

# The Swedish regional energy agencies: past, present and future

Max Ohlsson  
Swedish Energy Agency  
Kungsgatan 43  
631 04 Eskilstuna  
Sweden  
max.ohlsson@energimyndigheten.se

Erika Strömvall  
Swedish Energy Agency  
Kungsgatan 43  
631 04 Eskilstuna  
Sweden  
erika.stromvall@energimyndigheten.se

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## Abstract

The Swedish Energy Agency is the responsible authority for energy and climate issues in Sweden and has been cooperating with the regional energy agencies in Sweden since 2003. The regional energy agencies, which are owned by county councils and/or municipalities, have played an important role in regional energy management. In this paper, we will highlight some aspects in the past and present collaboration between the Swedish Energy Agency and the regional energy agencies. Furthermore, representatives from relevant organisations will give their view on important aspects on the future collaboration. Since 2003, the regional energy agencies are responsible for coordinating the municipal energy and climate advisory service. The regional energy agencies were also appointed regional energy actors by the Swedish Energy Agency from 2004 to 2014. Since 2016, the mandate of the regional energy agencies at the regional level has been strengthened due to the new government decree on financial support for the advisory service which now gives them a more formal role. In addition, the collaboration within the National Regional Fund Programme has made them a formal partner to the Swedish Energy Agency. A role they have not possessed before. Both parties agree on that they wish for a deepened and developed collaboration in the future.

## Introduction

On November 4 2016, the Paris agreement from 2015 entered into force as the threshold for ratifying countries was achieved. The central aim of the Paris Agreement is “to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1,5 degrees Celsius.”<sup>1</sup> The energy and climate issues are integrated at several levels in society ranging from the United Nations (UN) and its Agenda 2030 goals, down to the individual itself. As a member state of the European Union (EU), Sweden is subject to energy and climate goals at EU, national, regional and local level.

The Swedish Energy Agency is the Swedish administrative agency for issues regarding supply and use of energy in the society. The Agency is committed to security of supply and a sustainable and cost effective energy system with low negative impact on health, environment and climate. The Swedish Energy Agency works to implement the policy instruments adopted by the Swedish Parliament and participating in international cooperation, among other to reach climate targets.<sup>2</sup>

At a regional level, 21 County Administrative Boards are appointed to be responsible to promote, coordinate and lead the regional work to implement the Swedish Government's policies in regards to transition of energy system and reduced climate impact.<sup>3</sup> In addition, 15 regional energy agencies work to increase the use of renewable energy and an efficient energy use

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1. United Nations (2016).

2. Swedish Energy Agency (2016) "Annual report".

3. Appropriation directions of County Administrative Boards (2016.)

with consideration to the national and international energy and climate goals at a regional level.<sup>4</sup>

#### AIM AND RESEARCH QUESTIONS

The aim of this paper is to highlight aspects that are important to consider as the cooperation between the Swedish Energy Agency and the regional energy agencies evolve to meet future challenges and to work towards the energy and climate targets. The goal is to describe the development of the cooperation between the Swedish Energy Agency and the regional energy agencies and to present some thoughts regarding a possible future cooperation. These opinions derive from representatives from both organizations.

It is highly important to stress that we are two Programme Managers at the Swedish Energy Agency, writing a paper for the eceee where we study the cooperation between a governmental agency and 15 regional non-governmental agencies. This will not be a policy paper, where we represent the Swedish Energy Agency's view on the regional energy agencies and how they have organized themselves. Instead, we want to write an explorative discussion paper, where we have interviewed people with experience of working in this field. We are aware that this discussion will not be for a fact, instead, much can happen which we cannot predict today. With this said, it is interesting to study and contribute to the eceee how the national and regional collaboration in the energy and climate field has developed throughout the years.

Based on the above discussion the research questions will be:

- What joint efforts have the Swedish Energy Agency and the regional energy agencies implemented together to contribute to the Swedish climate and energy targets?
- What present efforts are conducted by the Swedish Energy Agency and the regional energy agencies to contribute the Swedish climate and energy targets?
- What view do the Swedish Energy Agency and the regional energy agencies have on their future collaboration and contribution to reach the Swedish climate and energy targets?

