

fracking inquiry

From: Stuart McGill [REDACTED]
Sent: Sunday, 25 February 2018 4:00 PM
To: fracking inquiry
Subject: Submission to Fracking Inquiry
Attachments: UNSW_UNSOMNIA_MGreen_20171119_7.pdf

Dear Sir / Madam

This is my submission, as a private citizen, to the Inquiry.

I had been working on a longer document, but it is not complete yet (but will be within a week).

Essentially, my submission is that over the next 10-30 yrs, the efficiency of solar (or other renewables) will increase to such a point that fracked gas is not economic to produce for either the Australian or overseas market.

It will be essentially the same story we have seen with coal economics in the last several years. That is, coal efficiency and economics decreases versus renewables, and pollution concerns increase, to a point where coal production and expansion is increasingly curtailed, to a point of termination of the industry in due course. In addition, this has happened much more rapidly than anyone estimated.

The same is likely to happen with gas of all types (starting with onshore gas as I understand it has higher costs than some large potential reserves of offshore gas).

Among other things, the efficiency improvement will lead to it being impossible to have banks and other finance such new gas production... at least due to the uncertainty about further gains in renewable efficiency, and the controversy of being associated with fracking and non-renewable production.

The controversy and negative public opinion about all non-renewable energy will also increase as extreme weather events accelerate in the way predicted in the Garnaut Report, as well as other studies and well substantiated books.

I therefore also submit that in view of the above changes, and uncertainty, the financial, governmental, and environmental costs of fracking in the NT cannot be justified on economic or environmental grounds. At least, such issues should be well canvassed in your report for the consideration of policy makers.

In support of my argument, I ask you to view the video of a recent presentation by Prof Martin Green from UNSW, here:

<https://www.youtube.com/watch?v=nIDLSB9aWc4>

I also ask you to consider the attached slides he used in the talk at the above link.

There is also a slightly different version of his points in this recent interview. <http://www.abc.net.au/radionational/programs/ockhamsrazor/a-new-solar-reality/9445710>

Essentially, he argues that the solar efficiency in the last two years has even more dramatically improved, and this has not been taken into account by policy makers, even in the very recent Finkel Report.

He includes at least one slide that shows that the cost of electricity production based on gas is much higher than the current cost of solar production, and the cost of that solar production is still continuing to fall rapidly.

Prof Green also argues, with data, that the world cannot afford to expand carbon based electricity production if it is to stay within the two degree boundary. I submit that this is also a factor your Inquiry should at least comment on for the consideration of policy makers. It is not simply a matter of concluding that fracked gas can be extracted safely if various conditions are met, and various new regulations complied with.

At this point, I am not aware if you have looked at the points made by Prof Green and possibly others. The field of solar efficiency and related economics is clearly advancing extremely rapidly. If you have not looked at his materials, I suggest a further investigation of what he argues, and what I submit, is warranted.

Thank you for the opportunity to make a submission.

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Sincerely

Dr Stuart McGill

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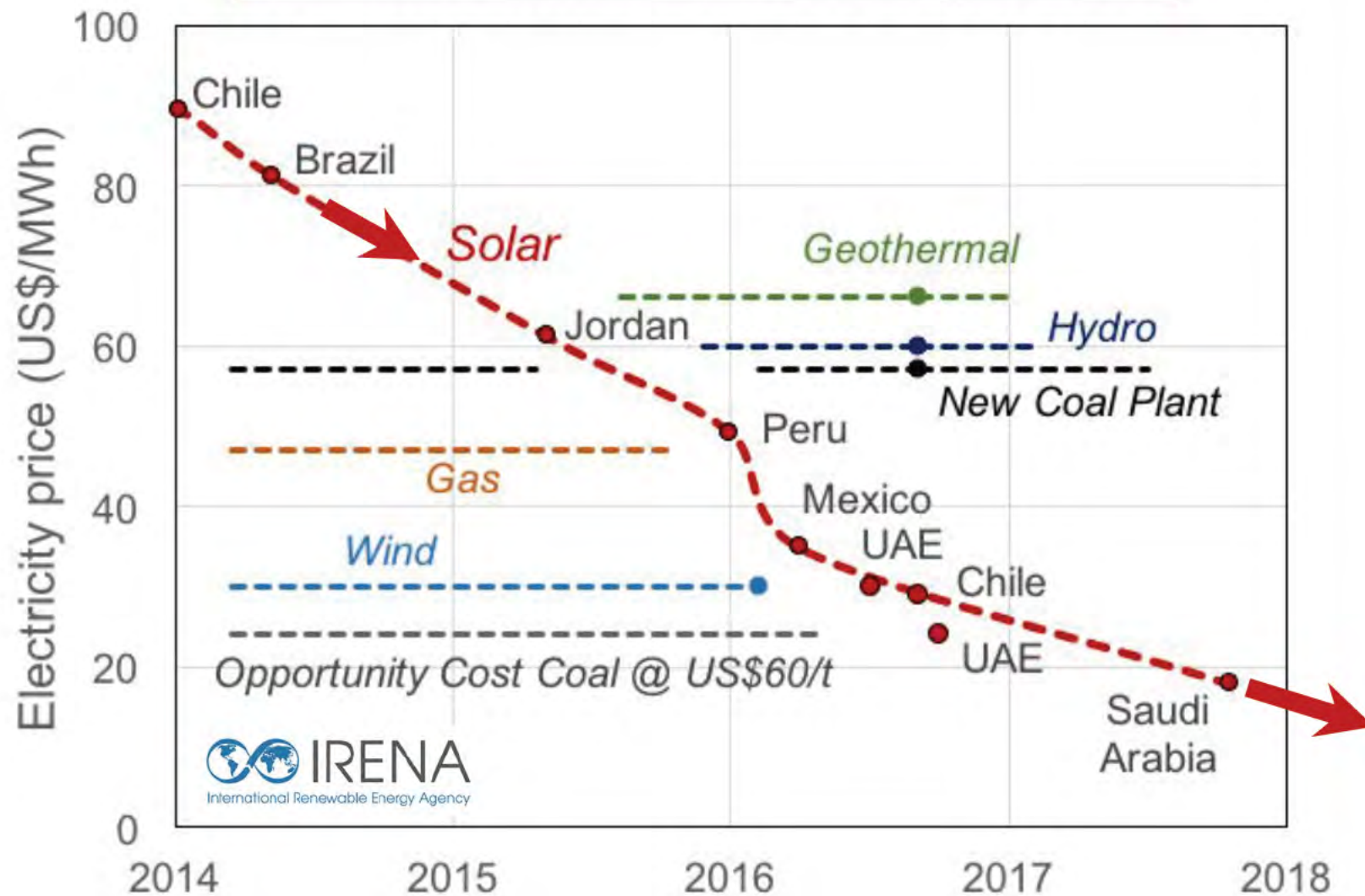
UNSW
SYDNEY

