



User-Centred
Energy Systems

Sweden's Integrated Energy and Climate Plan: An analysis

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I. Introduction

Sweden has positioned itself internationally as a forerunner of sustainable energy technologies (even at the household level) and progressive climate policies in line with the Paris Agreement (Ring et al 2022). Simultaneously Sweden is globally known as an advocate of gender equality and welfare proudly discussed in state policies as well as wider societal discourses (Arora Jonsson 2009). Historically this is the image of Sweden irrespective of political affiliations (be it the Social Democrats or Conservatives) the governments have tried to present to the outside world. In this context we conduct a critical analysis of Sweden's Integrated Energy and Climate Plan or ¹The National Energy and Climate Plan (NECP), an externally facing key document at EU level for communicating these issues, through an energy user's perspective adopting a social/gender justice lens. How is such image of Sweden as champion of gender equality and promoter of welfare policies holding when digging deep into a key document of this kind?

The rest of our analysis is organized as follow. Section II illustrates the technocratic nature of the document. Section II examines Sweden's NECP through a gender justice lens. Section III identifies and discusses the social aspects covered in the document with a special emphasis on the concepts of "energy poverty" and "hard to reach energy users". Section IV concludes.

II. Beyond Rhetoric: Justice Considerations in Sweden's Energy and Climate Plan

Sweden's Integrated Energy and Climate Plan appears like a highly technical document with emphasis on mitigation targets and mechanisms for enhanced energy efficiency as well as cost effective supply (See Fig 1). The executive summary of the document emphasizes that the energy and climate policy in Sweden reflects "*the three pillars of energy cooperation in EU namely ecological sustainability, competitiveness, and security of supply*" (Sweden's NECP, pp.4). While these are indeed critical aspects in the energy transitions phase, the integrated energy and climate plan presented by Sweden, the supposed forerunner advocating for socially just and gender just energy transitions, fails to engage with the justice element of the energy transitions process and ironically the word justice doesn't appear even once in the document. There is only a passing mention of "just transitions" in relation to costs and benefits and cost effectiveness (Sweden's NECP, pp.2). Neither the executive summary nor the policy text gives due emphasis to this aspect. This may be an example of how the policy is influenced

¹ The National Energy and Climate (NECP) Plan is a ten year integrated document that is mandated by the European Union (EU) to its member countries where they integrate their energy and climate plans to aid the EU in meeting its overall greenhouse gases emissions targets See https://ec.europa.eu/info/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en.

III. The Gendered Nature of Sweden’s NECP

Gender Mainstreaming is addressed in a separate section in the document (Sweden’s NECP, pp 72) and reflects Sweden’s long-standing adherence to principles of “*jämställdhet*”, the Swedish term for gender equality which became popular in the 1990s. Results from a word cloud analysis of the text under gender mainstreaming reveals that “equality” (*jämställdhet*) is the most frequently used word in this section (See Fig 2).



Fig 2: Word cloud analysis of the gender mainstreaming section (Sweden’s NECP, pp 72).

To emphasise the importance, the document states that “*Equality in turn is a human right and establishes that society must give women, men, girls and boys the same rights, resources, protection and opportunities*” (Sweden’s NECP, pp 72). The document also explicitly acknowledges the underrepresentation of women in climate policy even though no corrective measures are suggested (ibid). However, the narrative also slips into the virtue and vulnerability classifications where women are talked about as vulnerable entities and custodians of local knowledge without alluding to underlying power imbalances (Arora-Jonsson 2011). Such language has a tendency to derive women their agency and has historically created a numbers game in which the gender un-equal culture is not addressed, only using women as place-holders in a patriarchal structure (Hultman et.al., 2021). A critical examination of the section on gender mainstreaming alludes to an overarching emphasis on visualizing gender as underrepresentation without acknowledging women’s role as users and producers in the energy transitions.

