

National Electrification Strategy
– a secure, competitive and sustainable
electricity supply for a historic climate transition

Actions





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Actions in the National Electrification Strategy

- 1. Joint-agency follow-up of the electrification of society.** The Government intends to instruct the Swedish Energy Agency, the transmission system operator Svenska kraftnät, the Swedish Energy Markets Inspectorate and the Swedish Transport Administration to increase collaboration on national and regional needs and scenario analyses, following dialogue with the Swedish Environmental Protection Agency, the county administrative boards and the municipality of Gotland and the regions (the regions), among others. In December 2022, the authorities will report on their joint assessments in order to monitor whether the fundamental requirements are met for the electricity system to develop in line with the needs that exist. This work includes enhanced key indicators relating for example to investment plans for power generation, electricity network capacity, energy storage, current lead times and development in other areas. New measures are proposed if the conditions are not deemed to be sufficient to meet the needs.
- 2. Economic analyses.** Methods shall be developed to assess the economic benefits and costs of measures to achieve high levels of electrification in order to attain the climate goals.
- 3. Svenska kraftnät will be given a clearer role in ensuring that the electricity system can evolve in line with needs.** This action includes more proactive work on national network planning needed to meet the electricity demand resulting from electrification in order to attain the climate goals. Enhanced collaboration with electricity network companies, county administrative boards, regions, municipalities and other stakeholders at regional and local level must help to ensure that the system development plan can be based on aggregated needs from the bottom up, and that network development plans at all levels are interconnected by ensuring that needs in the transmission network also lead to actions in underlying networks. Furthermore, the Government intends to instruct Svenska kraftnät to clarify the conditions for promoting location of new activities of benefit to the system. An enhanced network capacity map will be produced showing available network capacity at transmission and regional network level in different time perspectives. Where possible, the map will be linked to the corresponding information at local network level. The map helps to clarify what could be locations of benefit to the system for additional electrolyzers for hydrogen production and other large-scale uses of electricity, power generation including offshore energy, energy storage and other resources in the electricity system. Svenska kraftnät will also clarify how other tools, such as the design of main grid tariffs and connection costs, can be used to promote system-benefiting locations, and propose further measures if necessary.

4. **National interests in energy distribution and electricity production will be updated.** The national interest designations for energy distribution and power generation should be updated on an ongoing basis and reported on annually, as they can be of great significance to climate transition and security of electricity supply. Updates should take place in the framework of continued agency dialogue on the review of national interests and be coordinated with the Swedish Civil Contingencies Agency's task of identifying national interest claims for the civilian part of the total defence system in accordance with Chapter 3 Section 9 of the Environmental Code and Section 2 of the Ordinance (1998:896) on land and water management.
5. **Regional and local network development plans will be produced.** The focus should be on the electricity network companies' plans being produced based on quality-assured needs identified in dialogue with the electricity users concerned, Svenska kraftnät, the county administrative boards, regions and, if necessary, individual municipalities. The plans should also clarify available network capacity.
6. **Regional and municipal electrification must be reflected in community planning.** A survey must be carried out in 2022 of the needs and conditions required for an enhanced electricity network and energy and community planning at regional and municipal level for extensive electrification. Examples of best practice should be highlighted from practical work to improve conditions in the energy sector in order to enable electrification in different parts of the country. Enhanced regional and municipal planning should be brought about in dialogue between the county administrative boards, the regions, the Swedish Energy Markets Inspectorate and other relevant national agencies.
7. **Enhanced tools for effective regional and local energy planning.** An analysis shall be made of which tools can be developed in a cost-effective way for use by regions, municipalities or planners, property developers and business developers at local level, for example to calculate future power needs for charging infrastructure and other parts of the future electricity system. This may facilitate the work of stakeholders and enable aggregated assessments to be made at regional and national level.
8. **Agency review.** The Government intends to conduct a review of the tasks and responsibilities of the government agencies in the field of energy. The focus is on ensuring that the agencies are organised in an appropriate and effective manner that creates the right conditions to meet society's needs in the long term, achieve the political objectives in the energy field and implement this strategy.
9. **An electrification council will be established.** During the period 2022–2024, the Electrification Council will support the implementation of this strategy by acting as an advisory body to the Government for dialogue on the development of the future electricity system. The Electrification Council will be chaired by the minis-

ter responsible for energy issues, with broad participation from the public sector, industry and other parts of society. The Council will contribute to increased consensus on and endorsement of the overall direction for the development of the electricity system, clarify needs and efforts in different parts of society that can contribute to favourable development, support the Government's work to evaluate the conditions for the electricity system to develop in line with needs and provide a platform for broad collaboration in the implementation of certain measures in this strategy. A secretariat for the Electrification Council will be established at the Government Offices of Sweden.