Australia's
Global
University



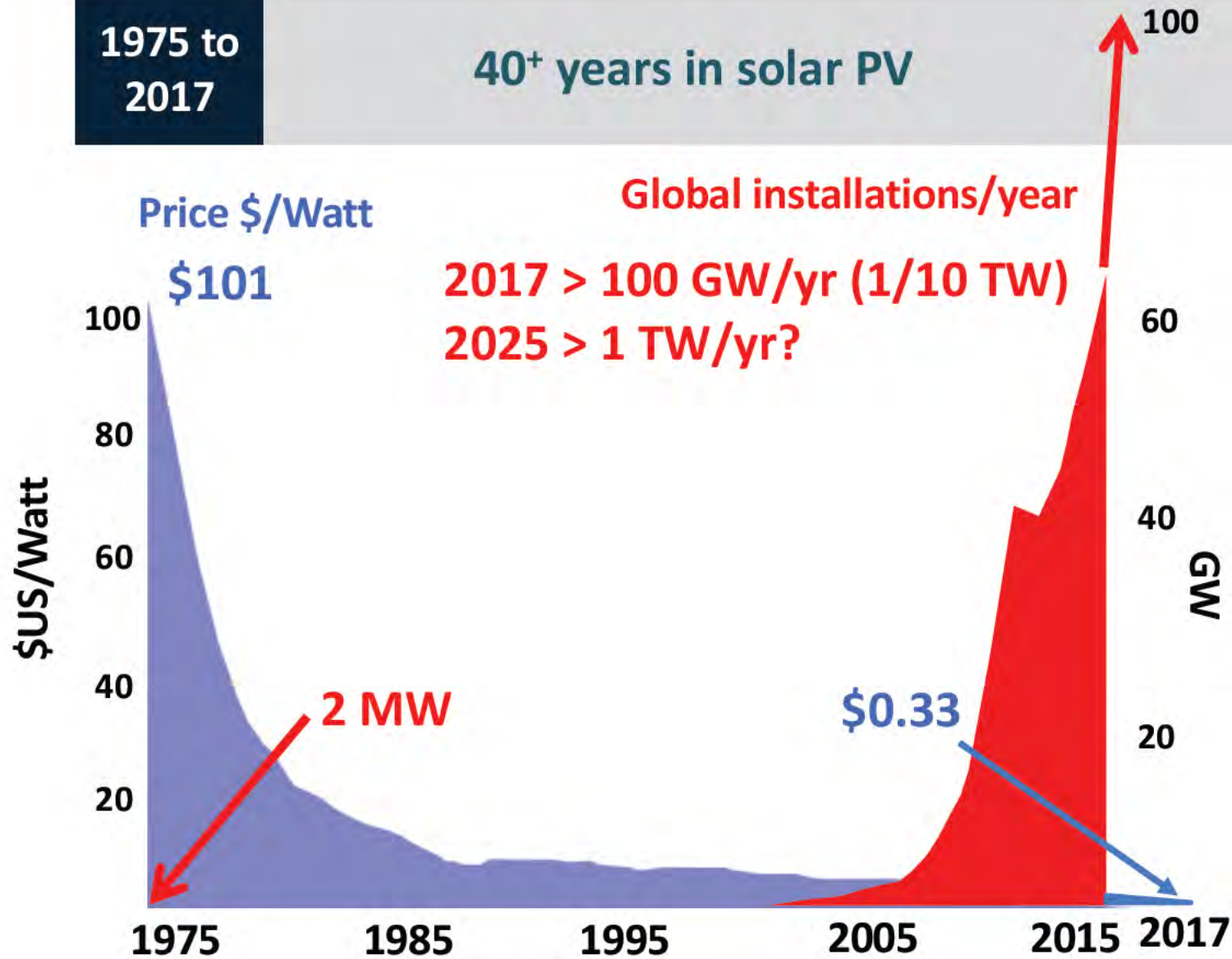
*What needs to change?
Pessimism about renewable energy!*

Low Bids: International Electricity Auctions



1975 to
2017

40+ years in solar PV



40+ years in solar PV



ear
(V)

