEC-13) ICAS RN: 75-72-91
DICHLORODIFI LIOROMETHANE (CEC-12) ICAS EN: 75-71-81
DICHLOROHEXAELLIOROPROPANE (CEC-216) ICAS RN- 661-97-21
DICHLOROTETRAFI LIOROFTHANE (CFC-114) ICAS RN-76-14-21
HEPTACHI OROFI LIOROPROPANE (CEC-211) ICAS RN- 422-78-81
HEXACHI ORODIFI LIOROPROPANE (CEC-212) ICAS RN-3182-26-11
PENTACHI OROFI LIOROFTHANE (CEC-111) (CAS RN-354-56-3)
                                                                     CADMILIM SUI FATE HYDRATE ICAS RN: 7790-84-30
PENTACHLOROFI LIOROFTHANE (CEC-111) ICAS RN-354-58-31
                                                                     CADMIUM SULFIDE ICAS RN: 1306-23-61
PENTACHI OROTRIFI LIOROPROPANE (CEC-213 ISOMERI ICAS RN: 134237-
                                                                     ALPHA-HEXABROMOCYCLODODECANE (a-HBCD) (CAS RN: 134237-50-6)
PENTACHI OROTRIEI LIOROPROPANE (CEC-213 ISOMER) ICAS RN: 134237-
                                                                     BIS(2-ETHYL-1-HEXYL)TETRABROMOPHTHALATE (TBPH) ICAS RN: 26040-6
PENTACHI OROTRIEI LIOROPROPANE (CEC-213) ICAS EN: 2354-06-63
                                                                     BIS(2-HYDROXYETHYL ETHER) (TBBPA)) ICAS RN: 4162-45-21
TETRACHI OROTETRAFI LIOROPROPANE (CEC.-214) (CAS RN: 292/5-31-0)
                                                                     ETHYLENE BIS/TETPABROMOPHTHALIMIDE) ICAS RN: 32588-76-41
TRICHLOROFI LIOROMETHANE (CEC-11) ICAS RN-75-89-41
                                                                     1.2-BENZENEDICARBOXYLIC ACID. 3.4.5.6-TETRABROMO-. MIXED ESTERS
TRICHLOROPENTAFI LIOROPROPANE (CEC-215) ICAS RN-4259-43-21
                                                                     1.2-BIS(2.4.6-TRIBROMOPHENOXY)ETHANE (BTBPE)) ICAS RN: 37853-59-11
TRICHI OROTRIFI LIOROFTHANE (CEC. 113 ISOMERI ICAS RN: 354-58-51
                                                                     2.2'.3.3'.4.5'.6-HEPTABROMODIPHENYL ETHER (BDE-175) ICAS RN: 446255
4-TOLUENESULFONAMIDE FORMALDEHYDE ICAS RN: 1338-51-61
                                                                     2.2'.3.4'.5.6'-HEPTABROMODIPHENYL ETHER (BDE-183) ICAS RN: 189084-6
AMMONIA-UREA-FORMALDEHYDE ICAS RN: 27967-29-91
                                                                     2.21.3.4.41.51.6-HEPTABROMODIPHENYL ETHER (OCTABDE BDE-183) ICAS F
BENZENESULFONIC ACID. 4-HYDROXY-, POLYMER WITH FORMALDEHYDE
                                                                     2.2'.3.4.4'-PENTABROMODIPHENYL ETHER (BDE 85) ICAS RN: 182346-21-0'