- 10. The principle of 'energy efficiency first' must guide the development of the electricity system.** Based on EU requirements, proposals shall be developed for how the 'energy efficiency first' principle can be applied in Sweden to drive economically effective efficiency measures that can facilitate electrification and contribute to the energy and climate goals.
- 11. The energy efficiency potential of different sectors will be clarified.** The Government intends to instruct the Swedish Energy Agency, in dialogue with the Swedish Energy Markets Inspectorate, the Swedish Environmental Protection Agency and the Swedish Transport Administration, to analyse the economically effective potential for energy efficiency improvements in various sectors and activities from a 2045 perspective with a high degree of electrification. The analysis should include obstacles, undesirable rebound effects, the functioning of energy markets and market failures. Where necessary, further measures should be proposed to remove obstacles to economically effective energy efficiency. The remit must be carried out in dialogue with the inquiry on white certificates (I 2021:01).
- 12. Adaptation of policy instruments to reduce power needs.** Energy policy instruments are analysed from a power perspective to contribute, where possible, to a reduction in power needs in order to facilitate rapid electrification.
- 13. Clearer information on power requirements in energy declarations.** Requirements for the inclusion of the power dimension in the regulations for energy declarations for buildings and energy surveys in large companies will be analysed.
- 14. Electrification that is sustainable and resource-efficient.** A qualitative and quantitative analysis shall be made of environmental impacts and resource use in different electrification scenarios. This should result in proposals for measures to increase synergies between increased electrification, increased resource efficiency and sustainable land and water use to attain environmental quality objectives. The analysis should be based on the conclusions of the Sustainable Electrification project of the Environmental Objectives Council.

- 15. A district heating and combined heat and power strategy will be developed.** The Government intends to instruct the Swedish Energy Agency to develop a strategy for the long-term sustainable development of the district heating sector in synergy with electrification and the energy and climate goals. The strategy should analyse fundamental requirements for different sustainable fuel alternatives and other energy sources and review the regulatory framework and policy instruments affecting the competitiveness of district heating and combined heat and power. As part of the work, local and regional system benefits of cogeneration will be quantified and proposals will be made for how these can be more accurately valued in the electricity market, for example through payments for support services, network benefit or local capacity markets. The strategy should also include aspects of how the district heating market interacts with the electricity market and result in proposals for action to integrate electricity and heating systems more effectively. The relevant parts of the strategy linked to the functioning of the electricity market and system analyses will be developed in dialogue with Svenska kraftnät and the Swedish Energy Markets Inspectorate, as well as other relevant stakeholders.
- 16. Fundamental requirements for hydrogen and electrofuels will be clarified.** The Government is discussing the Swedish Energy Agency's proposals for a national strategy for hydrogen and electrofuels (ER 2021:34). The Government intends to clarify the political direction and remove obstacles so that electrolysers and hydrogen storage facilities can be integrated into the energy system in an economically effective manner and contribute to achieving the energy and climate policy goals.
- 17. Analyse the fundamental conditions for introducing regulations containing a revenue cap for hydrogen pipelines.** The fundamental conditions will be clarified and proposals will be developed so that regulations can enter into force at the latest when the EU's announced gas legislation is to be implemented in Sweden.
- 18. Fossil-free alternatives for backup power.** The guidance on backup power shall be reviewed and complemented with the possibility of using all fossil free and renewable alternatives, such as biogas and fossil free hydrogen in fuel cells or gas turbines.
- 19. Build in the possibility of flexibility when connecting new electricity-demanding activities.** The Government intends to instruct Svenska kraftnät to clarify the conditions to be met to promote flexibility in the electricity system through requirements, conditions, tariff design and connection costs when connecting new large electricity users, including electrolysers and data centres. If obstacles to economically profitable investments are identified, proposals will be made for additional instruments or regulatory changes.