60

40

GW

20



1975

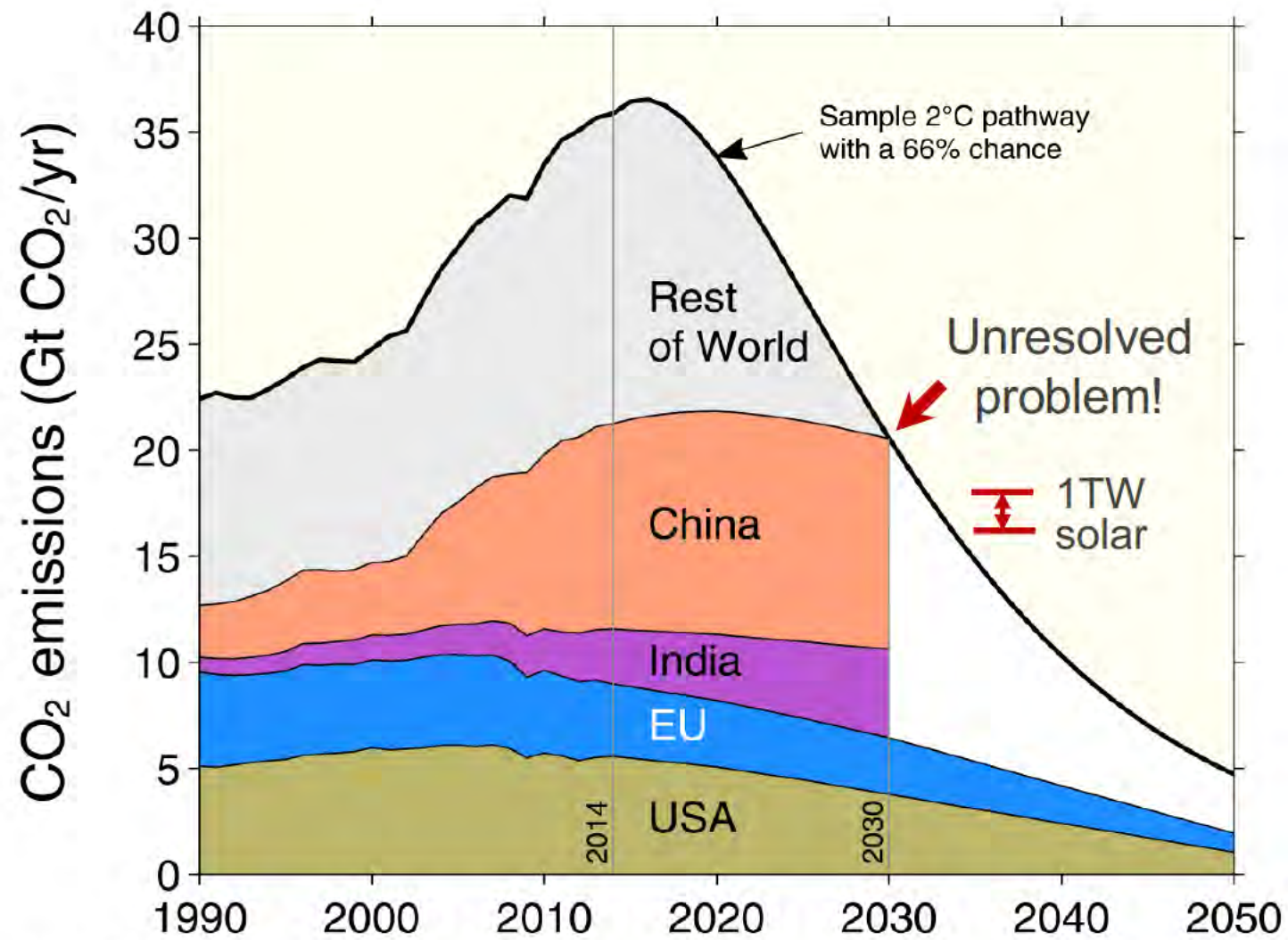
1985

1995

2005

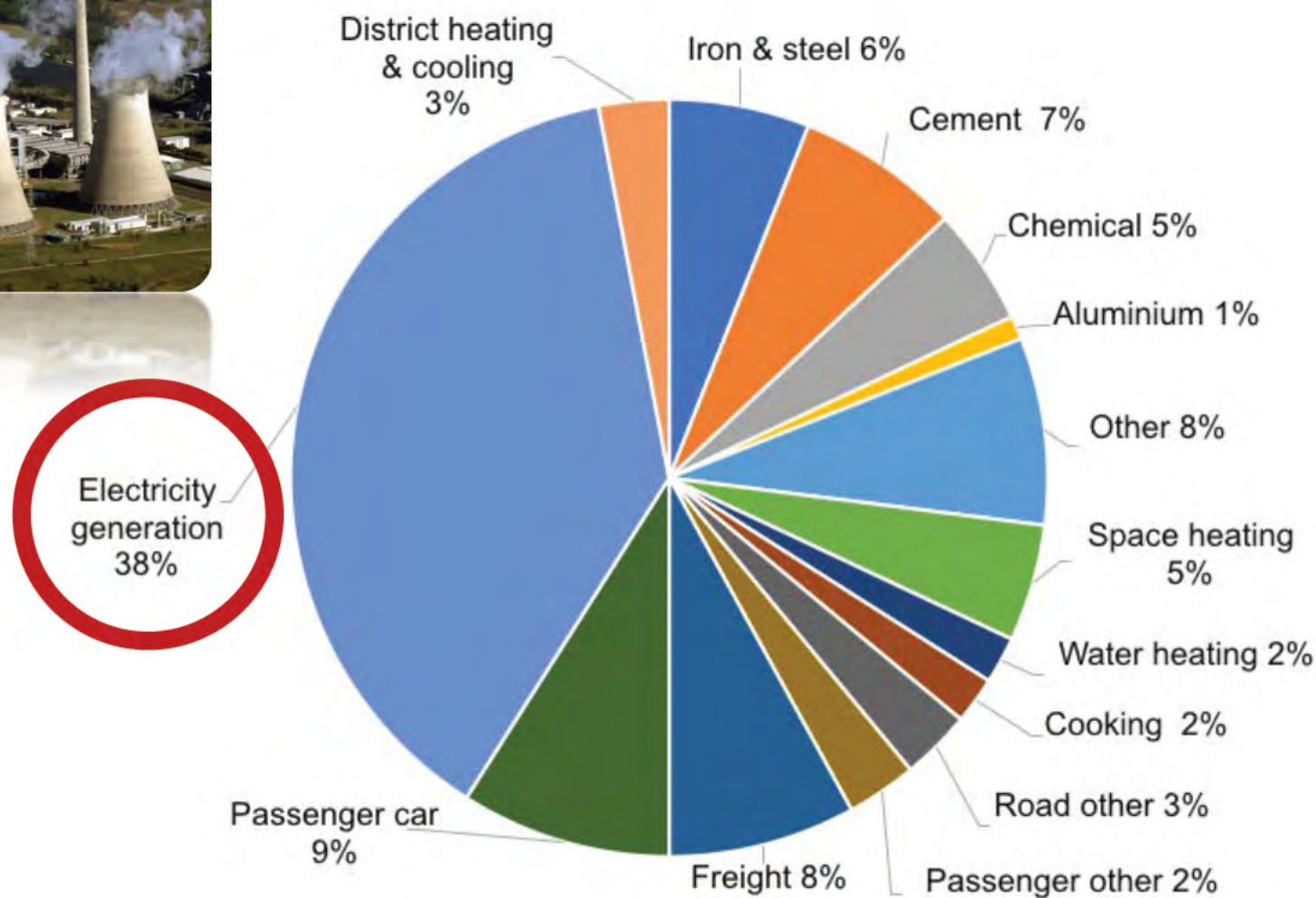
2015

2017



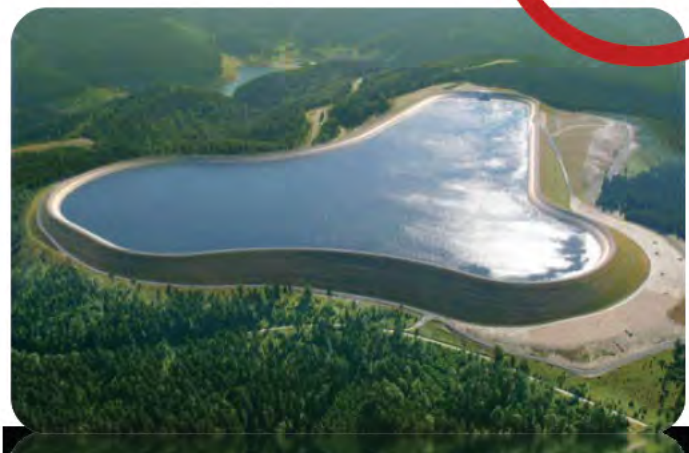