BUTYLATED POLYOXYMETHYLENE UREA ICAS RN: 68002-19-71
                                                                     2.2".4.4".5.5"-HEXABROMODIPHENYL ETHER (BDE-153) ICAS RN: 68631-49-
CRESOL FORMALDEHYDE ICAS RN: 68003-26-91
                                                                     2.2".4.4".5.6"-HEXABROMODIPHENYL ETHER (BDE-154) ICAS RN: 207122-15
FORMALDEHYDE ICAS RN: 50-00-01
                                                                     2.21.4.41.5-PENTABROMODIPHENYL ETHER (BDE-99) ICAS RN: 60348-60-91
FORMALDEHYDE CYANOHYDRIN ICAS RN: 107-16-41
                                                                     2.2'.4.4'.6-PENTABROMODIPHENYL ETHER (BDE-100) ICAS RN: 189084-64-
FORMALDEHYDE, COMPD WITH MONOSODIUM SULFITE (1:1) ICAS RN: 87
                                                                     2.2'.4.4'-TETRABROMODIPHENYL ETHER (BDE-47) ICAS RN: 5436-43-11
FORMALDEHYDE. MELAMINE POLYMER. METHYLATED ICAS RN: 68002-20
                                                                     2.2"-I/1-METHYLETHYLIDENEIBISI(2.6-DIBROMO-4.1-PHENYLENE) ICAS RN
FORMALDEHYDE, POLYMER WITH 4-(1,1-DIMETHYLETHYLYPHENOL, METH
                                                                     2.3-DIBROMOPROPYL-2.4.6-TRIBROMOPHENYL ETHER (DPTE) ICAS RN: 3
FORMALDEHYDE, POLYMER WITH PHENOL, POTASSIUM SALT ICAS RN: 12
                                                                     2.3-DIRROMOPROPYI -2.4.6-TRIRROMOPHENYI FTHER (DPTE) ICAS RN-3.
FORMALDEHYDE. POLYMERS WITH ISOBUTYLENATED PHENOL ICAS RN: I
                                                                    2.4.4"-TRIRROMODIPHENYL FTHER (RDE-28) ICAS RN-41318-75-60
FORMALDEHYDE, UREA ADDUCT ICAS RN: 68611-64-31
                                                                     2.4 5.2" 4" FC-HEXARROMORIPHENYLICAS RN-59080-40-91
MELAMINE FORMALDEHYDE ICAS RN: 9003-08-11
                                                                     2.4.5.2" 4" 5"-HEXARROMORIPHENYL (CAS RN-59080-40-9)
MELAMINE FORMALDEHYDE ICAS RN: 94645-56-41
                                                                     2.4 S-TRIBROMOPHENOLICAS RN: 118-79-60
MELAMINE-UREA-FORMALDEHYDE (MUF) ICAS RN: 25036-13-91
                                                                     2.4 6-TRIBROMOPHENYL TERMINATED CARRONATE OLIGOMER ICAS RN-
NAPHTHALENESULFONIC ACID. FORMALDEHYDE POLYMER, AMMONIUM
                                                                     2-FTHYLHEXYL-2-3-4-5-TETRARROMORENZOATE (TRRLICAS RN-18968-2
NAPHTHALENESULFONIC ACID. FORMALDEHYDE POLYMER, CALCIUM SA