The plan also elaborates on Sweden’s feminist foreign policy and its efforts to promote gender equality in all relevant EU processes as well as internationally. There is an overt focus on positioning Sweden as a leader in promoting gender equality in other parts of the globe even though there is limited discussion on the national scenario and initiatives. This observation aligns with the research done by Arora-Jonsson (2009, pp.218) who argues that Sweden’s term for gender equality, *jämställdhet* often leads to adoption of a gender-neutral approach



that conceals issues like gendered political order and the continued subordination of women. Besides Arora-Jonsson, other scholars such as de los Reyes, Molina, and Mulinari (2002, 306) reiterate that *jämställdhet* in practice served as a way of distinguishing Sweden from the rest of the world, as well as its immigrant populations and advancing its self-image as a gender equal welfare state in which it can present itself as a global leader. Thus because of the perceived gender neutrality of *jämställdhet* seen in terms of equal opportunities and resources it becomes difficult to pursue gender politics in Sweden and the gender politics become externally facing.

IV. The missing “Energy Users Perspective”

As argued above Sweden’s NECP significantly lacks a users’ perspective, especially around issues such as energy poverty and driving behavioural change towards just and sustainable energy use practices. The document reflects the general sentiment among the policymakers in Sweden where there is no distinction between energy poverty and poverty in general and further mentions that this aspect is addressed within social policy (Sweden’s NECP, pp 38, 75, von Platten, 2021). However, as Ring et al. (2022) indicate there is no further elaboration of the term “social policy or poverty”. Sweden’s submission includes a section on vulnerable customers defined as “persons who permanently lack the means to pay for the electricity or natural gas transmitted or delivered to them for non-business purposes” (pp 107, 108). There are several measures to protect this category of users including right to receive financial assistance for payment of bills. The document also points to the Electricity Act (1997:857) and the Natural Gas Act (2005:403) which contains various measures to protect the users from the risk of getting disconnected for non-payment or another breach of contract conditions (Sweden’s NECP, pp108).

There are two issues of concern here that we would like to highlight:

1. There could be temporary reasons for lack of being able to pay, socio-economic conditions, job market, energy price fluctuations etc; This group seems to be ignored by policy makers (Bouzarovski, S. and Petrova, S. 2015).
2. The concept of “warm rent” where rent included costs of heating has historically acted as a protector against energy poverty in Sweden (von Platten, 2021). However, the agreement settled between Sweden and the EU commission in 2019 deciding that individual metering and billing of energy for heating should be required in the worst-performing multifamily buildings which happens to be of renters from low-income households. This can potentially create a new category of energy poverty in the country. This demands urgent policy attention and more engagement with the concept of energy poverty than before.

The policy “warm rent” has served economically poor Swedes well. However, the new more neoliberal EU energy policy for multifamily buildings, shifts the responsibility of meeting the basic needs of a warm apartment towards the individual. In so doing Sweden risks encountering similar problems as in the UK, where energy poverty has been a major concern for several decades.

In the context of just transitions, there is also increasing attention globally to the concept of “hard to reach (HTR) energy users”. The IEA Users TCP Task defines hard to reach energy users as “an energy user from the residential or commercial sectors who uses any type of energy or fuel, and who is typically either hard-to-reach physically, underserved, or hard to engage or motivate in behaviour change, energy efficiency and demand response interventions that are intended to serve our mutual needs” (Mundaca 2021). The work by Ashby et al. (2020) reflecting on HTR users in Sweden identify that certain high income high use groups in Sweden are in the HTR category owing to the unsustainable energy use patterns and difficulty in motivating behavioural change. This difficulty in motivating behavioural change according to Bradley (2009) is also a representation of Swedish middle-class norms that entails behavioural change as something external and to be carried out by the so called “others” like the immigrant communities and other countries. While behavioural change is mentioned in a few places Sweden’s Integrated Energy and Climate Plan (pp 75,81, 173) there isn’t any engagement with the concept of HTR and the high energy users. This group seems both to be less researched and less targeted by political policies which comes as a surprise since changing behaviour in this group could have big effect shown by the few studies done (Stoddard et.al. 2021). Fig 3 provides a word tree analysis of how behavioural change is represented in the document.