Source of global CO2 emissions

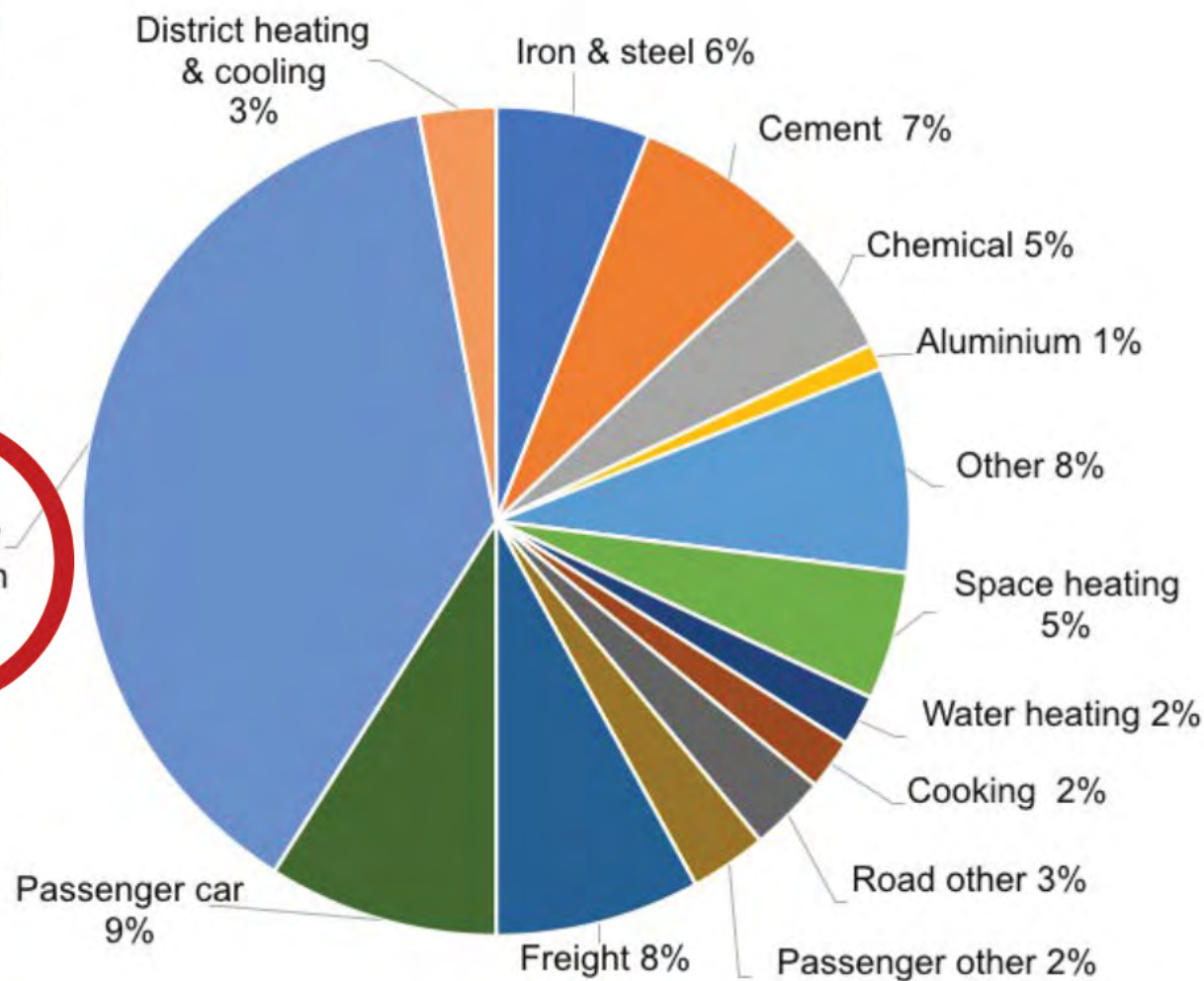




Electricity
generation
38%

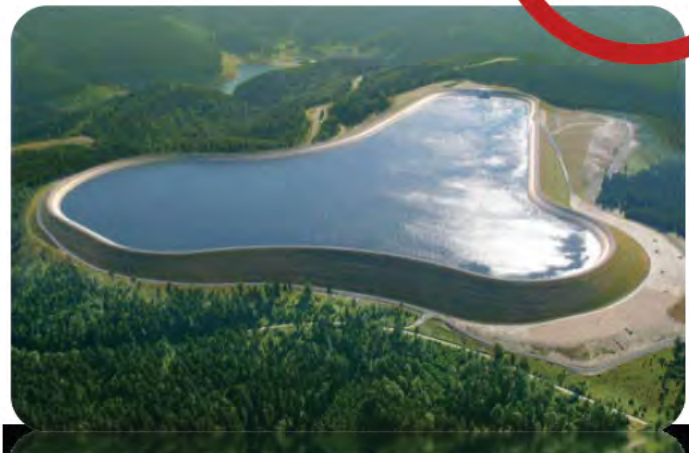


Source of global CO2 emissions