- 20. Bring about a high degree of smart charging and flexible electric heating.** The Government intends to instruct the Swedish Energy Agency, in collaboration with the Swedish Energy Markets Inspectorate, Svenska kraftnät and other relevant agencies, to promote smart control in areas offering great potential, such as electric vehicle charging and electric heating. An analysis of the potential for different types of smart control to reduce peak loads and contribute to other system services in an economically efficient way will be made as part of the remit. The work on assessments of potential will be coordinated with the remit given to Svenska kraftnät in the 2022 Government appropriation directions to describe the potential for energy storage and flexibility services. Measures will be proposed to realise the potential, for example in terms of aggregation, tariff design, advanced data sharing, introduction of requirements for manageability or other policy instruments. Action proposals will be based on user needs and ensure that it is easy and cost-effective for the user to contribute to flexibility of demand. Information and cybersecurity will be taken into account in the analysis. Opportunities to promote development through participation in relevant EU programmes will be highlighted. Account will be taken of any new EU regulation in this area.
- 21. An electricity market hub will be developed and implemented.** The Government intends to clarify the conditions, including confidentiality and security, for establishing an electricity market hub for information and data exchange in the electricity market and ensuring secure commissioning.
- 22. Electricity network tariffs will be developed.** The Energy Markets Inspectorate's work on preparing regulations to promote efficient network use and Svenska kraftnät's work on network tariffs to promote more efficient use of the electricity network will be monitored. Separate tariffs for pumped-storage hydroelectricity and the use of heat pumps and electric boilers in district heating networks may need to be evaluated, for example.
- 23. The transmission capacity of the transmission network must increase.** The Government intends to instruct Svenska kraftnät to analyse the options for obtaining the necessary remedial measures in addition to support services to maintain maximum transmission capacity in the existing transmission network. This also includes the question of which technical solutions may have the potential to increase capacity in the transmission network more quickly or cost-effectively. This relates among other things to raised voltage levels on specific sections of the existing transmission network. Offshore or onshore DC cables should also be included among the options evaluated.
- 24. Continued follow-up of transmission network investments.** Under the 2022 appropriation directions, Svenska kraftnät must enhance its reporting on the implementation of its investment plans. In its business plan, Svenska kraftnät must present a follow-up of investments in projects included in previous years' investment and financing plans that were finalised during the year.

The report must compare the outcome with the original plan in investment decisions in terms of time, cost and quality. The report must also include an analysis of how the agency's future investments can be more closely aligned with the state-owned utility's investment plans. The Government sees a need to continue with clear follow-up after 2022.

- 25. Cooperation in the Nordic region and the EU will be intensified.** Within the framework of the work done by the Nordic Council of Ministers, the Government intends to develop existing cooperation in the Nordic region and with neighbouring EU Member States on common challenges and opportunities related to transmission network development and national electrification strategies.
- 26. Fundamental requirements for proactive work on network expansion at all levels will be clarified.** Basic requirements to be met for network companies to build electricity networks with a margin, based on quality-assured ten-year forecasts and long-term scenarios that achieve climate targets, will be clarified. Any legal barriers to more proactive work that are identified will be removed. It will be clarified how the climate and community benefits of electrification should be included in economic analyses in concession reviews.
- 27. Revenue regulation will be developed.** The Government intends to develop a revenue regulation regime that is sustainable in the long term to meet future needs arising from electrification, balancing the interests of all stakeholders.
- 28. Cost sharing in proactive work for efficient electricity network expansion will be analysed.** An analysis will be made of whether proactive work for efficient network building can be facilitated by different ways of allocating costs that increase acceptance of such expansion.
- 29. Action programme for charging infrastructure and hydrogen tank infrastructure.** The Government intends to instruct the Swedish Energy Agency and the Swedish Transport Administration to develop a national action programme for a rapid, coordinated and economically efficient expansion of appropriate public and non-public charging infrastructure and hydrogen tank infrastructure. The programme is intended to provide a baseline description and a forward-looking analysis and assessment of how the expansion of charging infrastructure and tank infrastructure should be enhanced to enable the electrification of road transport across the country. The remit also includes analysing the role of different stakeholders in the expansion and, if necessary, making proposals regarding whether and how roles and responsibilities can be clarified, for example between municipalities, property owners, housing associations, traders and government agencies.

One purpose of the action programme is to use it as a basis for ensuring that Sweden fulfils the obligations arising from EU legislation in this area when reporting to the EU. The action programme must also take into account updated state aid rules.