                                                                     2-HYDROXY-PROPYL-2-I2-HYDROXY-FTHOXY-FTHYL-TRP ICAS RN-206W
NAPHTHALENESULFONIC ACID. POLYMER WITH FORMALDEHYDE. POTAS.
                                                                     RENZENE ETHENYL - HOMOPOLYMER RROMINATED ICAS RN-88497-56-
O-CRESOL FORMALDEHYDE EPOXY ICAS RN: 29690-82-21
                                                                     BETA-HEXABROMOCYCLODODECANE (8-HBCD) ICAS RN: 134237-51-71
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DICHLOROPENTAFILIOROPROPANE (HCFC-225CA) ICAS HN: 422-56-01
DICHLOROPENTAFLIJOROPROPANE (HCFC-225CB) ICAS RN: 507-55-11
DICHLOROTETRAFLUOROPROPANE (HCFC-234) ICAS RN: 425-94-61
 Dichlorotetrafluoroorooane (HCFC-234) ICAS RN: 127564-83-41
 DICHLOROTRIELLIOROFTHANE (HCEC-123) (CAS RN-306-83-3)
DICHLOROTRIFLUOROPROPANE (HCFC-243) ICAS RN: 460-69-51
Dichiorotrifluoropropage (HCFC-243) ICAS RN: 116890-51-8I
 HEXACHLOROFLUOROPROPANE (HCFC-221) ICAS RN: 422-26-41
 MONOCHLORODIFLUOROETHANE (HCFC-142B) (CAS RN: 75-68-3)
 MONOCHLORODIFLUOROPROPANE (HCFC-262) ICAS RN: 421-02-031
 MONOCHLOROFLUOROMETHANE (HCFC-31) ICAS RN: 593-70-41
 MONOCHLOROFLUOROPROPANE (HCFC-271) ICAS RN: 430-55-71
 MONOCHLOROHEXAFLUOROPROPANE (HCFC-226) ICAS RN: 431-87-81
 MONOCHLOROPENTAFLLIOROPROPANE (HCFC-235) ICAS RN: 460-92-41
 MONOCHI OROTETRAFI LIOROFTHANE (HCEC-124) ICAS RN-2837-89-01
 MONOCHLOROTETRAFLUOROPROPANE (HCFC-244) ICAS RN: 134190-50-
 MONOCHLOROTETRAFLUOROPROPANE (HCFC-251) ICAS RN: 421-41-01.
 MONOCHLOROTRIFLUOROETHANE (HCFC-133A) ICAS RN: 75-88-71
 MONOCHLOROTRIFLUOROPROPANE (HCFC-253B) ICAS RN: 480-35-51
PENTACHLORODIFLUOROPROPANE (HCFC-222) ICAS RN: 422-49-11
 PENTACHLOROFLUOROPROPANE (HCFC-231) ICAS RN: 421-94-31
 TETRACHLORODIFLUOROPROPANE (HCFC-232) ICAS RN: 460-89-91
 TETRACHLO
                            E (HCFC-121) ICAS RN: 354-14-31
TETRACH
                               (HCFC-241) ICAS RN: 666-27-31
 Tetrachia
               ropane (Hit
                                ICAS RN: 134190-49-11
 TETRA
             DTRIFLUOROP
                                  64CEC-223) ICAS RN: 422-52-81
            IFLUOROETHANE
                                  -122) ICAS RN: 354-21-21
 TRICH
           DIFLUOROPROPAN
                                  C-242) ICAS RN: 460-63-91
 TRICH
 Trichlorodifiuoropropane (HCFC)
                                  AS RN: 127564-90-31
 TRICHLOROFLUOROETHANE
                                 131) ICAS RN: 359-28-41
 Trichloroffuoropropane (HCFQ
                                AS RN: 134190-51-51