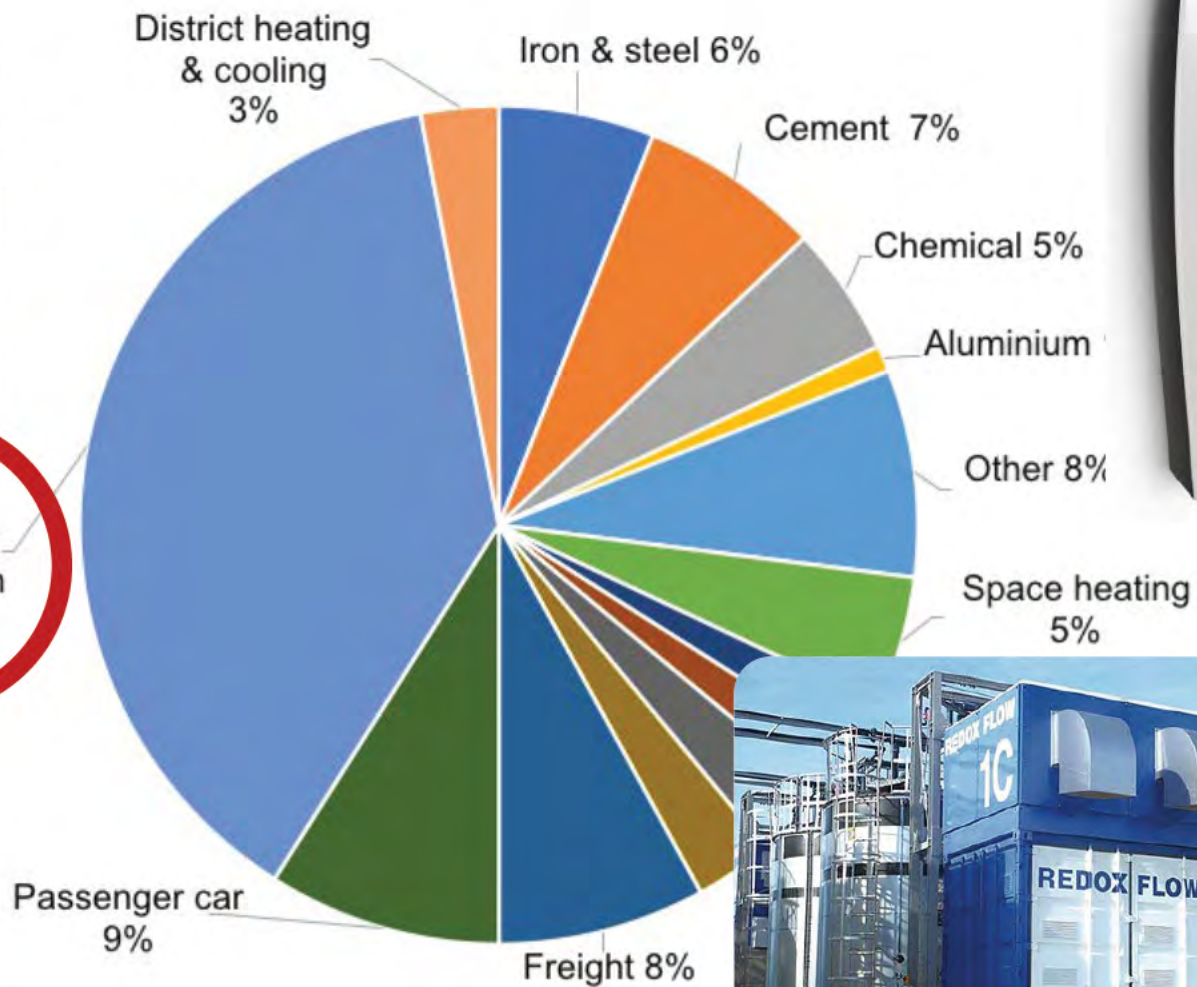




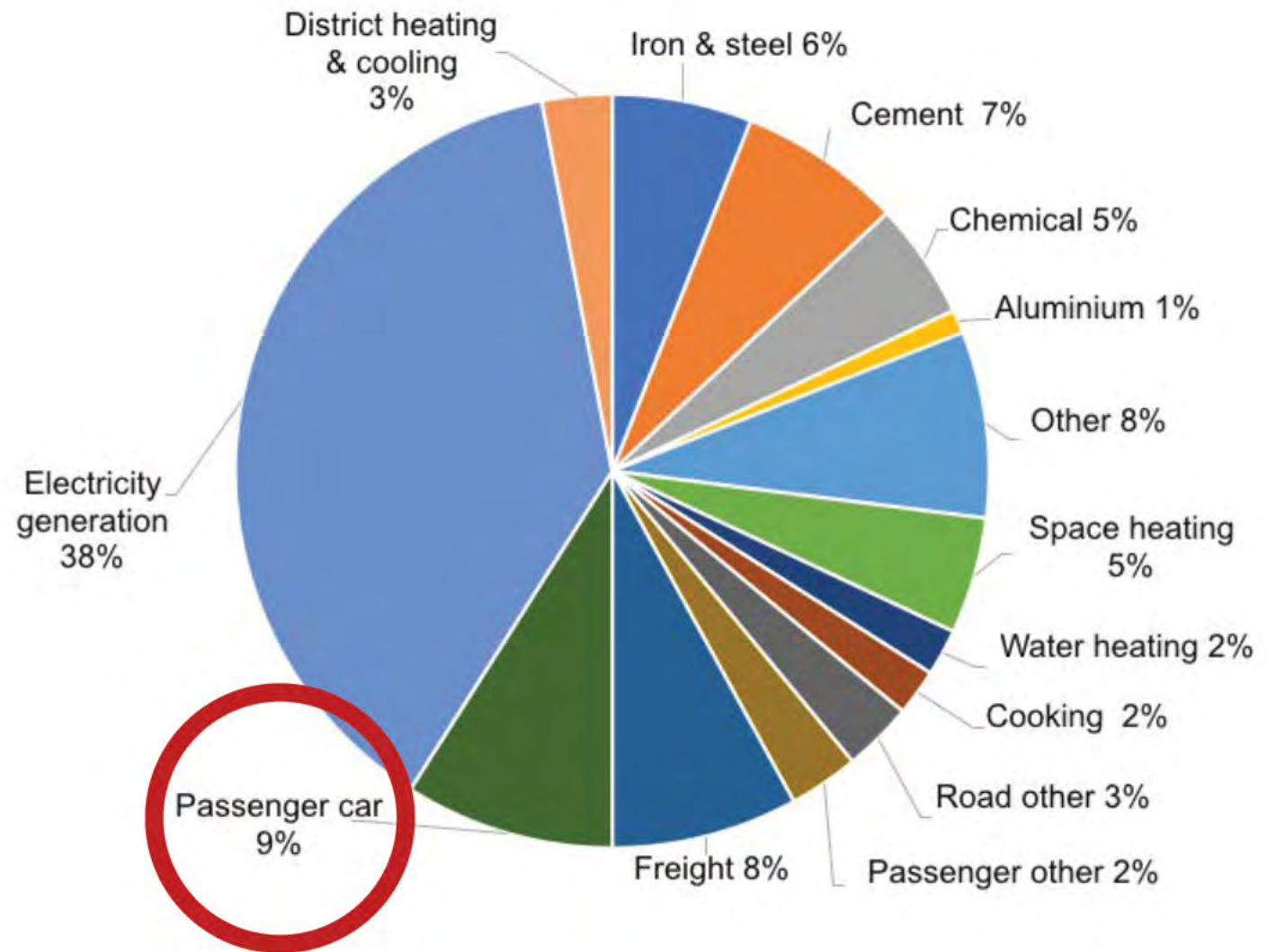
Electricity
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38%