#### LIMITATIONS

This paper will focus on the Swedish perspective and the collaboration between the Swedish Energy Agencies and the Swedish regional energy agencies. The paper will only include the work of the local energy agencies conducted in cooperation with the Swedish Energy Agency. Therefore, a large proportion of their work will not be mentioned in this context. The paper will also leave out other regional and local actors working on energy and climate issues. Because the structure and ownership of the regional energy agencies differs greatly, there are difficulties in capturing the views of all 15 regional energy agencies in Sweden. Therefore, the chairwoman of the Regional Energy Agencies in Sweden was selected to represent the general view of the regional energy agencies. We chose not to interview a representative from the County Administrative Boards because we wanted to focus exclusively on the collaboration between the Swedish Energy agency and the regional energy agencies.

4. Energy agencies of Sweden (2016).

#### OUTLINE OF THE PAPER

The background chapter will present the Swedish Energy Agency in a policy context, what tasks the agency has and how it is governed. We will also present the regional energy agencies, and the Swedish energy and climate targets. In the method chapter, we will present how we have gathered the data we have used to answer our research questions. The result of the paper will be divided into three sections namely; past, present and future. The past section extends from 2003 to 2015 and the present section marks the years of 2015 and 2016. The future perspective will however be framed more as in a discussion. In the conclusion chapter, we will draw some general conclusions and highlight some aspects that could be considered for future collaboration.

### Background

#### GOVERNANCE IN SWEDEN

In Sweden, the central state administration consists of the Government, the Government Offices and the government agencies. The Swedish public administration, and especially the central administration, is organized in a somewhat unique way. Compared to other European countries, Sweden has rather small ministries with few civil servants employed, instead the vast majority is employed by government agencies. The government agencies are often the ones implementing government policies.

The Swedish Energy Agency is a government agency located in Eskilstuna with around 350 employees.<sup>5</sup> The agency is responsible for energy and climate issues in Sweden. The Swedish Energy Agency has several cooperation, both nationally and internationally, including International Energy Agency, the Nordic Council and the European Union. The work and collaboration within the European Union is guided by a number of directives.<sup>6</sup>

On the webpage of the Swedish Energy Agency it is stated that "The Swedish Energy Agency is subordinate to the Ministry of the Environment and Energy, and regulated by the Government through the instruction and annual appropriations directives. Parliament and the Government decide on the assignments and budget of the Agency".<sup>7</sup>

Furthermore, to implement government policies at regional level, there are 21 county administrative boards, which all have a government instruction, like any government agency.<sup>8</sup> At local level there are 290 municipalities.

#### THE REGIONAL ENERGY AGENCIES

The first regional energy agencies in Europe were initiated in the 1980s with the purpose to promote energy efficiency and a transition from fossil fuels towards renewable energy sources.<sup>9</sup> The first Swedish regional energy agency was started in 1996 within the EU SAVE II programme.<sup>10</sup> The programme was adopted by the European Commission for a period of five years

5. Swedish Energy Agency (2015) "Annual report" p. 9.

6. Swedish Energy Agency (2016) "The European Union".

7. Swedish Energy Agency (2016) "About us".

8. OECD 2010:149.

9. North Sweden energy agency (2016) "About us".

10. Kommunförbundet Västernorrland (2017) "Energikontoret i Västernorrland".

(1996–2000) and was dedicated to promote energy efficiency and encouraging energy-saving behaviour.<sup>11</sup> The majority of the Swedish regional energy agencies was started within the SAVE II Programme. During an initial period of three years, the agencies received financial support from EU through programme. After that, the owner of the regional energy agency was responsible for the core funding.<sup>12</sup>

Today there are 15 regional energy agencies, covering Sweden from Skåne energy agency<sup>13</sup> in the south to North Sweden energy agency<sup>14</sup> in the north. Many of the regional energy agencies follow the same geographical division as the 21 counties in Sweden. However, there are some agencies that cover the surface of two or more counties. The geographical division of the regional energy agencies depend on the ownership of the agency and the fact that some regions have chosen to cooperate regarding the energy agencies. Energy Agencies of Sweden is the coordinator of the Swedish regional energy agencies. According to them, the tasks of the regional energy agencies are to work for an increasing use of renewable energy and an efficient use of energy in their region with consideration to the national and international goals of energy and environment. In Europe, there are around 450 regional energy agencies with similar purposes.<sup>15</sup>

The regional energy agencies are not governmental, instead their ownership can be distinguished into two types; one is the association of local authorities (municipalities) and the other is the regional federation (counties councils). It differs how much core funding they receive from their owners, and this makes them more or less dependent on financing from external sources. They can participate in calls for tenders that are announced by the public sector or by EU initiated projects. Today, the areas that the regional energy agencies work with are among other; energy efficiency, transportation and travels, renewable energy, buildings and properties.<sup>16</sup> Their target groups are households, regional actors and small and medium enterprises (SMEs).

