



**DANISH
TECHNOLOGICAL
INSTITUTE**

Survey

*Knowledge and position on electricity production
from renewable energy sources in the Greater
Copenhagen Region*

As part of EU project

Boosting green electricity in 11 European regions

Carried out by

IFO – Instituttet for Opinionsanalyse A/S

April 2005

Introduction and method

As part of the EU project ” Boosting green electricity in 11 European regions” the Danish Technological Institute (DTI) has asked the survey company IFO to carry out a survey in order to uncover the knowledge and position of electricity production from renewable energy sources among people over 18 years of age in the Greater Copenhagen Region (in Danish, ‘HUR regionen’).

358 persons representatively distributed over the Greater Copenhagen Region have been interviewed by telephone.

A report of the complete survey is made in Danish by IFO and is available at the website www.solenergi.dk/cph-rese.

This report which is an extract in English of the Danish report is made by DTI.

The first section summarizes the results in text and graphics.

The last section presents the results of the data processing on all respondents in tables.

RESULTS

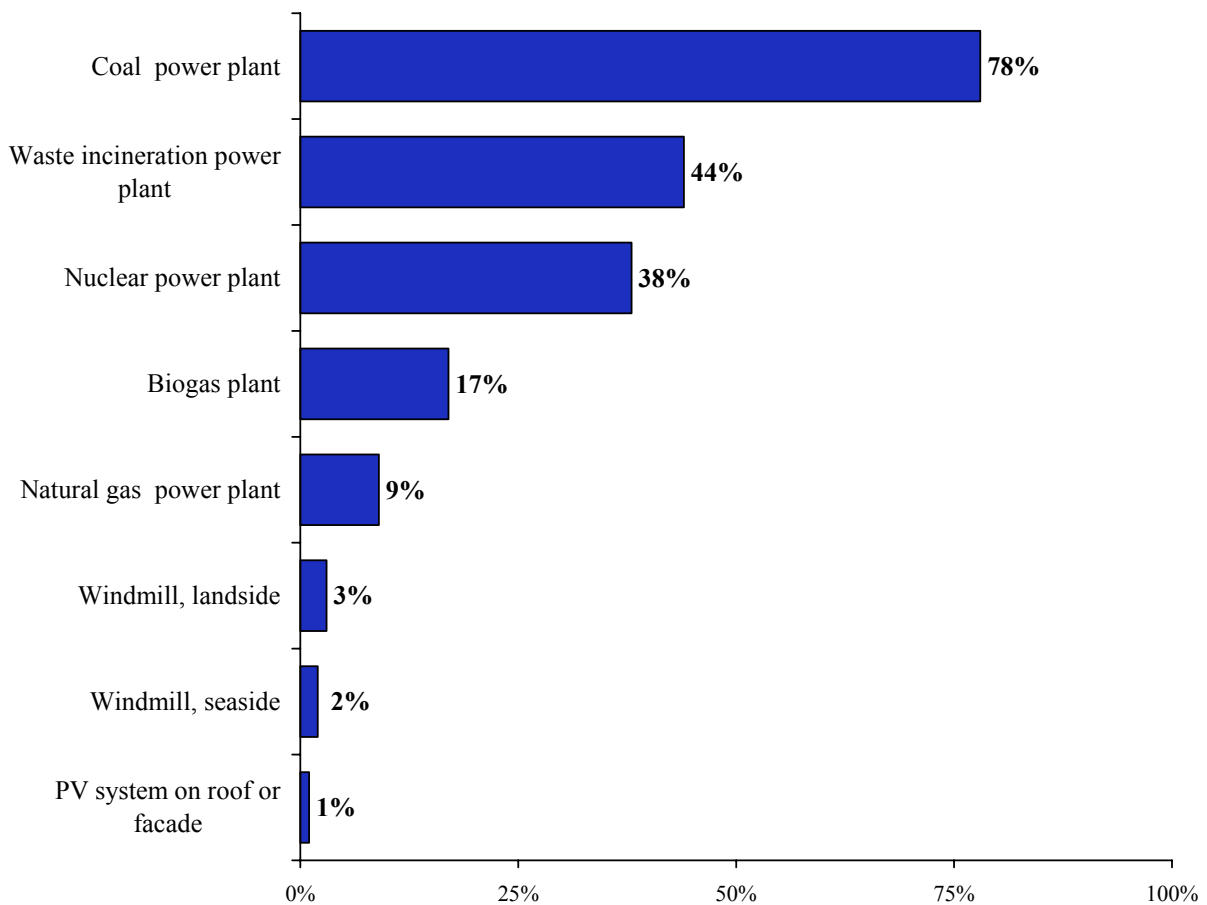
The respondents were at first asked how much they consider a number of different technologies for generation of electricity to impact the environment - with regard to direct pollution as well as in the form of noise and visual impact in the nature. They should answer on a scale from 1 to 5. 1 means little or no impact and 5 means very big impact. Ignorance of the technology should be answered with “don’t know”.