- 30. Review of policy instruments for the expansion of charging infrastructure and hydrogen tank infrastructure.** As part of the preparation of the action programme (Action 29), the Government intends to initiate a review of existing remits, regulatory frameworks, state aid, deductions and requirements for charging infrastructure. It is intended that the review will include an assessment of whether the policy instruments are adapted to achieve a rapid, coordinated and economically efficient expansion of appropriate charging infrastructure to enable the electrification of road transport throughout the country, and of whether account is taken of the different conditions and needs for charging infrastructure for light and heavy vehicles. Where necessary, proposals should be made for action required to ensure and maintain the usability, adequate capacity, redundancy and reliability of the tank and charging infrastructure over time.
- 31. Enhanced follow-up of the expansion of charging infrastructure and tank infrastructure for hydrogen.** The Government intends to monitor the expansion of public and non-public charging infrastructure and tank infrastructure for hydrogen throughout the country on an annual basis and assess whether there are gaps in the expansion of charging infrastructure that pose an obstacle to the electrification of the transport sector. The intention is that investments made with public support will be reported separately in the follow-up. In order to facilitate monitoring, statistics on charging infrastructure for road transport should also be developed. This includes methodology development to quantify the number of non-public charging points.
- 32. The possibility of network companies building certain charging infrastructure will be analysed.** An in-depth analysis will be made of the consequences in terms of costs and benefits for network customers and society of allowing network companies to expand certain charging infrastructure for a limited period of time in accordance with the EU Electricity Market Directive¹. The aim of the analysis is to investigate whether such an exemption can contribute to economically efficient expansion of charging infrastructure where it does not take place on a market basis, for example for heavy transport.
- 33. The need for charging infrastructure and network capacity for shipping and aviation will be clarified.** The need for investment in the expansion of charging infrastructure and tank infrastructure for hydrogen in Sweden's ports and airports shall be analysed and clarified. The analysis includes reviewing the capacity

¹Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU.

needs for battery charging at ports and airports and how this can be integrated into the electricity system in an efficient way.

- 34. The role of the Swedish Energy Agency as national coordinator for charging infrastructure will be enhanced.** The Government intends to clarify the coordinating role of the Swedish Energy Agency in order to contribute to development in line with the Government's overall focus for the expansion of charging infrastructure and to strengthen collaboration between the agencies concerned. Progress towards making electric vehicles easy to charge, regardless of type of housing, must be monitored annually and, where necessary, further measures must be proposed to facilitate access to charging facilities, including in apartment buildings and homeowners' associations. The role of national coordinator is also intended to include enhanced support for municipal energy and climate advisors to enable them to act as charging advisors, ensuring, in dialogue between the relevant agencies, that the standards and guidance needed for everyone to be able to use the charging infrastructure are developed, and to disseminate knowledge through the agencies concerned.
- 35. Charging infrastructure in homeowners' associations will be facilitated.** An analysis must be made of whether the costs incurred in easement procedures affecting homeowners' associations for charging points should be eligible for support under 'Klimatklivet' local investment grants. If deemed appropriate, costs should be assessed and impacts investigated.
- 36. Expansion of on-street charging infrastructure will be promoted.** The Government intends to review and, if necessary, clarify those aspects of the traffic regulations that relate to charging, for example with regard to signage. In addition, the Planning and Building Act (2010:900) must be reviewed with regard to on-street charging infrastructure, and a guide for the establishment of such infrastructure will be developed. The review should also include an analysis of whether and how electric road technology could be used to charge vehicles parked in the street.
- 37. Uniform payment solutions will be in place to make charging easy.** The Government intends to continue the dialogue with the charging industry to bring about industry-wide standards for payment solutions as soon as possible. Account must be taken of any new EU regulations to ensure that a Swedish system is aligned with EU legislation in the area.
- 38. Fundamental requirements for the electrification of plant and machinery will be met.** The Government intends to analyse the need for network capacity, charging infrastructure and hydrogen tank infrastructure for the electrification of construction machinery. The analysis must include an assessment of the possible need for further initiatives in this area.