Source of global CO2 emissions



Source of global CO2 emissions

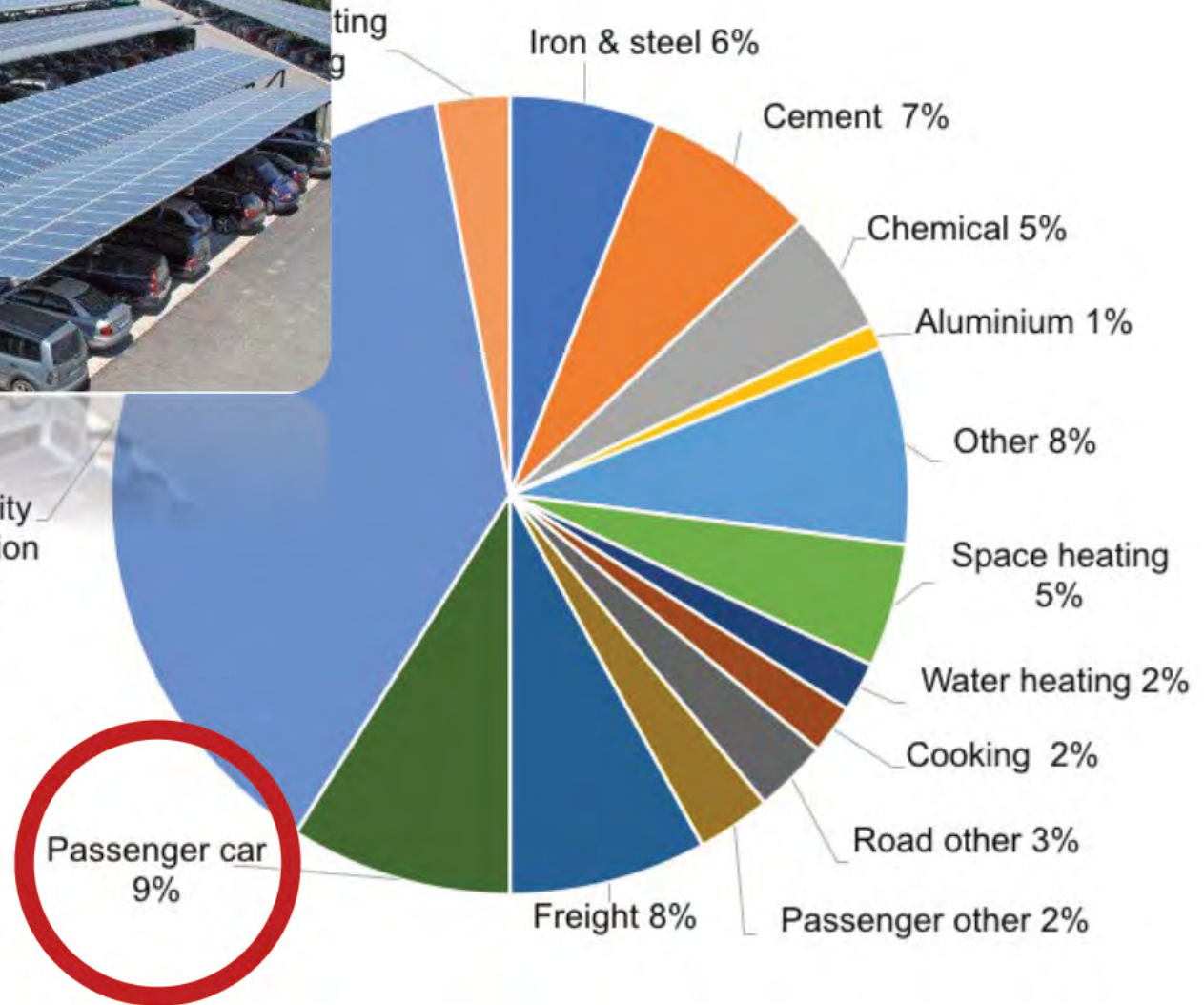


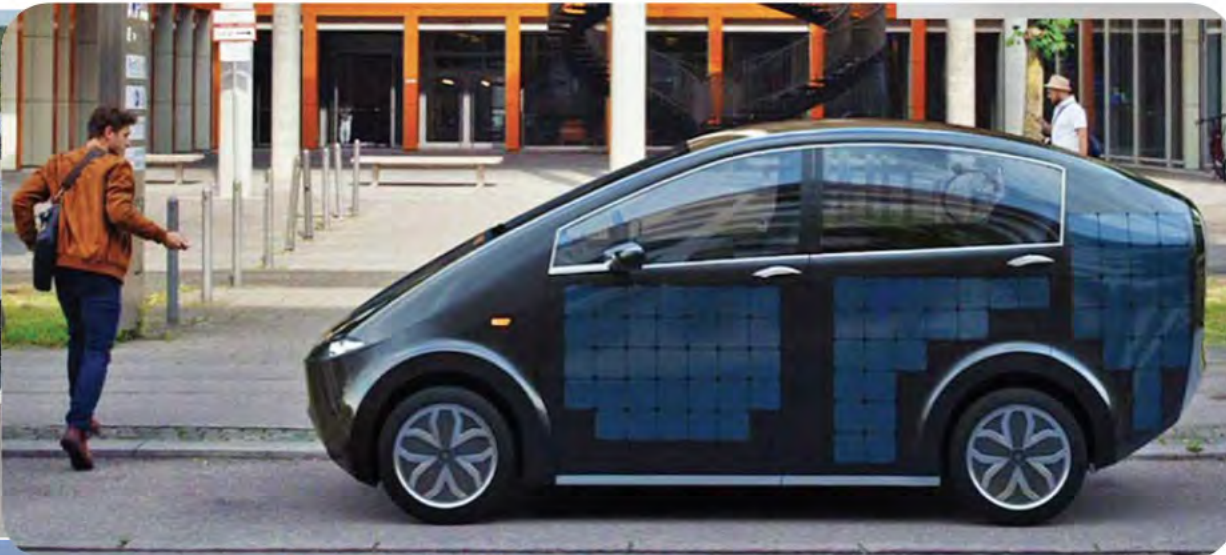


of global CO2 emissions

Electricity
generation