In the figure presented below the shares of answers ‘5’ and ‘4’ (serious impact) are added.

It is seen that coal fired power plants are considered to impact the environment significantly more than any of the other mentioned technologies.

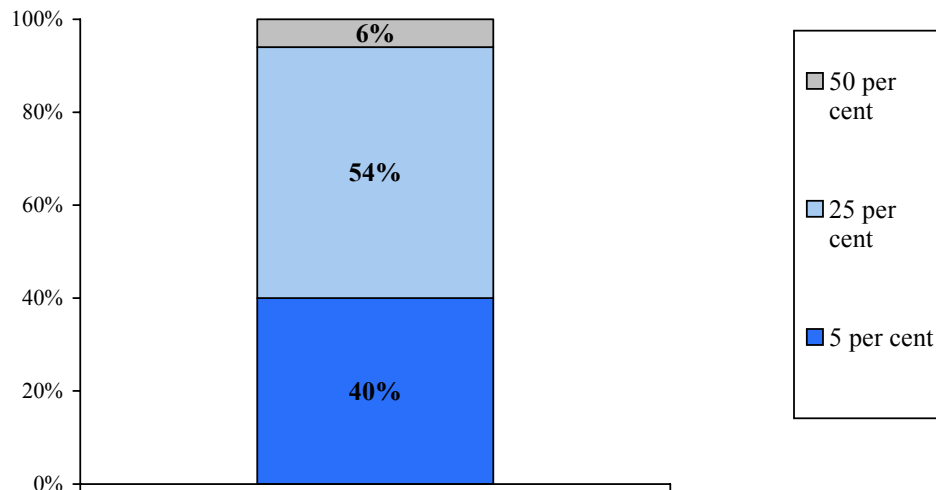
Photovoltaic systems on roofs or facades of buildings are considered to be the technology impacting the environment least of all. Only 1 % have answered ‘4’ or ‘5’. More than 80 % have answered ‘1’ (very little or no impact), see table 1.

How much do you think these technologies for generation of electricity impact the environment - with regard to direct pollution as well as in the form of noise and visual impact in the nature?



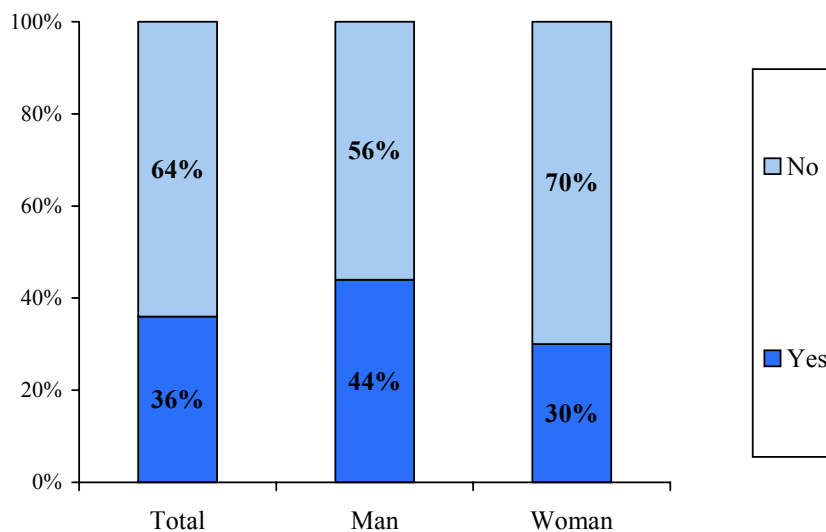
Next the respondents were asked how much they think renewable energy sources like for instance wind, biomass, and PV contribute to the Danish electricity production. From the figure below it appears that 54 % hit the right answer, namely that about 25 % of the electricity is produced from renewable energy sources. However, as much as 40 % of the respondents think that the share is only about 5 %.