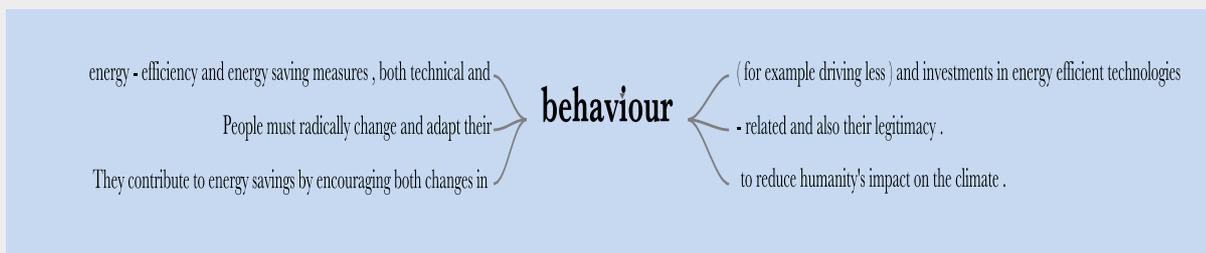


Fig 3: NVivo word tree analysis of “behaviour”

In addition, while the plan talks about renewable energy self-consumers and renewable energy communities and efforts to support self-generation it fails to engage with inequities in energy use that can affect these users. Sweden’s NECP thus fails to engage with “the hard-to-reach energy users” on both ends of the spectrum. Assuming that these are concerns which can be significant determinants of intra country climate justice, energy efficiency and just transitions, this dimension requires urgent policy attention.

Other social aspects relevant from a user’s perspective discussed in the NECP includes creation of new jobs in the climate/transitions sector (Sweden’s NECP, pp 163,175,57, 110, 40) as well as Socio-economic cost benefit analysis suggested for various interconnectivity schemes across member countries (Sweden’s NECP, pp 104). However, there is no further delineation of the gendered nature of these jobs created.

The NECP also indicates that there were stakeholder consultations organized around the plan where the stakeholders were defined as social partners, civil society and the general public (Sweden’s NECP, pp 10). However, as Ring et al. 2022 highlight, the comments raised during



these consultations, as indicated in Annex 1 of the NECP, did not address the household energy user's perspective nor social equity and justice concerns.

However, it is worth emphasizing Sweden's NECP includes provisions to enhance research on the societal aspects of energy through a Ten-Year National Research Programme for Sustainable Society which was launched in 2017. There is a special mention of energy research as a mechanism to make Sweden a world leader in research and innovation, knowledge, higher education and innovation thereby contributing to social development, welfare, competitive businesses and respond to the challenges facing society, both in Sweden and worldwide (Sweden's NECP, p 39). The NECP also points to the Information Security (Socially Important and Digital Services) Act as a key to achieve a high level of network and information-system security for socially important services in the energy, transport, banking, financial market infrastructure, health, drinking water supply and distribution, digital infrastructure and digital services sectors (Sweden's NECP, pp 101). While these are all laudable aspects there exists significant ambiguity in how this research process will be carried out. There is an inherent risk of such research being dominated by techno economic solutions if it fails to engage with the lively realities of different income and social groups and their daily intersections with "energy".

V. Conclusion

To conclude, despite Sweden's decades long strong foundations in social welfare and gender equality our analysis indicates that Sweden's NECP appears to be a highly technical document which engages with the question of gender only in terms of equal representation, missing the energy users' perspective and lacks commitment towards concerns of social and gender justice. It reflects the technocratic eco-modern approach dominant in Swedish energy policy of the last thirty years. While climate action and energy transitions indeed warrant technological solutions, the document fails to focus on the central question, "*Who are these technocratic interventions designed for and designed by whom*"? There isn't adequate representation of the unequal cost of climate change, climate action and energy transitions. While the concept of the world's first fossil fuel free welfare state sounds promising the lack of further engagement with the term leaves the readers with no understanding of the action plan or the measures taken to achieve the same, arguably a missed opportunity to outline its position as a supposed forerunner advocating for socially just and gender just energy transitions.



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