#### THE SWEDISH CLIMATE AND ENERGY TARGETS

Swedish energy policy is based on the legislation adopted within the EU and the targets of the EU constitute the basis for the adopted energy and climate targets in Sweden.<sup>17</sup> The climate and energy targets adopted by the Swedish Parliament specify that:<sup>18</sup>

- The proportion of renewable energy shall be at least 50 per cent of the total energy use by 2020.
- The proportion of renewable energy in the transport sector shall be at least 10 per cent by 2020.
- The energy consumption shall be 20 per cent more efficient in 2020 compared to 2008. This target is cross sectoral and includes every step of the energy system.

- The emissions of greenhouse gases shall be reduced by 40 per cent in 2020 compared to 1990. This target relates to activities not covered by the EU Emissions Trading System.

In addition, the Swedish Parliament has a long-term ambition that the vehicle fleet shall be fossil free by 2030.<sup>19</sup>

In November 2016, five of the eight parties constituting the Swedish Parliament agreed on an energy efficiency target stating that the Swedish energy consumption shall be 50 per cent more efficient in 2030 compared to 2005 expressed in terms of energy input in relation to GDP. The target for energy efficiency is in line with the EU's ambition of 30 per cent reduction on absolute energy consumption by 2030 and with the EU using 2005 as reference year for future energy efficiency targets.<sup>20</sup>

#### THE MUNICIPAL ENERGY AND CLIMATE ADVISORY SERVICE

The Swedish Energy Agency is responsible for supporting the local and regional actors in efforts to coordinate and develop the municipal energy and climate advisory service.<sup>21</sup> In accordance with Regulation (1997:1332) and (2016:385) on grants for municipal energy and climate advisory service, funds may be granted by the Swedish Energy Agency to municipalities for energy and climate advisory service. Information is provided locally and regionally through the energy and climate advisors. The advisory service offers a free and commercially independent service targeted at households, organisations and SMEs.<sup>22</sup> Regulation (2016:385) state that the advisory service shall facilitate an efficient and environmental friendly energy use, reduction of climate impact from energy use and promote the parliamentary energy and climate policy targets.<sup>23</sup>

#### THE NATIONAL REGIONAL FUND PROGRAMME

The National Regional Fund Programme is based on the Europe 2020 Strategy for smart, sustainable and inclusive growth. The aim of the programme is to add value to regional growth activities by supplementing the actions being carried out in the eight regional Structural Fund programmes. The programme aims to identify and enable synergies between regional, national and European policy.<sup>24</sup>

A project can receive funds in one of the three priority axes: "Strengthen research, technological development and innovation", "Enhance the competitiveness of SMEs" and "Supporting the transition to a low carbon economy in all sectors".<sup>25</sup>

The aim of the priority axis "Supporting the transition to a low carbon economy in all sectors" is to promote energy efficiency and the use of renewable energy in SMEs. It is implemented in the form of a national intervention to encourage SMEs to make their operations energy efficient and thus become more competitive.<sup>26</sup>

11. Manage Energy (2017) "SAVE II Programme 1998–2002".

12. Skåne energy agency (2016) "Skåne energy agency".

13. Skåne energy agency (2016) "Skåne energy agency".

14. North Sweden energy agency (2016) "About us".

15. Energy agencies of Sweden (2016) "Energy agency of Sweden".

16. Mälardalen energy agency (2016) "Verksamhetsområden".

17. Swedish Energy Agency (2015) "Energiläget".

18. Prop. 2008/09:163. En sammanhållen klimat- och energipolitik.

19. Swedish Energy Agency (2015) "Energiläget".

20. Sveriges regering (2016) "Överenskommelse om Sveriges mål för energieffektivisering".

21. Appropriation directions of the Swedish Energy Agency (2016).

22. Swedish government decree (1997:1332) and (2016:385).

23. Swedish government decree (2016:385).

24. Swedish Agency for Economical and Regional Growth (2016).

25. Swedish Agency for Economical and Regional Growth (2016).

26. Swedish Agency for Economical and Regional Growth (2016).

## Methodology

The paper is based on a qualitative research method. Firstly, we talked to colleagues who have been working with regional energy agencies for a long time, asking them to recommend people to interview. This is labelled as “Snowball sampling”, which is a technique, where the researcher asks relevant people to suggest other persons to interview.<sup>27</sup> Totally, we conducted six interviews. The interviews we conducted were of semi-structured character.<sup>28</sup> The interviews lasted for around one hour, and both authors were both present. This is a strength since both were given the same information and could follow up with questions. The interviews were conducted in Swedish and we have translated the quotes into English.