- 39. A national dialogue to halve lead times for new electricity networks by 2025.** The dialogue aims at a concerted effort and broad collaboration between industry, government agencies and other stakeholders to enable a common societal goal of halving lead times by 2025, which is needed to electrify industry and transport. Examples of best practice, ideas for new general, non-project-specific measures and mutual commitments should be highlighted and discussed. The dialogue must lead to annual follow-ups of progress towards halving lead times, starting in December 2022, which may also include proposals for further action.
- 40. Ensure adequate resources among reviewing government agencies.** The future resource requirements for concession reviews that need to be financed from the government budget should be clarified. The government agencies' budget submissions form an important basis, but the Government intends to ask the agencies to also report on the expected development of concession management in the longer term. At the same time, the advantages and drawbacks of fully or partially fee-based financing of the Swedish Energy Markets Inspectorate's concession review should be evaluated. An evaluation might allow for more responsive staffing, independent of the government budget.
- 41. New methods in transmission network expansion.** The Government intends to instruct Svenska kraftnät to report on how the agency is working to develop and apply new methods that can shorten lead times for the expansion of transmission networks. Examples of such measures include applying conditional tendering to the design of new electricity networks that starts before the network concession decision is taken, starting the investigation and design of certain main grid reinforcements based on projections and high electrification scenarios, and making it easier, if deemed appropriate, for third parties to assist in the design of main grid and regional network power lines in certain cases.
- 42. Expand knowledge of the environmental impact of electricity networks.** The Government intends to carry out a survey and an analysis of the need for research into the environmental effects of electricity networks, including for reindeer herding and biodiversity, in order to achieve more efficient and better concession review.
- 43. Clearer guidance on magnetic fields.** Clearer guidance must be produced on the type of investigations that should be carried out regarding magnetic fields in permit assessments for the expansion of electricity networks. This includes how specific the investigations and levels of requirements need to be and when and how any proposals for action should be formulated.
- 44. Increased digitalisation in power line easement procedures.** Necessary amendments to the Land Code should be studied for digitalisation of the handling of transfer and granting documents.

- 45. Shorter lead times for connecting charging infrastructure.** Lead times and costs of connecting charging points to the electricity network shall be analysed and summarised. Examples of best practice must be highlighted. Where necessary, measures to achieve shorter lead times should be proposed. This could, for example, include standardised processes. The analysis should be carried out in dialogue with network companies and players who establish and operate charging infrastructure.
- 46. Goals for security of supply.** The Government intends to swiftly adopt a position on a reliability standard and implementation plan with measures to improve the way the electricity market functions.
- 47. The future of the power reserve will be clarified.** The Government intends to work towards maintaining the power reserve beyond 2025 for as long as it is needed and is compatible with the EU regulatory framework. This work must be based on a resource adequacy assessment in accordance with the EU Electricity Market Regulation² and include an in-depth analysis of import options at peak load hours. Furthermore, the aim is for power generation in the power reserve to come from renewable energy sources.
- 48. Effective supervision of operational reliability.** In order to clarify supervisory activities relating to operational reliability, the Government intends to instruct Svenska kraftnät, in cooperation with the Swedish Energy Markets Inspectorate, to describe present-day supervision and how the work should develop.
- 49. International cooperation on preparedness issues.** Sweden, together with neighbouring countries, must develop technical, legal and financial arrangements to implement regional measures in accordance with the EU Regulation on risk-preparedness in the electricity sector³.
- 50. Enhanced electricity preparedness.** Electricity preparedness needs will be clarified in order to plan and prioritise actions. This development will take place in interaction with the electricity market.
- 51. Increased knowledge of realistic development pathways for new and existing power generation.** Potential, lead times and other conditions for different types of power to contribute jointly to a robust, competitive and sustainable electricity supply and how existing and new facilities can interact shall be highlighted. A comparison should be made between fully renewable electricity systems and different electricity systems that include nuclear power (lifetime extended and/or new). Significant obstacles to market-driven investment shall be highlighted and proposals made to remove them.

² Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity.

³ Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC.

- 52. Increased coexistence between greatly expanded power generation and other interests.** Dialogue will be developed to identify measures that can enable climate transition through electrification that is compatible with other interests such as secure electricity supply and the mission of the total defence system, an attractive environment in rural areas, the cultural environment and nature conservation. The focus should be on identifying and managing conflicting aims through various measures.
- 53. The fundamental conditions must be in place for rapid and economically efficient expansion of large-scale offshore wind power.** The measures taken shall be monitored from an overall perspective to ensure that the expansion takes place as efficiently as possible and contributes to the climate and energy policy objectives. The follow-up must identify possible needs for further and complementary strategic actions, including concrete measures for increased co-existence with nature conservation, defence and commercial fishing interests, so that expansion can keep pace with increased electricity needs resulting from electrification.
- 54. System stabilisation capabilities will be built into power generation.** The cost-effective potential to build in capabilities when reinvesting in and establishing new power generation to provide future support services, storage and flexibility shall be made clear. Furthermore, an analysis will be made, based on current network codes at EU level, of the need for clearer requirements in new connection to realise this potential.
- 55. The storage and flexibility potential of hydroelectric power will be exploited.** The role of hydroelectric power in the future electricity system shall be analysed. The analysis should include the conditions to be met for power increases and the technical, financial and environmental conditions necessary for significant changes in generation patterns to enable additional variable power generation to be integrated into the electricity system. The possible impact of increases in power on other assets shall be considered and reported, including the cultural and natural environment. The analysis should also include the potential for pumped-storage power and identify the need for possible initiatives to enable the storage and flexibility potential of hydroelectric power to be achieved to a greater degree.
- 56. The new EU electricity market design will be implemented and complied with.** The Government intends to step up work aimed at implementing the new EU legislation in a way that contributes to a more efficient electricity market that can support successful electrification. At the same time, compliance with new and existing electricity market rules should be ensured.
- 57. Ancillary services markets will be developed.** Svenska kraftnät, as the agency with system responsibility, will continue its development work in this area. The Government is analysing the report on the government remit for the development of ancillary services submitted by Svenska kraftnät on 15 October 2021 and intends to return with further measures if necessary.