What is the share of green electricity (for instance electricity from wind, biomass, PV) on the electricity production in Denmark?



The respondents were then asked if they have heard that EU is aiming at increasing the share of electricity production from renewable energy sources significantly in the years to come. 36 % of the citizens claim that they have heard so. 64% respond "no". More men (44 %) than women (30 %) have heard the information.

Do you know that EU is aiming at increasing the share of electricity production from renewable energy sources substantially in the years to come?

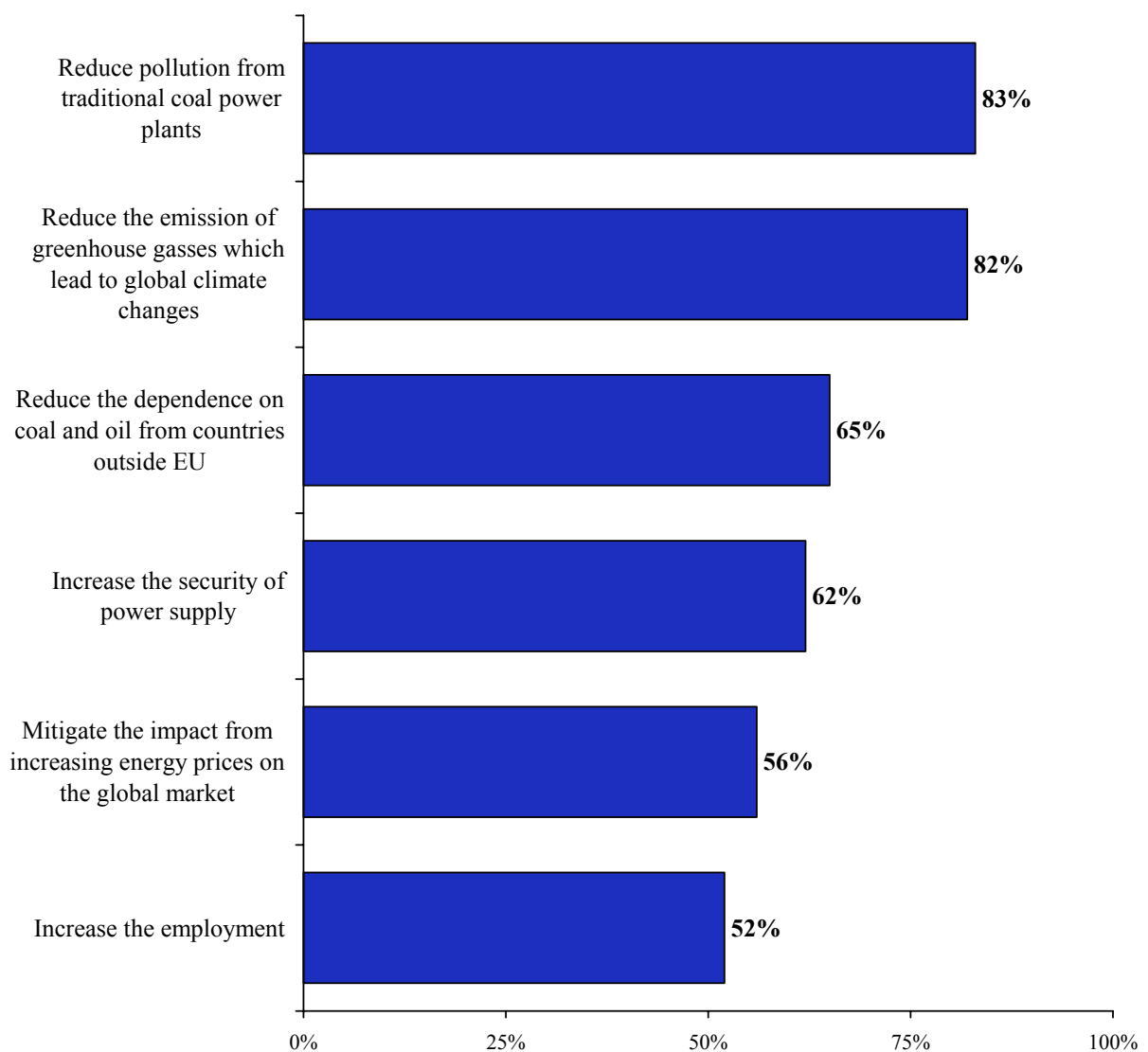