Further, we have used official documents both from the Swedish Energy Agency and the regional energy agencies, as well as evaluations made by consultants.

## Results

### PAST

In 2002, a Swedish energy policy program ranging from 2003 to 2007 was adopted. The program stipulated that the Swedish Government beginning in 2003 aimed to provide resources to the regional energy agencies. The proposal stated that “Local and regional initiatives should be encouraged through increased resources to the municipal energy advisory service and support to the regional energy agencies.”<sup>29</sup>

Since 2003, the Swedish Energy Agency has given the regional energy agencies a mandate to coordinate the municipal energy and climate advisory service within each region by organizing networking and education events and exhibitions.<sup>30</sup> From 2003 to 2013, the regional energy agencies were responsible for training the energy and climate advisors. As from 2014, the Swedish Energy Agency is responsible for the training.<sup>31</sup>

Between 2003 and 2013, the Swedish Energy Agency organized an annual conference. During the conference, representatives from the regional energy agencies, the Swedish Energy Agency and the energy and climate advisors were attending.<sup>32</sup> The conference provided a forum for exchange of experiences and joint development of the advisory service.<sup>33</sup>

Over the years, the Swedish Energy Agency has worked to develop the municipal energy and climate advisory service. The work has been conducted in collaboration both with the energy and climate advisors and the regional energy agencies. The goal has been an effective advisory service with a clear mandate, a better adaption to the target group and improved monitoring.<sup>34</sup>

From 2010 to 2014, another five-year energy efficiency program was conducted in Sweden. The Government proposition established that the energy policy program ranging from 2003

to 2007 had made “the role of the regional energy agencies more developed and solid, both when coordinating the municipal energy and climate advisory service and in their work as regional energy actor.”<sup>35</sup> In the same proposition, the municipal energy advisory service was mentioned as “important actors within the government’s efforts to enhance the local and regional networks for energy efficiency.”<sup>36</sup>

Between 2004 and 2014, the regional energy agencies were appointed regional energy actors by the Swedish Energy Agency. As an energy actor, the agencies should be the authority possessing knowledge regarding energy within their region. Their mission was to build and manage regional networks for energy efficiency and renewable energy.<sup>37</sup> The role as a regional energy actor was not clearly expressed though. The representative of the energy agencies of Sweden described the mission as “(...) very needs-based. The energy agencies themselves assessed what needed to be done in each region.”<sup>38</sup> When the funding from the Swedish Energy Agency related to regional energy actors ceased in 2014, many regional energy agencies continued as regional energy actors within their region. In the cases this assignment still exists, the role as regional energy actor is funded by the owners of each regional energy agency.<sup>39</sup>

In 2008, the Swedish Government gave the County Administrative Boards a mandate to “based on their regional condition and in consultation with regional and local actors, the municipalities, the Swedish Energy Agency and the Swedish Environmental Protection Agency coordinate and run the Governmental energy and climate work [at local and regional level]. The County Administrative Boards should promote transition of the energy system in the relevant sectors at the regional level. Furthermore, the County Administrative Boards should work to increase the proportion of renewable energy (...) and promote energy efficiency.”<sup>40</sup> Since the mandate of the County Administrative Boards was very similar to the work of the regional energy agencies, some confusion regarding the division of responsibility within energy and climate issues at a local and regional level arose. A former head of unit at the Swedish Energy Agency confirms this by stating that “the regional energy agencies considered themselves as a knowledgeable regional actor and then suddenly the County Administrative Boards got a mandate that in many ways was very similar to their work. Due to this, the regional energy agencies felt overlooked.”<sup>41</sup> A current head of unit at the Swedish Energy Agency confirms that “After 2008, when the County Administrative Boards were given the mandate to strategically work with energy issues and develop regional energy and climate strategies, the division of responsibility was unclear among the municipalities and others”<sup>42</sup>. This confusion among local and regional actors remained until 2014.