38%

Passenger car
9%





Electricity
generation
38%

Passenger car
9%

Freight 8%

Other 8%

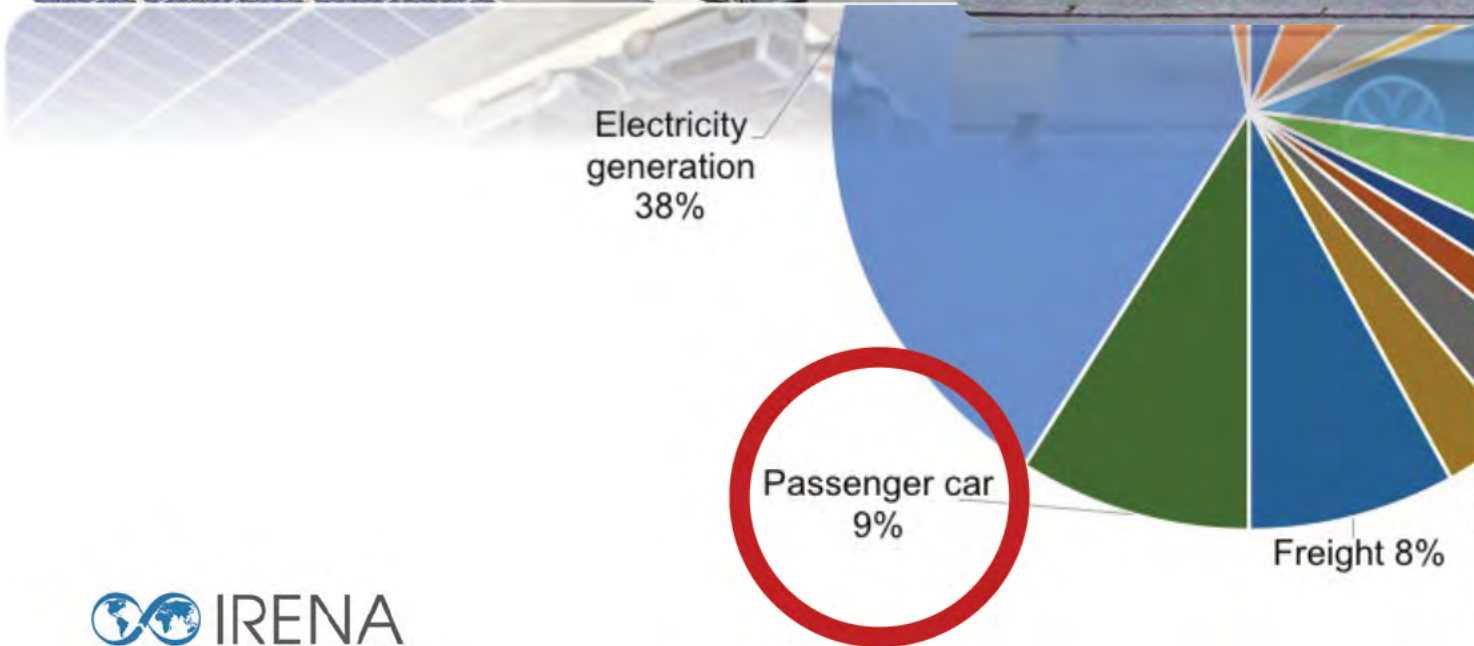
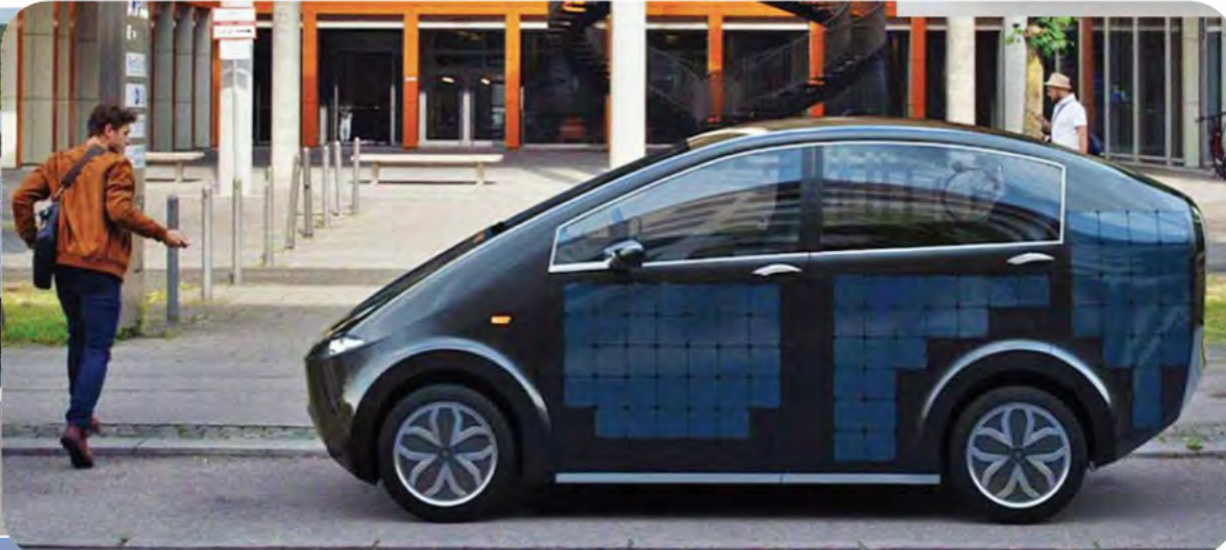
Space heating
5%