The respondents were then faced with some of the reasons of EU for wanting to increase the share of renewable energy. They were then asked to assess the importance of each of the reasons on a scale from 1 to 5. 1 means little importance and 5 means very big importance.

In the figure presented below the shares of answers '5' and '4' (big or very big importance) are added.

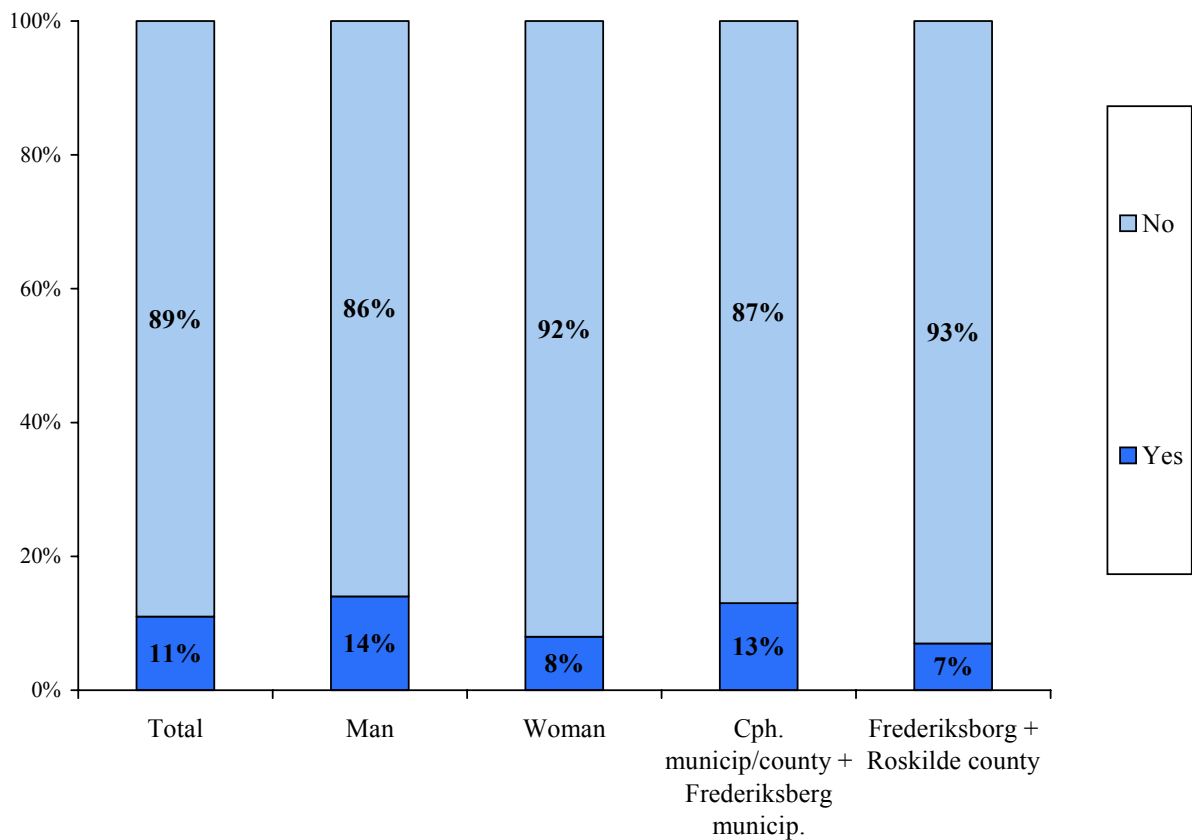
It is interesting to see that all of the reasons given are considered to be important, with reduction of pollution from coal fired power plants and emission of greenhouse gasses to be the most important reasons.