The position of the Swedish Government is in this paper represented by a Deputy Director at the Swedish Ministry of

27. Bryman, Alan (2016):415.

28. Bryman, Alan (2016):468.

29. prop. 2001/02:143. Samverkan för en trygg, effektiv och miljövänlig energiförsörjning.

30. Swedish Energy Agency “Annual report” 2003, 2004, 2005, 2006, 2007.

31. Programme Manager at the Swedish Energy Agency.

32. Swedish Energy Agency “Annual report” 2003 and 2013.

33. Swedish Energy Agency “Annual report” 2005.

34. Swedish Energy Agency “Annual report” 2014.

35. prop 2008/09:163. En sammanhållen klimat- och energipolitik.

36. prop 2008/09:163. En sammanhållen klimat- och energipolitik.

37. Swedish Energy Agency “Annual report” 2004 and Dnr: 2012-08220. Ekonomiskt stöd till de regionala energikontoren 2013–2014.

38. Director of the Energy Agency of Sweden.

39. Director of the Energy Agency of Sweden.

40. Appropriation directions of County Administrative Boards (2008).

41. Former Head of Unit at the Swedish Energy Agency.

42. Head of Unit at the Swedish Energy Agency.



Environment and Energy. He reaffirms the similarity of the two actors' commitments when stating "Since 2008, the County Administrative Boards (...) have been commissioned by the Swedish government to coordinate development and implementation of regional climate and energy strategies, including regional climate and energy targets and action plans to 2020."<sup>43</sup> Furthermore, he states that "In some regions but not all, they [the regional energy agencies] initiated development of regional energy strategies before the County Administration Boards where commissioned to do so by the government. Since 2008, all regional energy agencies have been involved in the work on regional strategies."<sup>44</sup>

On a final note, the Deputy Director at the Swedish Ministry of Environment and Energy acknowledge the importance of the regional energy agencies with the following comment: "The regional energy agencies (...) have long since played an important role in regional energy management, mainly by initiating activities from a bottom-up perspective, with no clear commission from the Swedish government."

### PRESENT

In 2015, the Swedish Energy Agency was assigned to contribute in the implementation of the National Regional Fund Programme within the priority axis "Supporting the transition to a low carbon economy in all sectors".<sup>45</sup>

At that time, some confusion regarding the division of responsibility within energy and climate issues at a local and regional level still remained. Therefore, the Swedish Energy Agency invited representatives from the regional energy agencies and the County Administrative Boards to several meetings with the aim to clarify the roles within the energy and climate work at the regional level. These meetings were conducted during the same time as the applications for funds from the National Regional Fund Programme were formulated. The representative of the energy agencies of Sweden recall that "At the time the National Regional Fund Programme was presented, representatives from the regional energy agencies and the County Administrative Boards were invited to a meeting. It was a historical meeting. (...) We produced a document stating that the County Administrative Boards have a coordinating role and the regional energy agencies have an operational and supporting role at the regional level. (...) The dialog developed rapidly and today [December 2016], the dialog and the collaboration between the Swedish Energy Agency, the regional energy agencies and the County Administrative Boards has improved significantly."<sup>46</sup>

Within the National Regional Fund Programme, the Swedish Energy Agency carries out efforts to remove barriers to energy efficiency in SMEs. Some of the efforts undertaken by the Swedish Energy Agency is conducted in collaboration with regional energy agencies and county administrative boards. The projects promote systematic and long-term work with energy efficiency in SMEs. The efforts should also result in the dissemination of

projects' results and exchange of experiences with enterprises and experts within the field.<sup>47</sup>

The Swedish Energy Agency and the European Regional Development Fund finances the projects with 50 percent each. This is the first time the Swedish Energy Agency and the regional energy agencies have applied for funds and run projects in collaboration. The Swedish Energy Agency initiated the planning and application for funds together with the regional energy agencies and the County Administrative Boards during 2015. The same year, some of the projects were launched.<sup>48</sup>

The two projects carried out as a collaboration between the Swedish Energy Agency and the regional energy agencies within the National Regional Fund Programme are described in the next two paragraphs.

