

Bern, 4 June 2018

### **Addendum to the press release on the acceptance study**

## **Hybrid overhead lines: More power, not more power lines**

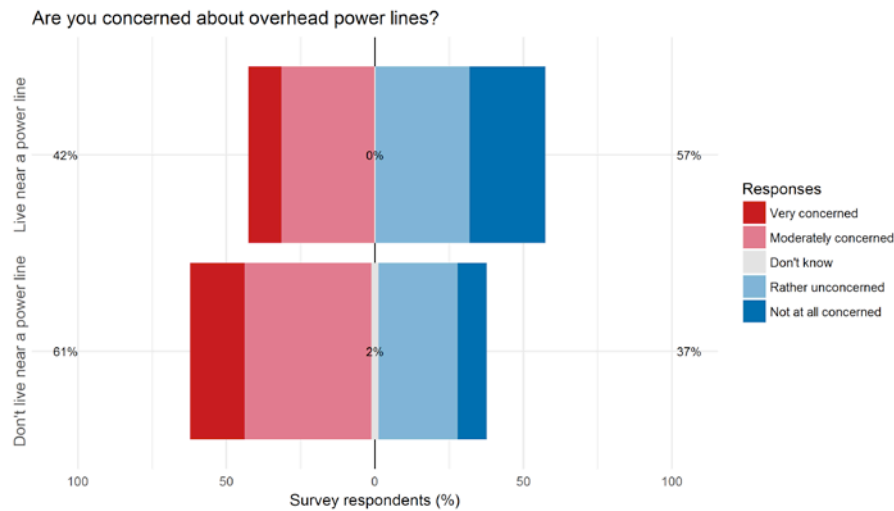
The study on acceptance of hybrid overhead lines was undertaken in conjunction with the “Energy Survey 2016” as part of the NFP-71 project “Acceptance of Renewable Energy”. The survey was led by Prof Isabelle Stadelmann-Steffen, of the Institute for Political Science and the University of Bern. The representative sample of around 1300 individuals reflects the sociodemographic characteristics and political distribution of the Swiss population.

The main challenge in surveying attitudes towards new technologies is that people do not possess all the information they need to have to form a solid opinion and consequently may lack a clear preference. This must be taken into account when asking people about their attitudes to ensure valid results. The researchers addressed the issue by randomly dividing respondents into four groups and formulating the questions for each group slightly differently. In particular, the four groups were provided with varying amounts of information on the need for grid expansion and the potential disadvantages of the new technology.

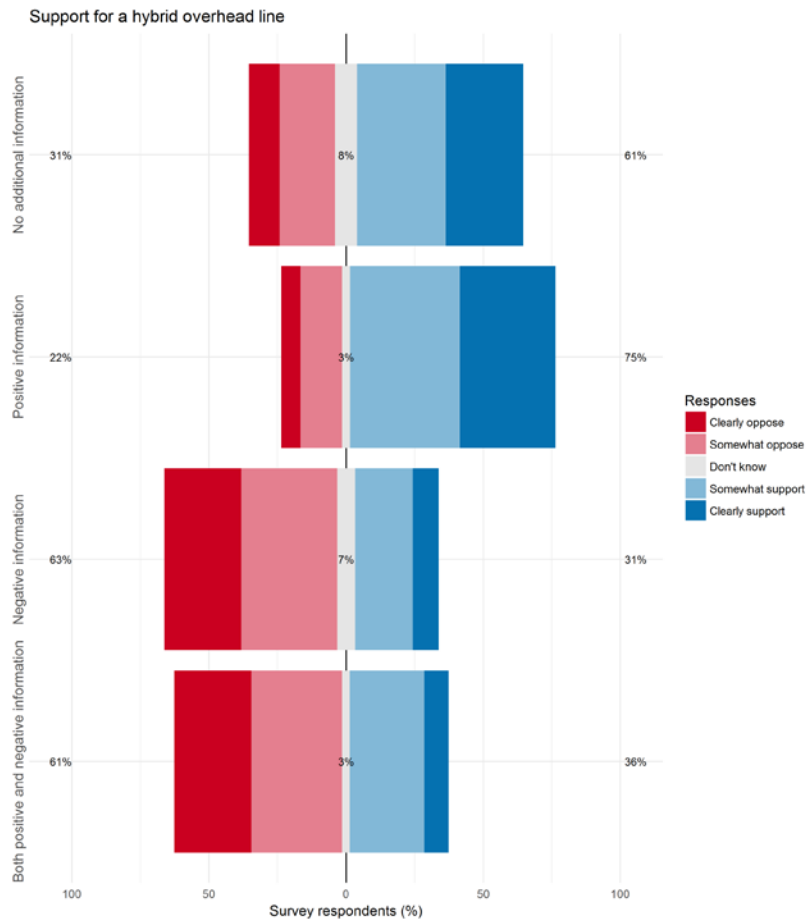
The survey revealed key insights into existing attitudes towards hybrid overhead lines and approaches to gaining acceptance for this new technology.

