



General Administration
STATE OF WASHINGTON

**Recent Legislation & Trends in
Sustainability & Energy Conservation
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Capitol Campus, Olympia



Legislative Building 20 KW Largest array of any Capitol Building in the US



Outline

- 4 Setting the Stage
- 4 Recent Legislation
- 4 Trends in Sustainability
- 4 Energy Conservation

Setting the Stage

Energy Prices are Skyrocketing

- 4 Oil prices over \$145/Barrel (up 107% in one year)
- 4 Retail electricity rates up 29% in 5 years
- 4 Retail natural gas rates up 89% in 5 years

Setting the Stage

Climate Change the Hot Topic

- 4 G-8 Summit (Kyoto expires in 2012)
- 4 Western Regional Climate Action Initiative (WA, OR, CA, NM, AZ)
- 4 US Conference of Mayors Climate Protection Agreement (850 cities representing 80 million citizens)
- 4 32 Cities in WA Participating

Setting the Stage

Energy Independence

- 4 Reduce the Need to go to War
- 4 Keep Energy Dollars Here in the US
- 4 Create Jobs Here in the US
- 4 Improve the Imbalance of Trade
- 4 Become a World Leader in the
“Beyond Oil” Economy

2005 Legislation

- 4 ESSB 5509 – High Performance Green Buildings
 - 4 Buildings over 5,000 SF
 - 4 New and Renovations
 - 4 Receiving Funds from the Capital Budget
- 4 Over 80 State Projects Pursuing LEED Silver or Higher

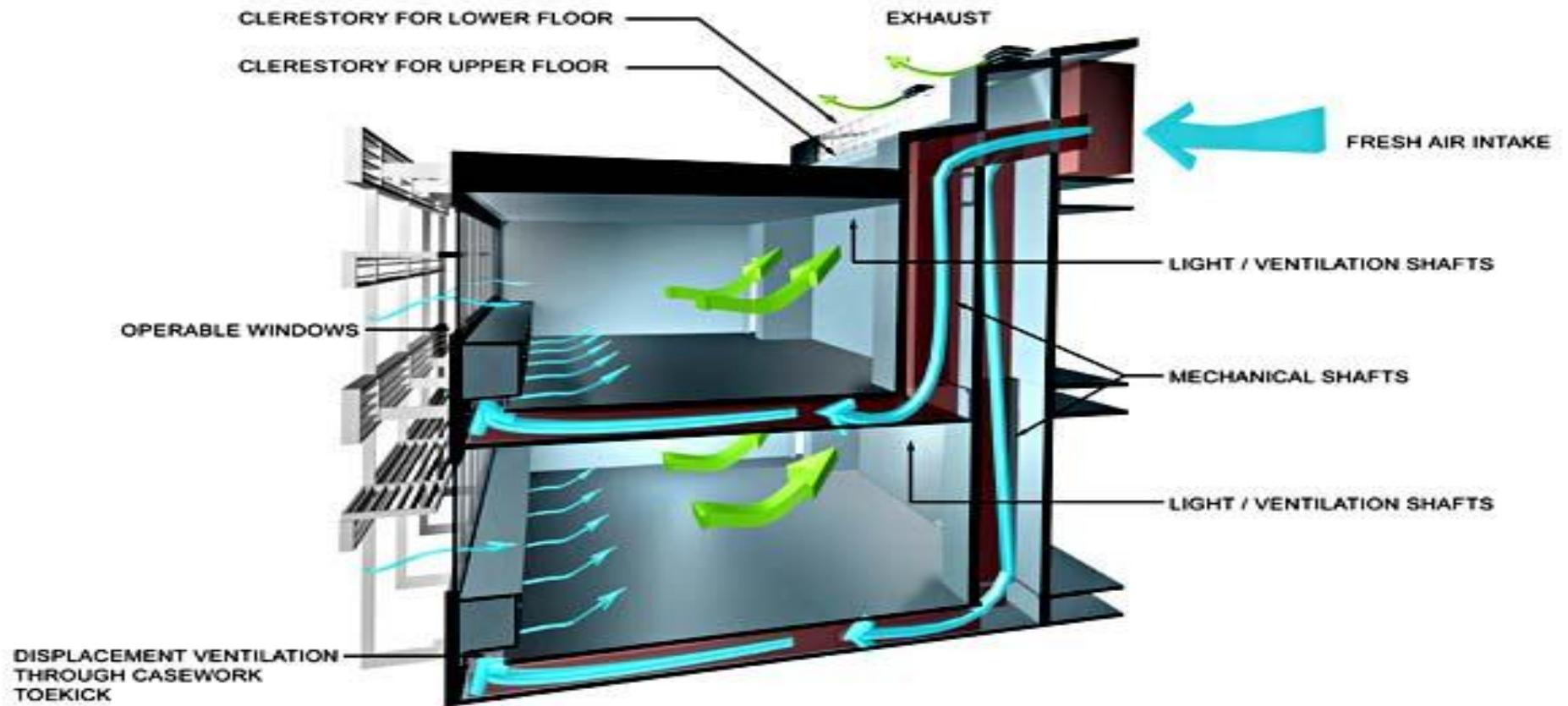
2008 Legislation

- 4 E2SHB 2815 – Greenhouse Gas & Green Jobs
 - 4 CO2 to 1990 levels by 2020
 - 4 25% below 1990 levels by 2035
 - 4 50% below 1990 levels by 2050
- 4 SHB 3120 – Sales Tax Exemption for Green Certified Buildings (Study)
- 4 Initiative 937 – Conservation and Renewables

Trends in Sustainable Design

- 4 Hybrid Buildings (with natural ventilation mode)
- 4 Electric Based HVAC Systems (Ground Source & VRF)
- 4 Displacement Systems (underfloor and low wall)
- 4 Heat Recovery
- 4 Design for Proper Daylighting

Displacement Ventilation Daylight / Ventilation Shafts



Trends in Sustainable Design

- 4 Wilson HS,
Tacoma SD
- 4 Exterior Light
Shelves



Trends in Sustainable Design

- 4 Wilson HS,
Tacoma SD
- 4 Low Wall
Displacement
Diffuser



Trends in Sustainable Design

- 4 Wilson HS,
Tacoma SD
- 4 Light Well and
Exhaust Duct



Trends in Sustainable Design

- 4 Metering Energy and Water
 - 4 Energy Tracking Important for Reporting and Meeting Climate Change Goals
 - 4 Tax Incentives and Carbon Trading
- 4 Renewable Energy
 - 4 Integrated Photovoltaics
(window, light shelf, roof membrane)
 - 4 Solar Thermal (campus, high demand hot water applications and residential)

Trends in Sustainable Design

- 4 Low Impact Development
- 4 Buy Washington Building Products
 - 4 A Part of ESSB 5509
- 4 High Levels of Construction Waste Recycling

Trends in Energy Conservation

- 4 I-937 Driving New Utility Programs in Conservation
- 4 Improved Incentives (i.e. PSE up 50%)
- 4 Energy Policy Act of 2005
 - 4 Provides up to \$1.80/SF Tax Credit for Energy Improvements (designer can get credit on a public facility)
 - 4 Tax Credits for Renewables
 - 4 Many Tax Credits Expire at the End of the Year
- 4 New Energy Policy Act Expected Before the End of the Year



Thank You
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www.ga.wa.gov/eas/green



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