In collaboration with regional energy agencies and county administrative boards, the Swedish Energy Agency runs 40 regional energy efficiency networks for SMEs. The activities within the networks extends for either three or four years and the method used is based on both Swedish and international research as well as practical experience from Sweden, Germany and Switzerland. Each network is run by a network coordinator employed by either a regional energy agency or a county administrative board.<sup>49</sup>

The Swedish Energy Agency and the regional energy agencies are together running a project where SMEs are offered support before, during and after conducting an energy audit. The project is closely linked to the Swedish national energy audit program and aims to enhance the impact of the program by helping SMEs to work systematically and structured with energy efficiency after conducting an energy audit. The project is administrated by the Swedish Energy Agency while the regional energy agencies are responsible for the direct support to the SMEs.<sup>50</sup>

In addition to the collaboration within the National Regional Fund Programme, the regional energy agencies still constitute an important part of the municipal energy and climate advisory service when supporting and coordinating the work of the municipal energy and climate advisors.

In 2015, a review of the municipal energy and climate advisory service was initiated. The review resulted in a new government decree on financial support for the municipal energy and climate advisory service. Unlike the previous decree on financial support, the regional energy agencies are now mentioned as coordinators of the municipal energy and climate advisory service. The Deputy Director at the Ministry of Energy and Environment stated that "In 2016, the Swedish Government amended the government decree on financial support for municipal energy and climate advisors, giving the regional energy agencies a formal role as coordinators. It is also explicitly stated that regional energy agencies can get financial support for their activities. The reason behind is that the Swedish government wanted to clarify in a formal manner the role of regional energy agencies in the implementation of national energy policies."<sup>51</sup>

43. Deputy Director at the Swedish Ministry of Environment and Energy.

44. Deputy Director at the Swedish Ministry of Environment and Energy.

45. Government decree of the Swedish Energy Agency (2015).

46. Director of the Energy Agencies of Sweden.

47. Swedish Energy Agency "Annual report" 2015.

48. Swedish Energy Agency "Annual report" 2015.

49. Swedish Energy Agency "Annual report" 2015.

50. Swedish Energy Agency "Annual report" 2015.

51. Deputy Director at the Swedish Ministry of Energy and Environment.

## FUTURE

The actors responsible for energy and climate issues at local and regional level are still experiencing that the roles are unclear, despite the fact that the County Administrative Boards have been responsible for strategic energy and climate issues at the regional level since 2008. According to a Head of Unit at the Swedish Energy Agency “A certain amount of uncertainty still exists [regarding the division of responsibility between the County Administrative Boards and the Regional Energy Agencies], who does what?”<sup>52</sup> In addition, the Programme Manager expresses that “It is important to clarify the division of responsibility between the regional actors.”<sup>53</sup>

One question is how the parties could work together in the future to implement energy and climate targets, but also who should execute what tasks. One example that the representative from the energy agencies of Sweden expressed is that “I believe in a collaboration between the Swedish Energy Agency, County Administrative Boards and the regional energy agencies. The Swedish Energy Agency would be the leading party, the county administrative board would be the coordinating party and the regional energy agency is a resource of competence and an operative party.”<sup>54</sup> One Head of Unit at the Swedish Energy Agency expresses himself in a similar way, when stating: “I do not believe that it is so hard to describe a division of roles. (...) The County Administrative Boards has a clear mandate to present this strategy [strategies for energy and climate related issues at a regional level] and of course they need to cooperate with the regional energy agencies to present it.”<sup>55</sup>

Today, governing documents contains clear descriptions regarding the mandate of regional energy agencies concerning the municipal energy and climate advisory service. Both representatives from the Swedish Energy Agency and the energy agencies of Sweden request similar wordings regarding other mandates. In that way, the division of responsibility would be clearer. The representative from the energy agencies of Sweden states that “The energy agencies of Sweden would appreciate a wording that gives the regional energy agencies a mandate and a function from the government offices.”<sup>56</sup> The Programme Manager says that “I would appreciate a more distinct wording also in other areas than the municipal energy and climate advisory service. It would be good if the regional energy agencies would be defined as an established collaborator of the Swedish Energy Agency.”<sup>57</sup>

Since the Swedish Energy Agency does not have any regional offices, the agency does not have any representation at a regional and local level. Among other things, the regional energy agencies implement national policy instruments at a regional level via the municipal energy and climate advisory service, projects and the National Regional Fund Programme. Representation from both parties find the model of collaboration functional. A Head of Unit at the Swedish Energy Agency says that “as a central agency, we are not sufficient enough to power the policy instruments successfully by our self, but if we have

regional energy agencies there is nothing they [the regional energy agencies] could not do.”<sup>58</sup> The representative from the energy agencies of Sweden takes the same approach when she says “I wish that we in the future could develop more cooperation where the regional energy agencies’ function is an extension of the activities of the Swedish Energy Agency, and where they could use us for local and regional knowledge and distribution of information and activities.”<sup>59</sup>