 TRICHLOROTETRAFLUOR
                               NE (HCFC-224) ICAS RN: 422-54-81
TRICHI OBOTRIEI LIORG
                             F (HCEC-230) ICAS RN-7125-84-01
                          CHI ORIDE ICAS RN- 123-88-61
 2-METHOXYETHYLM
 DIMERCHRY DICK
                        CAS BN- 10112-01-11
 DIMERCHAY D
                      CIXIDE ICAS EN- 1335-31-51
 DIMETHY
                   ICAS RN- 593-74-81
                 PHOSPHATE ICAS RN- 9935-95-81
 ETHYLMI
 ETHY!
               VICAS RN- 897-44-11
FILL M
                                  1184-57-91
 A. RECE
 MERCURIC PROMIDE ICAS RN: 7789-47-11
 MERCHBIC CHI ORIDE (HGC) 2) ICAS RN: 7487-94-71
 MERCURIC CYANIDE ICAS RN- 502-04-11
 MERCLIRIC IODIDE RED ICAS RN: 7774-29-01
 MEDCLIDIC NITRATE ICAS DN: 10045-04-01
 MERCHRIC OXIDE ICAS RN: 21908-53-21
 MERCLIRIC SUI FATE ICAS RN: 7783-35-91
MERCHIBIC SHILFIDE ICAS RN: 1344-48-93
                   E. MONO
                             YDRA
                                   ICAS RN: 7782-86-71
MERCU
                   ICAS RN
                                0.62.53
                   LATE ICAS PINT
                   TED ICA
 METHOXYETHYLMERCURIC ACETATE ICAS RN: 151-38-21
 METHYL MERCURY (MEHG) ICAS RN: 22967-92-61
 METHYL MERCURY CHLORIDE ICAS RN: 115-09-31
 METHYLMERCURIC DICYANAMIDE ICAS RN: 502-39-61
PHENYL MERCURIC PROPIONATE ICAS RN: 103-27-51
 PHENYLMERCURIC ACETATE ICAS RN: 62-38-41
 PHENYLMERCURIC ACETATE ICAS RN: 62-38-41
 PHENYLMERCURIC BORATE ICAS RN: 31224-71-21
 PHENYLMERCURIC BORATE ICAS RN: 31224-71-21
 BUTYL BENZYL PHTHALATE (BBP) ICAS RN: 85-68-71
DI/2-ETHYLHEXYLIPHTHALATE (DEHP) ICAS RN: 117-81-71
DI-N-HEXYLPHTHALATE (DNHP) ICAS RN: 84-75-31
DI-N-OCTYL PHTHALATE (DNOP) ICAS RN: 117-84-01
DI-N-PENTYL PHTHALATE (DNPP) ICAS RN: 131-18-01
DIBUTYL PHTHALATE (DBP) ICAS RN: 84-74-21
 DISORUTYI PHTHAI ATE (DIRP) ICAS RN- 84-89-81
DIISODECYL PHTHALATE (DIDP) ICAS RN: 68515-49-11
DIISODECYL PHTHALATE (DIDP) ICAS RN: 26761-40-01
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 DIISONONYL PHTHALATE (DINP) ICAS RN: 28553-12-01
 COKE OVEN EMISSIONS ICAS RN: 8007-45-21
CREOSOTE ICAS RN: 8001-58-91
 CREOSOTE OIL ICAS RN: 61789-28-41
 CREOSOTE OIL ICAS RN: 70321-79-81
 CREOSOTE OIL, ACENAPHTHENE FRACTION ICAS RN: 90640-84-91
CREOSOTE OIL. ACENAPHTHENE FRACTION. ACENAPHTHENE-FREE ICAS
CRECOCITE OIL I OW-ROLLING DISTILLATE ICAS RN- 70321-80-11
 EXTRACT RESIDUES (COAL) CREOSOTE OIL ACID ICAS RN: 122384-77-41
RESIDUES (COAL TAR), CREOSOTE OIL DISTN, ICAS RN-92061-93-31
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POTASSIUM SA

