INTRO

ENERGY FOR HUMANITY...
Today nearly three billion people cook over open fires fueled by wood, dung, coal, or charcoal.

The health consequences are severe: every year, indoor air pollution causes two million premature deaths, one million cases of chronic lung disease, and half of all of pneumonia deaths among children under the age of five.
WE ❤️ ELECTRICITY...

Scroll to begin or use the arrow buttons.
The Times of India New Delhi, 08, May 2014

Delhi air worst in the world
Packed With Fine Particles That Damage Heart, Lungs: WHO

High PM2.5 levels are associated with major health effects. WHO in its statement said: “High concentrations of small and fine particulate pollution is particularly associated with high numbers of deaths from heart disease and stroke, as well as respiratory illnesses and cancers. Measurement of fine particulate matter of 2.5 micrometres or less in diameter (PM2.5) is considered to be the best indicator of health risks from air pollution.”

WEATHER

Delhi: 28°C
Humidity: 70%
Wind: 3mph

New Delhi: Delhi has the most polluted air in the world. A World Health Organization (WHO) air quality database of 1600 cities in 192 countries released on Wednesday shows that the concentration of PM2.5 (fine, respirable particles) is highest in Delhi at 153 micrograms per cubic metre (µg/m³) when the WHO standard is just about 10 µg/m³. The fine, particulate pollution which is considered most dangerous for health is way higher in Delhi compared with many other crowded Asian cities, including Beijing which has a PM2.5 level of 40 µg/m³, Karachi (175µg/m³) and Shanghai (68µg/m³).

The concentration of PM2.5 in Beijing is around 40 µg/m³, more than 14 times higher than the WHO annual mean standard of 30 micrograms (µg/m³) and far above the levels in Pakistan where low levels of 10 µg/m³ are seen in major cities.

This is not the first time Delhi has earned the dubious distinction of being the most polluted air city. In January, Yale University’s Environmental Performance Index 2014 had ranked India among the bottom five in a list of 187 countries for various parameters, including air pollution. A controversy erupted when the Yale data was interpreted to mean that Delhi’s air quality is worse than Beijing’s. The Delhi government said the ministry of earth sciences, which monitors air pollution data for the city had vehemently denied this. But the latest WHO database suggests that Beijing probably has better control systems in place to deal with air pollution.

“WHO has not ranked cities but its database gives us an idea of where we stand. Delhi is more polluted than others. WHO has compared our annual mean levels with its standards, which are far lower than Indian standards. The database highlights what a major public health issue air pollution is and how aggressive our policies need to be,” said Amritpal Roychowdury, air pollution expert at Centre for Science and Environment (CSE). India’s annual mean standard for PM2.5 is 60 µg/m³ and for PM2.5 it is 40 µg/m³.

Small particles less than 10 micrometres in diameter (both PM10 and PM2.5) pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. Exposure to such particles can affect both your lungs and your heart.

- US ENVIRONMENTAL PROTECTION AGENCY DOCUMENT

Subcontinent’s dirty air

Cities
PM2.5
PM10
Delhi
286
153
Karachi
273
17
Beijing
180
86
Beijing
121
56
Kanpur
64
28
Jakarta
19
21
Singapore
27
17
PM2.5 Particulate matter of size 2.5-10 micrometers; PM10 Particulate matter smaller than 2.5 micrometers

...
Sources of world’s energy in 1990 and 2013

<table>
<thead>
<tr>
<th>Source</th>
<th>1990</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td>39%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Coal</td>
<td>27.3%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Gas</td>
<td>21.8%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Hydro</td>
<td>6%</td>
<td>6.7%</td>
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<tr>
<td>Nuclear</td>
<td>5.6%</td>
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<tr>
<td>Biomass</td>
<td>0.3%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Wind</td>
<td>0.1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Solar</td>
<td>0%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
The gender gap in public attitudes to nuclear energy

How favourable or unfavourable is your opinion or impression of the nuclear energy industry? (% Very / Mainly favourable; % Very / Mainly unfavourable)

Tracking adjustment for method change: Favourable (-5%)
Base: Online survey (2,048).
Source YouGov Nov 2013

9% increase among 45 to 54 y/o
8% decrease among 16 to 24 y/o
9% increase among 45 to 54 y/o
ENGAGING WOMEN

• RECRUIT
• PROGRESS
• ADVOCATE
World’s leading climate scientists calls for environmentalists to reconsider nuclear energy
WIND AND SOLAR?

- Total wind power is 2% of global electricity.
- Total solar power is 0.25% of global electricity.
- Average annual increase in global electricity is 3%.
- Coal remains the fastest growing source of energy on the planet.
“How much risk do you believe ... poses to human health, safety, or prosperity?”

“How much risk do you believe ... poses to human health, safety, or prosperity?”

$f = .47, p < 0.01$

“How much risk do you believe ... poses to human health, safety, or prosperity?”

\[ r = 0.47, \ p < 0.01 \]

“How much risk do you believe ... poses to human health, safety, or prosperity?”


\[ r = 0.47, p < 0.01 \]
“How much **risk** do you believe ... poses to human health, safety, or prosperity?”

“How much risk do you believe ... poses to human health, safety, or prosperity?”

“How much **risk** do you believe ... poses to human health, safety, or prosperity?”

Cultural worldviews accurately predicts belief on fact of global warming.

Source: Cultural Cognition Project, Yale Law School  *The Second National Risk and Culture Study: Making Sense of - and Making Progress in - the American Culture War of Fact*
75% SUPPORT BALANCED ENERGY MIX INCLUDING NUCLEAR AND RENEWABLES

How far do you agree or disagree that ... Britain needs a mix of energy sources to ensure a reliable supply of electricity, including nuclear power and renewable energy sources? (Strongly / tend to agree)

- All (n=2,048): 75%
- 16 to 24 (n=200): 75%
- 25 to 34 (n=247): 74%
- 35 to 44 (n=331): 71%
- 45 to 54 (n=398): 78%
- 55 to 64 (n=426): 76%
- 65+ (n=446): 77%

The biggest increase is among Women (+8pp)

Net: Agree (2012) 80%
Net: Agree (2013) 81%

Tracking adjustment for method change: Agree (+7%)
Base: Online survey (2,048)
Source YouGov Nov 2013
Create a global platform in the build up to COP21 where thought leaders and experts can discuss nuclear power’s role in future electricity generation and carbon reduction.

Highlight the potential impact of nuclear reactor technology in achieving global social, environmental and economic goals.

Bust myths surrounding nuclear, creatively communicating the facts, including how advanced reactors will address many concerns associated with conventional nuclear.
We believe the Climate Summit in Paris in December presents a unique opportunity to change the conversation about energy and climate, and to shine a light on the benefits that nuclear offers society and the environment.

If you agree:
• Talk to your friends and colleagues.
• Get organized.
• Sign.
• Spread the word!
Thank you for your attention. Happy to take questions.