Thanks to the work within the National Regional Fund Programme, the cooperation between the Swedish Energy Agency and the regional energy agencies has evolved and deepened. Representatives from both national and regional level express a satisfaction regarding the deeper cooperation. One Head of Unit at the Swedish Energy Agency thinks that this cooperation lays the foundation for future cooperation and underlines the importance of learning from the current programme period when stating “That is why it is so important that we use the first round of the National Regional Fund Programme to operationally get to know each other. The projects help us find forms of cooperation so that we can inform the policy makers about how the regional energy can be used in the future”<sup>60</sup>. The representative of the energy agencies of Sweden is also in favour of increased cooperation within the form of projects and emphasizes that “I would like to see the Swedish Energy Agency and the regional energy agencies run more projects together.”<sup>61</sup>

The fact that the regional energy agencies are funded through projects those with no or low core funding extremely dependent on project funding. This makes it difficult for the regional energy agencies to build a long-term operation, which ultimately makes them to somewhat unstable partners. According to the representative of the energy agencies of Sweden “It is important to state that regional energy agencies are an important resource in Sweden. Consequently, we need to make demands on the regional energy agencies from the national level. If regional energy agencies are to be a resource in Sweden, the structure of the energy agencies’ organization, competence and purpose need to be ensured. It is important that regional energy agencies continue to be exclusively public and operate impartially without commercial interests.”<sup>62</sup> The Programme Manager elaborates that “The funding of the regional energy agencies should have a long-term perspective since they are currently dependent on project funding” to ensure expertise and local knowledge.<sup>63</sup>

The regional energy agencies operate at a regional level, and have a responsibility to know their region. This means that they must establish contacts with local enterprises, organizations and inhabitants. Given that the Swedish Energy Agency is a central authority, it sometimes lacks the regional contact and knowledge. It is therefore important that the regional agencies contribute to bring back knowledge about the local conditions so that these experiences reach the Swedish Ministry of the Environment and Energy. When being asked about regional knowledge, a Head of Unit at the Swedish Energy Agency states that “An important

52. Head of Unit at the Swedish Energy Agency.

53. Programme Manager at the Swedish Energy Agency.

54. Director of the Energy Agencies of Sweden.

55. Head of Unit at the Swedish Energy Agency.

56. Director of the Energy Agencies of Sweden.

57. Programme Manager at the Swedish Energy Agency.

58. Head of Unit at the Swedish Energy Agency.

59. Director of the Energy Agencies of Sweden.

60. Head of Unit at the Swedish Energy Agency.

61. Director of the Energy Agencies of Sweden.

62. Director of the Energy Agencies of Sweden.

63. Programme Manager at the Swedish Energy Agency.

part of being a regional energy agency is to know your market. That is where they can be used. They are extensions that know their region. If you have a contact base and a register of consumers, you can use it for many different projects.”<sup>64</sup> The Head of Unit further states that “We should not use them just to convey information [...] The most important is that they can deliver information about existing [regional] challenges. If they know their market well, then they know what kind of product development we [the Swedish Energy Agency] should use. Then we can inform policy makers about real challenges.”<sup>65</sup>

The work at the regional level is an important part of reaching the Swedish energy and climate policy targets. The Swedish Energy Agency is an expert agency that execute government policies. It also serves as a source of information when new policy instruments and directives are developed. This is where the regional energy agencies can play an important role in the future. One Head of Unit at the Swedish Energy Agency underlines this fact when discussing the future role of the actors at regional level, “There is an initial phase that must be done centrally, where the national authorities and other stakeholders together develop strategies and design policy instruments. In the next step, it is important to seize and return the information from the relevant sectors to monitor and maximize the impact. It is also important to provide input to the development of new and existing policy instruments.” The representative from the energy agencies of Sweden also think the regional energy agencies can play a part in the future climate and energy work: “We are keen to be part of meeting the EU targets in the same way that we want to be a part of fulfilling the national, regional and local targets.”<sup>66</sup>

### Concluding remarks and aspects to be considered

In order to be a relevant and long-term actor at the regional level, the regional energy agencies need to be recognised as a competent actor. They should possess knowledge about their region as well as within the energy area. Furthermore, all 15 regional energy agencies should have similar competences to serve as a national resource.