POTASSIUM SALT

YDE RESINICAS R

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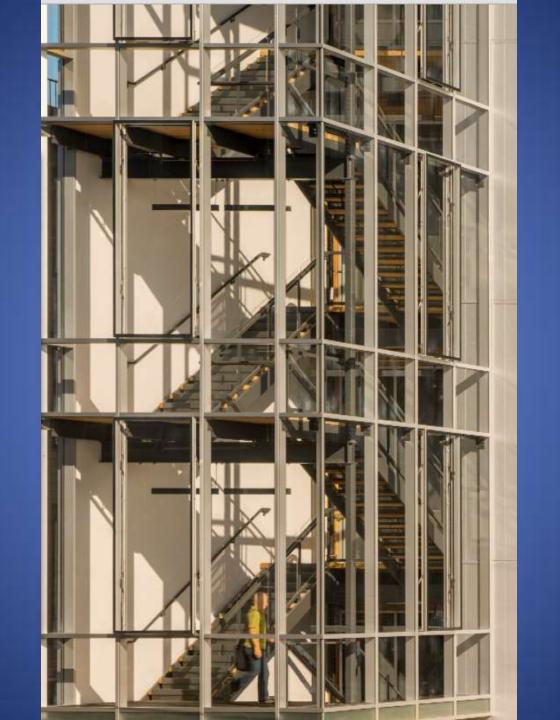
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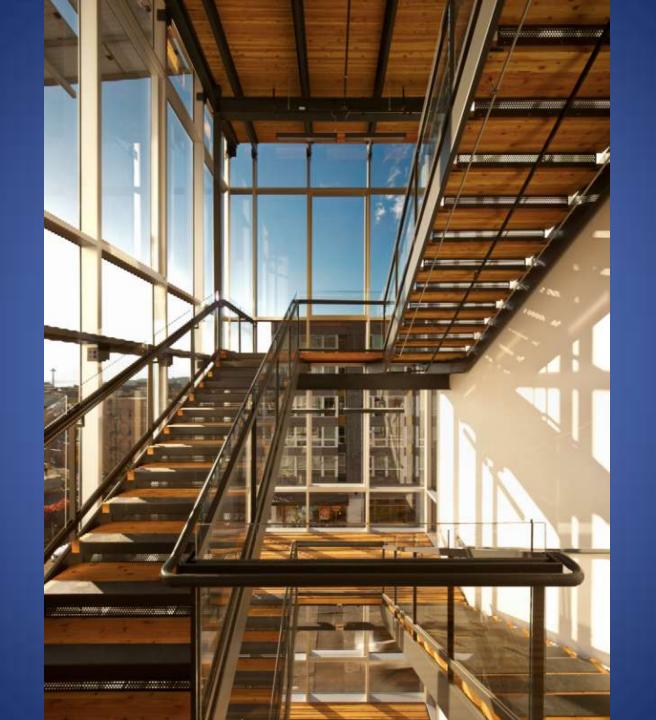
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MEDCLIDIC CYANIDE ICAS DN: 509-04-11
MERCLIRIC IODIDE RED ICAS RN-7774-29-01
MERCLIRIC NITRATE ICAS RN: 10045-94-01
MERCLIPIC OXIDE ICAS RN: 21908-53-21
MERCLIRIC SUI FATE ICAS RN- 7783-35-91
MERCLIRIC SUI FIDE ICAS RN- 1944-48-50.
MERCLIBOUS NITRATE ICAS RN- 10415-75-51
MERCUROUS NITRATE, MONOHYDRATE ICAS RN
MERCUROUS OXIDE ICAS RN: 15829-53-57
MERCURY THIOCYANATE ICAS RN: 582-85-81
MERCURY, AMMONIATED ICAS RN: 10124-48-81
MERCURY, ELEMENTAL ICAS RN: 7439-97-61
METHOXYETHYLMERCURIC ACETATE ICAS RN: 1
METHYL MERCURY (MEHG) ICAS RN: 22967-92-6
METHYL MERCURY CHLORIDE ICAS RN: 115-09-
METHYLMERCURIC DICYANAMIDE ICAS RN: 502-
PHENYL MERCURIC PROPIONATE ICAS RN: 103-
PHENYLMERCURIC ACETATE ICAS RN: 62-38-41
PHENYLMERCURIC ACETATE ICAS RN: 62-38-41
PHENYLMERCURIC BORATE ICAS RN: 31224-71-
PHENYLMERCURIC BORATE ICAS RN: 31224-71-
BUTYL BENZYL PHTHALATE (BBP) ICAS RN: 85-6
DI/2-ETHYLHEXYLIPHTHALATE (DEHP) ICAS RN: 1
DI-N-HEXYLPHTHALATE (DNHP) ICAS RN: 84-75-3
DI-N-OCTYL PHTHALATE (DNOP) ICAS RN: 117-84
DI-N-PENTYL PHTHALATE (DNPP) ICAS RN: 131-1
DIBUTYL PHTHALATE (DBP) (CAS RN: 84-74-2)
DIISOBUTYL PHTHALATE (DIBP) ICAS RN: 84-69-5
DIISODECYL PHTHALATE (DIDP) ICAS RN: 68515-
DIISODECYL PHTHALATE (DIDP) ICAS RN: 26761-
DISOHEPTYL PHTHALATE ICAS RN: 71888-89-61
DIISONONYL PHTHALATE (DINP) ICAS RN: 68515-
DIISONONYL PHTHALATE (DINP) ICAS RN: 28553-
COKE OVEN EMISSIONS ICAS RN: 8007-45-21
CREOSOTE ICAS RN: 8001-58-91
CREOSOTE OIL ICAS RN- 61789-28-40