- 1) Personal experience with high-voltage lines is associated with higher acceptance:** Fears about the negative effects of high-voltage lines on humans and nature are prevalent among the population. These concerns are a barrier to grid expansion in general and also affect attitudes about hybrid overhead lines. But there is less opposition to high-voltage lines among people who live near them. For example, around 60 per cent of survey respondents who do not live near a high-voltage line have concerns about them, compared with 40

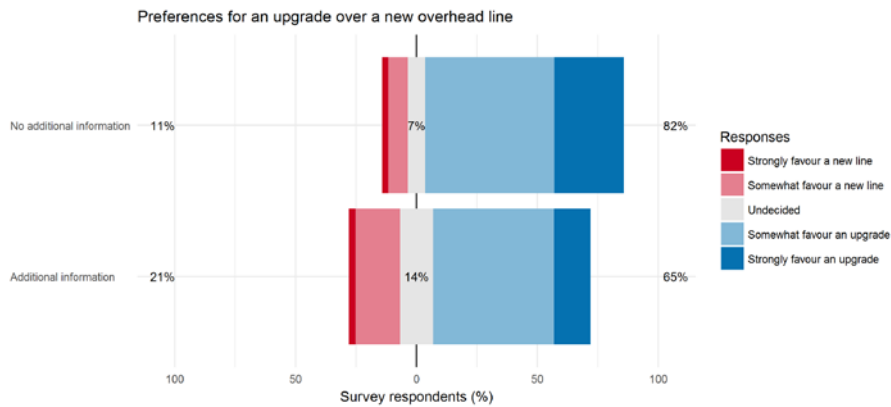
per cent of people who do live near them. Thus, concerns about high-voltage power lines are often based on vague fears that for many have no basis in reality.



**2) What people think depends strongly on what they hear:** What respondents were told about the importance of grid expansion and the possible negative impacts of the new technology affected their support for it to a greater or lesser extent. For example, information about potential negative effects such as noise and electric fields led to broad opposition among more than 60 per cent of survey respondents, whereas just as many respondents (60 per cent) who were not told this information were in favour of the technology. Of the people who were told about the necessity of expanding the grid, no less than three quarters were in favour of a hybrid line.



**3) Given the choice, most people decided in favour of the new technology:** Although the survey did not show overwhelming support for hybrid overhead lines, the odds for political implementation are not bad. This is due to the fact that conventional new lines are less popular than upgrades to existing overhead lines. In other words, when the question wasn't whether grid capacity should be expanded but rather how it should be done, a clear and consistent majority of survey respondents favoured the new technology. Nevertheless, information about its potential negative environmental impacts still had a strong influence on respondents' preferences. Without being told of these impacts, 82 per cent of respondents favoured a hybrid overhead line over a new conventional one. Given the information, however, only 65 per cent favoured the hybrid line.



## Contact

Prof Dr Isabelle Stadelmann-Steffen  
 University of Bern  
 Institute of Political Science  
 Fabrikstrasse 8  
 3012 University of Bern  
 Tel.: +41 (0)31 631 83 55  
 E-mail: [isabelle.stadelmann@ipw.unibe.ch](mailto:isabelle.stadelmann@ipw.unibe.ch)

## Acceptance of renewable energy

<http://www.nfp71.ch/de/projekte/modul-4-akzeptanz/projekt-stadelmann-steffen>