Since some of the regional energy agencies are more dependent on project funding than others, the energy agencies with low or no core funding are more vulnerable than the energy agencies with a solid core funding. A more stable and long-term funding would ensure a more consistent level of competence among the energy agencies. Furthermore, a long-term funding would entail a lower risk when issuing a mandate to the regional energy agencies from a national level.

Since 2008, when the County Administrative Boards were commissioned to coordinate and run the Governmental energy and climate work at local and regional level, the roles among the regional actors has changed. Thanks to the dialogue between the Swedish Energy Agency, County Administrative Boards and regional energy agencies in 2015, a clearer division of roles between the actors has been established. In light of the results provided by this paper, a model where the Swedish Energy Agency and the County Administrative Boards are

responsible for the strategic work at national and regional level, while the regional energy agencies are the operational actor who convey and return knowledge has proven to be successful. To strengthen the cooperation between the three parties, a continued close dialogue is needed, but above all a continued practical cooperation so that the new working model is secured and accepted within each organization.

The work within the National Regional Fund Programme has resulted in a close dialogue and an understanding of each organization's operations and conditions. As a result, the process to initiate new projects and collaborations has been shortened and the distance between the national and regional/local levels has been reduced.

Thanks to the work within the National Regional Fund Programme, the regional energy agencies have strengthened their positions regionally and become more visible towards the regional business sector. The work has also laid the basis for regional energy agencies' ability to act as a communication channel between the regional target groups and decision makers. Through this channel, knowledge and information are disseminated to the target groups and knowledge is returned back to the national level. This improved flow of information can greatly facilitate the process of evaluating and developing policy instruments at the national level. In this way, it is possible to evaluate and develop new and existing policy instruments.

The long collaboration within the municipal energy and climate advisory service and the new collaboration within the National Regional Fund Programme has enabled that a structure has taken shape in which the regional energy agency acts as an intermediary between the Swedish Energy Agency and its target groups at the regional level. The significance of this structure was partly confirmed when, in 2016, the Swedish government amended the government decree on financial support for municipal energy and climate advisors, giving the regional energy agencies a formal role as coordinators.

Based on the discussion above, we see that the mandate of the regional energy agencies at the regional level has been strengthened due to following: Before 2016, the regional energy agencies had an important, but rather informal role within the municipal energy and climate advisory service. Since 2016 and the new government decree on financial support for the advisory service, they now have a formal role as coordinators within their region. Furthermore, the work and the collaboration within the National Regional Fund Programme has also enhanced the executive role that the regional energy agencies play. They are now a formal partner to the Swedish Energy Agency and they now run projects towards SMEs. Both parties agree on that they wish for a deepened and developed collaboration in the future.

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## Appendix

### INTERVIEW GUIDE

#### 1. Introduction

- Background: Description of the Swedish energy policy objectives (current goals and the objectives that have been present since the first energy offices started).
- Background: Description of regional energy agencies. Why do they exist? What is their purpose?

#### 2. Past

- What was the purpose of the regional energy agencies from the beginning? Organizational form? How were they funded from the beginning? What type of tasks would they have?
- How was the cooperation between regional energy agencies and the Swedish Energy Agency organized?
- Highlight the other reasons how the regional energy agencies and the Swedish Energy Agency interacted (in addition to direct links with energy policy objectives).

#### 3. Present

- What does the regional energy agencies do today? Describe both the National Regional Fund Programme and other projects.
- How is the cooperation between regional energy agencies and the Swedish Energy Agency today? In regards to the national energy policy targets.
- Description of the Swedish Energy Agency and co-parties' collaboration within the National Regional Fund Programme. Describe both regional energy agencies and county administrative boards' roles.
- How did the relationship between regional energy agencies and the Swedish Energy Agency change when the National Regional Fund Programme project started?

#### 4. Future

- How will the cooperation between the regional energy agencies and the Swedish Energy Agency look in the future? Try to connect to the national energy policy objectives.
- What role does the Swedish Energy Agency anticipate that regional energy agencies have to implement Sweden's energy policy objectives?
- What do the regional energy agencies anticipate on their future role in implementing Sweden's energy policy objectives? How will they contribute?