CREOSOTE OIL ICAS RN: 70321-79-81
CREOSOTE OIL, ACENAPHTHENE FRACTION ICA
CREOSOTE OIL. ACENAPHTHENE FRACTION, AC
CREOSOTE OIL LOW-ROLLING DISTRILLATE ICAS
EXTRACT RESIDUES (COAL) CREOSOTE OIL ACII
RESIDUES (COAL TAR) CREOSOTE OIL DISTN (C
WOOD CREOSOTE ICAS RN- 8021-39-40
AMMONILIM COPPER ARSENATE ICAS RN-18109
ARSENAZO III ICAS RN- 1668-00-41
ARSENIC ICAS RN- 7740-38-51
ARSENIC (TRIVALENT) ICAS RN: 22589-72-81
ARSENIC ACID ICAS RN: 7778-39-41
ARSENIC DISHI FIDE ICAS RN: 1303-32-81
ARSENIC III ICAS RN- 99541-54-40
ARSENIC DENTOYIDE ICAS DN: 1202-28-21
ARSENIC TRICHI ORIDE ICAS RN: 7784-34-11
ARSENIC TRICKIDE ICAS RN- 1327-53-31
ARSENIC TRISHLEIDE ICAS RN: 1303-33-91
ARSENIC VICAS RN: 17428-41-01
CALCILIM ARSENATE PASHSON SCALICAS BN- 73
CALCILIM ARSENITE ICAS RN- 52740-16-61
COPPER ARSENATE ICAS RN: 10103-61-41
CUPRIC ACETOARSENITE ICAS RN: 12002-03-81
GALLIUM ARSENIDE ICAS RN: 1303-00-01
IMAZAPYR (ARSENAL) ICAS RN: 81334-34-11
LEAD ARSENATE ICAS RN: 7784-40-91
LEAD ARSENITE ICAS FIN: 10031-13-71
MAGNESIUM ARSENATE ICAS RN: 10103-50-11
POTASSIUM ARSENATE ICAS RN: 7784-41-01
POTASSIUM ARSENITE (ASH3O4.XK) ICAS RN: 10
SODIUM ARSENATE ICAS RN: 13464-38-57
SODIUM ARSENATE (ASH3O4,XNA) ICAS RN: 763
SODIUM ARSENITE ICAS RN: 7784-46-51
TRIETHYL ARSENATE ICAS RN: 15606-95-81
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ASBESTOS [1332-21-4]
CADMIUM (7440-43-9)
CHLORINATED POLYETHYLENE (CPE) (63231-66-3
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CHLOROSULFONATED POLYETHYLENE (HYPALO
CREOSOTE (8001-58-9)
FORMALDEHYDE I50-00-01
LEAD [7439-92-1]
MERCURY, ELEMENTAL 17439-97-61
NEOPRENE (9010-98-4)
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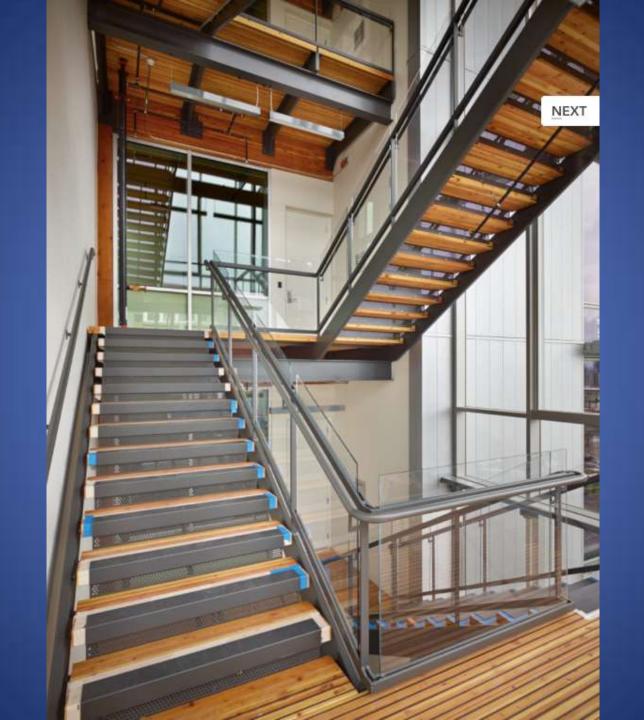
MERCLIRIC ACETATE ICAS RN- 1600-27-71