- 58. National and local flexibility markets will be developed.** The development of the flexibility markets being tested in Sweden shall be evaluated and monitored. Conclusions from the monitoring should be reported as part of the electricity market development checkpoints (Action 60). Proposals should be made on the direction and measures that may be needed to promote the development of flexibility markets in Sweden for effective competition between established and new players. Conditions needing to be met for 'regulatory greenhouses' and large-scale test beds should be specifically included in the first report.
- 59. Mechanisms for long-term price hedging.** An in-depth assessment shall be made of whether the financial electricity market is working satisfactorily in the face of a sharp increase in electricity demand over the longer term. The assessment should include the question of price hedging options through various exchanges, brokers and bilateral agreements between market players (PPAs). If the price hedging options are deemed inadequate or if they have a negative impact on the electricity market, proposals will have to be made for possible improvements.
- 60. Checkpoints for electricity market development.** The report that is to monitor the electrification of society (Action 1) shall include a checkpoint in the form of a compilation of the conclusions and proposals of the relevant government agencies regarding the development of the electricity market, including the development of support services, national and local flexibility markets and the financial electricity market. The compilation should be developed in a broad and public dialogue with relevant stakeholders in the electricity market, among others. The compilation made by the agencies shall also be used as a basis for the second checkpoint for the energy agreement, which it was previously announced will be carried out in 2023.
- 61. Intensified discussion and analysis of the future electricity market model.** A broad discussion on the future electricity market model shall be conducted based on material from the government agencies, with assessments of the electricity market model's potential to enable cost-effective and secure electricity supply over time in line with a high level of electrification. Any needs to develop the electricity market model in a Nordic context should be identified, and if so, taken forward through an inquiry.
- 62. Concerted national effort on skills provision for electrification.** The various initiatives by the industry and the government agencies to improve skills provision linked to electrification should be coordinated. This work should help to gain acceptance for the proposed direction and clarify the need for skills provision based on an overall perspective on electrification. Continued work to promote gender equality and integration shall be included. Relevant government agencies and public sector operators should be involved in the work.

- 63. Investigate the conditions for a comprehensive strategic knowledge initiative.** The conditions to be met for a comprehensive strategic knowledge initiative in the field of energy shall be investigated. The aim is to take a holistic approach to how ongoing research and innovation can help orientate this strategy and enable the energy system to evolve in line with electrification. A concerted strategic knowledge initiative can also become a new arena for close collaboration between the Government, agencies, regions, municipalities, energy suppliers, industry, universities, institutes and other research actors.
- 64. Increase transparency around data and analysis that can contribute to electrification.** Existing data and analysis that could be made more available in a secure and cost-effective way must be mapped to foster research, innovation and business development that can contribute to successful electrification.
- 65. Stronger incentives for municipalities to establish wind power.** The Government intends to launch an inquiry and return with proposals on how municipalities could be given incentives for the expansion of new wind power. The inquiry can propose ways to strengthen financial incentives, either through the government budget or from the companies concerned.
- 66. Analyse distributional effects of widespread electrification.** The analysis should clarify how costs and benefits may be distributed in the event of far-reaching electrification. The analysis should lead to a better understanding of how the degree of acceptance can be increased and how more equitable electrification can be achieved.
- 67. Greater knowledge for safe electrification.** There must be greater knowledge of the safety aspects of electrification in society. This should include helping to ensure that the municipal emergency services have the necessary knowledge of how rescue operations involving electric vehicles should be managed.

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