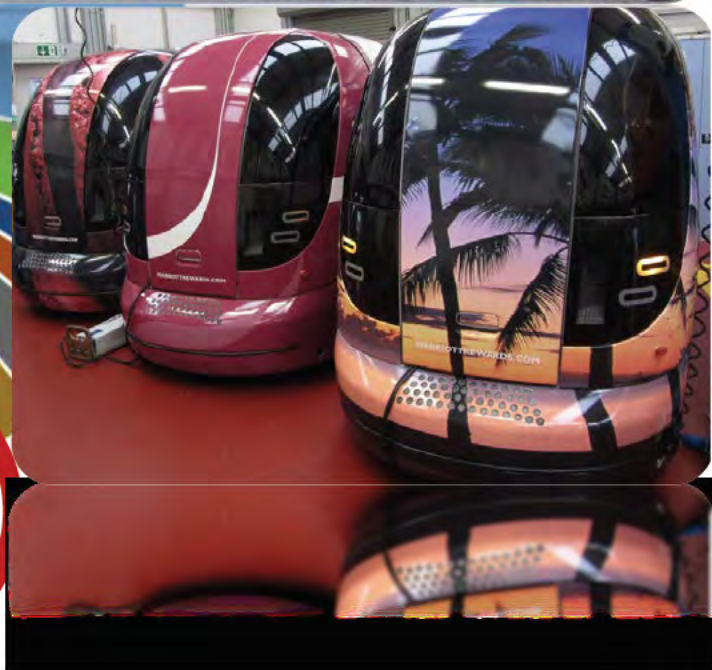
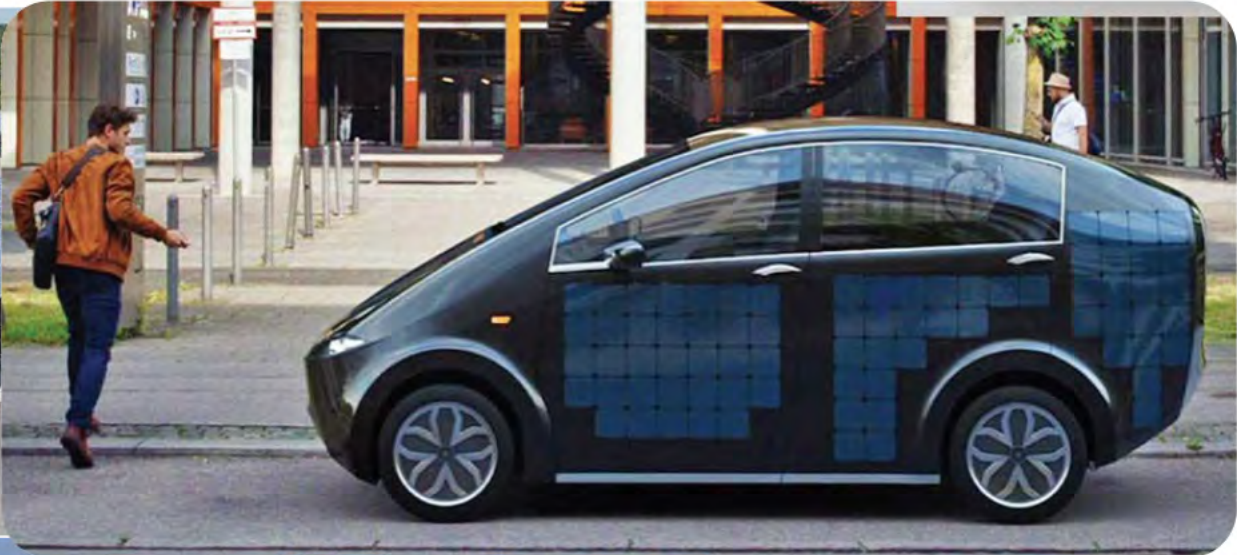
Water heating 2%

Cooking 2%

Road other 3%

Passenger other 2%







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