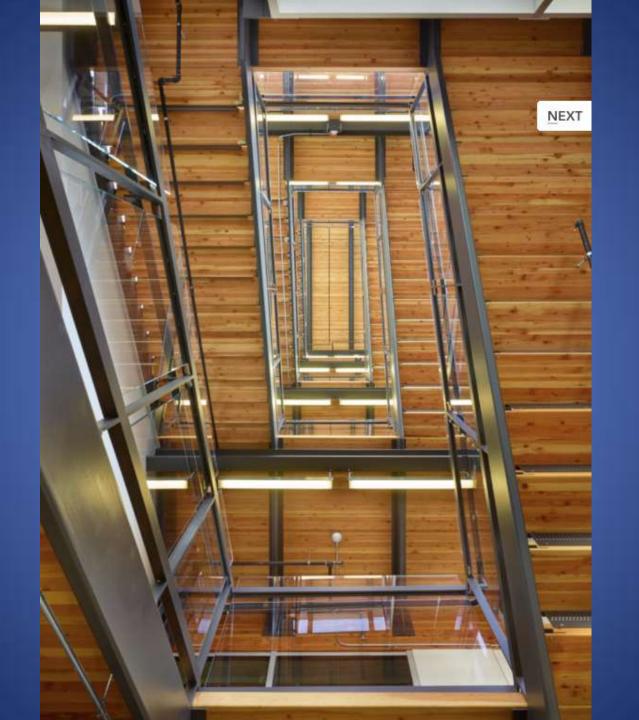








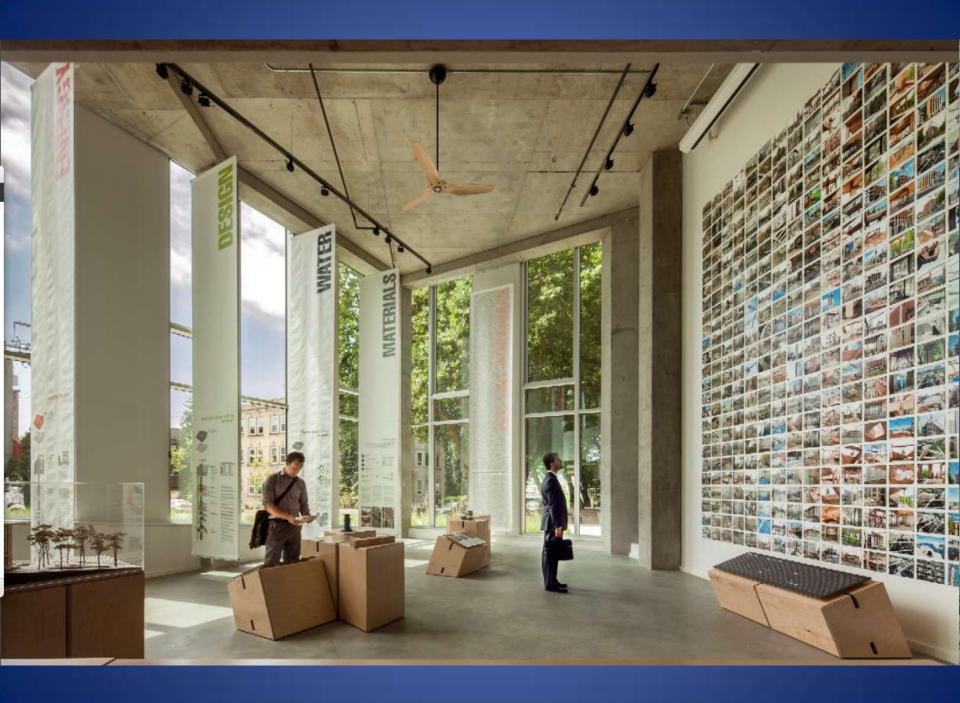






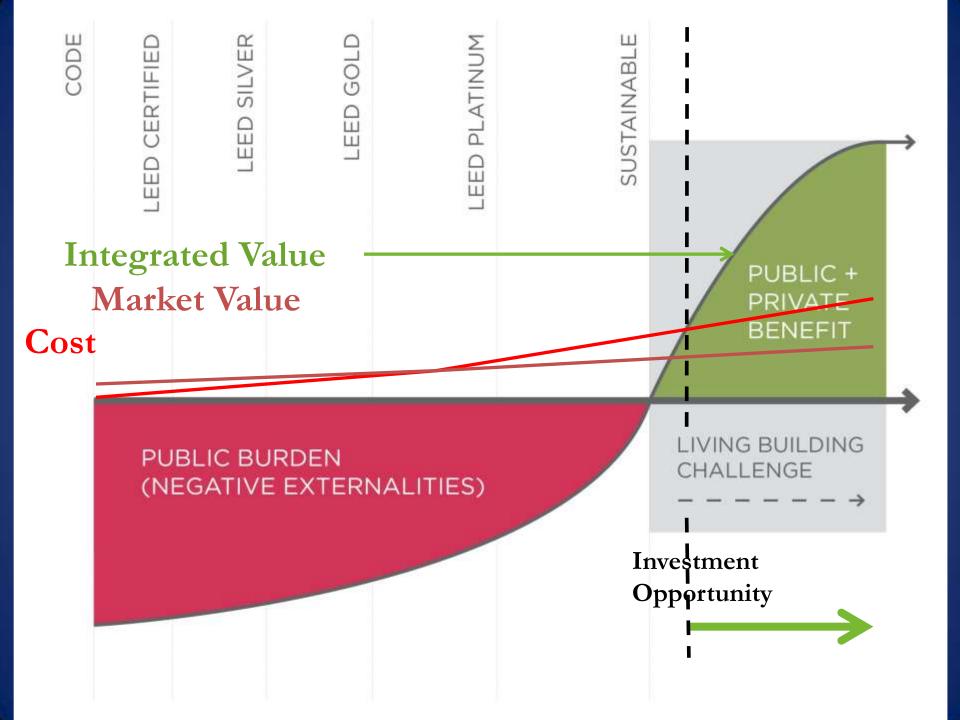
New College, Oxford











LIVING BUILDING

Regulatory Summary

Seattle Living Building Pilot Ordinance:

- 10 foot building height bonus
- Additional height for PV and "rooftop features" (skylights)
- Elimination of on site commercial loading berth

Term Permit

- PV over ROW
- Greywater infiltration in ROW

King County Dept. of Health State Dept. of Health

state Dept. of Health

On Site Sewer for greywater discharge

Environmental Protection Agency

Collected roof rainwater for potable use

BIG CHANGES

Building Energy Performance Standards

Accelerated Regulatory Review for Ultra Green Buildings

Preferential Access to Municipal New Market Tax Credits

Solar Access Law

PV over Right of Way



Earth Day 2014 & 2015: Green Cities





EarthDay.org

2014-2015: The Built Environment

Denis Hayes dhayes@bullitt.org

