



Solar Energy: Jobs and Technology

Learning from Developments in Norway and Germany 2001-2015



Hanne Sjøvold HANSEN¹

MSc in Innovation and Entrepreneurship

University of Oslo/Bergen University College

Research assistant

with

Åge Garnes, Professor, Bergen University College

Tom Skauge, Associate Professor, University of Oslo/Bergen University College

¹ *Contact details of corresponding author*

Tel: +47 901 36 660

e-mail: hannahans1@gmail.com

Address: Hørløcksveg 57D, 7058 Jakobsli, Norway

Abstract

Several papers have addressed the subject of development of the photovoltaic (PV) industry in Norway, but they lack discussion of recent developments, other PV technologies, and job creation¹⁻³. With a mixed method approach of text analysis⁴ and supplementary interviews, our contribution to this field is to discuss the PV industry's contribution in generating jobs in Norway, by comparing it with the situation of Germany. Mirroring with a country with similar governance, while dissimilar size and energy mix, may uncover learning that has not previously been considered.

Three trends in the number of PV jobs in Norway are uncovered: a growth (2001-2010), a rapid decline (2010/2011), followed by a new growth (2011-2015). The strategy tripod⁵ reveals a complex explanation for these trends. The first trend shows to, primarily, be a result of prior competence built on the expertise developed historically in the Norwegian metallurgical industry, and contracts with foreign suppliers. The second trend reflects the Chinese government's incentives, resulting in a price war in the PV market, as the main reason for the decline. The third trend, which is unlike the German development, reveals, mainly, to be a result of focus on a different technology, in addition to experience from a concentrated part of the value chain supplemented with enthusiasm and community spirit. These explanations goes to show that all of the three parts of the strategy tripod, in addition to its combined effects, are necessary for an adequate conclusion of the development of PV jobs in Norway. At the end, the result shows several implications for future job creation in the PV industry in Norway.

References

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³Koesah D., 2013. "Understanding The Growth of Renewable Technology". Master thesis at the University of Oslo

⁴IEA PVPS, 2001-2015. "National Survey Reports" For Norway and Germany. (iea-pvps.org/index.php?id=93)

⁵Peng M. W., Sun S. L., Pinkham B., Chen H., 2009. "The Institution-Based View as a Third Leg for a Strategy Tripod". Academy of Management Perspectives, 23(3), pp.63-81.

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