The importance of the reasons for EU to aim at increasing the share of renewable energy sources for generation of electricity



Finally the respondents were asked if they know of one or more initiatives taken by their municipality or county to promote renewable energy within the last 2 years. Only 11 % of the citizens know of such initiatives! Generally more men than women know of initiatives. From a geographical point of view relatively more citizens in the densely populated areas of Copenhagen city and Frederiksberg know of initiatives than citizens in the less populated areas of the counties of Frederiksborg and Roskilde.

Do you know of one or more initiatives taken by the local politicians in your region to promote the production and use of renewable energy within the last 2 years?



TABLES

TOTAL INQUIRY – ALL RESPONDENTS:

The statistical uncertainty with totally 358 replys is calculated to max +/- 5,2%

- Any technology for production of electricity impacts the environment to some extent. I will now mention a number of different technologies in random order for you. Please, tell me how much you think these technologies impact the environment - with regard to direct pollution as well as in the form of noise and visual impact in the nature. You must answer on a scale from 1 to 5. 1 means very little or no impact and 5 means very big impact on the environment. If you don't know the technology, you must answer "don't know".

PER CENT	Resp.	1 Very little/ none	2	3	4	5 Very big	Don't know	4 + 5
Coal power plant	358	1%	3%	13%	25%	53%	5%	78%
Waste incineration power plant	358	2%	15%	33%	32%	12%	6%	44%
Nuclear power plant	358	25%	16%	15%	8%	30%	6%	38%
Biogas power plant (liquid manure & organic waste)	358	11%	30%	32%	11%	6%	10%	17%
Natural gas power plant	358	11%	35%	36%	7%	2%	8%	9%
Windmill, landside	358	63%	28%	6%	2%	1%	0%	3%
Windmill, seaside	358	82%	13%	3%	1%	1%	1%	2%
PV system on roof or facade	358	80%	15%	2%	1%	0%	2%	1%

- What is the share of green electricity (for instance electricity from wind, biomass, PV) on the electricity production in Denmark ?
Do you think it is about

PER CENT

5%	40%
25%	54%
50%	6%

Respond.(=100%)	358
-----------------	-----

I can inform you that about 25% of the electricity production in Denmark is coming from renewable energy sources.

- Do you know that EU is aiming at increasing the share of electricity production from renewable energy substantially in the years to come ?

PER CENT

Yes	36%
No	64%

Respond.(=100%)	358
-----------------	-----

4. I will now mention some of the reasons that EU wants to increase the share of renewable energy for generation of electricity. For each of the reasons I will ask you to tell me how important you think it is on a scale from 1 to 5. 1 means very little or no significance and 5 means very big significance.

PER CENT	Resp.	1 Very little/ none	2	3	4	5 Very big	Don't know	4 + 5
Reduce pollution from traditional coal power plants	358	2%	3%	11%	20%	63%	2%	83%
Reduce dependence on coal and oil from countries outside EU	358	3%	7%	21%	26%	39%	4%	65%
Mitigate the impact from increasing energy prices on the global market	358	2%	8%	29%	29%	27%	5%	56%
Reduce the emission of greenhouse gasses which lead to global climate changes	358	1%	4%	11%	20%	62%	2%	82%
Increase employment	358	8%	18%	19%	15%	37%	3%	52%
Increase security of power supply	358	4%	9%	22%	23%	39%	3%	62%

5. Do you know of one or more initiatives taken by the local politicians in your region to promote the production and use of renewable energy within the last two years ?

PER CENT

Yes	11%
No	89%
Respond.(=100%)	358

BACKGROUND DATA:

6. Your age?

PER CENT

18-29 years	12%
30-39 years	22%
40-49 years	23%
50-59 years	19%
60 years or higher	23%
Respond.(=100%)	358

7. Where do you live?

PER CENT

Copenhagen municipality	28%
Frederiksberg municipality	6%
Copenhagen county	33%
Frederiksborg county	22%
Roskilde county	11%
Respond.(=100%)	358

8. Sex?

PER CENT

Woman	54%
Man	46%
Respond.(=100%)	358