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Føroyar heimsins besta vindorkuland

Føroyar eru tað landið í heiminum, sum er best egnað til vindorku heldur Johan Dahl, landsstýrismaður í orkumálum, sum eisini vónar, at Føroyar í framtíðini kunnu gerast tað fremsta vindorkulandið í heiminum. 5 nýggjar vindmyllur Fríggjadagin fer SEV at tendra 5 nýggjar vindmyllur í Neshaga í Eysturoynni. Hesar fara at økja um framleiðsluna av vindorku úr 4MW til 6,6MW. Útbyggingin er ein partur av eini størri ætlan at byggja út vindorkuna í Føroyum. Á samkomu í Havn fyrrapartin rósti Johan Dahl, landsstýrismaður í orkumálum SEV og DONG Energy fyri at hava rokkið so langt. Nýggja orkuskipanin saman við nýggju vindmyllunum er ein týðandi varði í føroyskari orkusøgu. Hann helt fyri, at Føroyar eru kanska tað best egnaða plássið í øllum heiminum til vindmyllur. Í dag stava 40% av elframleiðsluni frá varandi orkukeldum og gerst vindorkan ein støðugt meira týðandi partur av hesi framleiðsluni. Skulu Føroyar gerast minni heftar at innfluttari olju, so er útbygging við vindmyllum rætti vegurin, nú vatnorkan er nærum fult útbygd segði landsstýrismaðurin. Á samkomuni á Hotel Føroyum nam Johan Dahl eisini við slóðbrótandi orkuskipanina, sum SEV hevur ment saman við DONG Energy og øðrum útlendskum felag. Hetta er ein skipan, sum skal forða fyri, at alt landið verður lagt myrkt, tá motorarnir hjá SEV ganga fyri. Johan Dahl hugleiddi víða og breitt fyri innbodnu gestunum, harav nógvir komu úr útlandinum - Ladies and Gentlemen, Representatives of SEV, DONG Energy and the TWENTIES project Thank you for the invitation to take part in the live demonstration and inauguration of virtual inertia on the Faroe Islands. It is an honour and privilege that our islands have been chosen to be the first place in the world where this ground-breaking smart grid technology is launched. But let me start by saying that this should by no means come as a surprise. The Faroe Islands are in many respects a natural test bed for new

products and processes. Our small population, isolated geographic location combined with high standards of living and abundant human capital means that we are in essence a well-defined micro-replica of a Western society. Technologies can be tested and launched on a small scale on our islands before they are implemented full scale on larger markets. --- Todays event is a result of the GRANI cooperation between DONG Energy and SEV, which started in 2009. Part of this cooperation has since been integrated into the TWENTIES project. The main focus of the cooperation is to integrate renewables in an isolated electrical grid, where the Faroe Islands act as a live demonstration laboratory, which makes it possible to test intelligent solutions in small scale, but still on a full scale system level. This small scale full scale cooperation is mutually beneficial. The characteristics of the Faroese electricity system make it ideal for testing this sort of technology. If such trials were to be performed in one of the larger European grids the process would be costly considerable slower. The fact that cooperation with a mere three Faroese companies is enough to produce the desired results is a telling fact for the desirability of testing innovative technologies on the Faroe Islands. For us the benefit of participation is obvious. This sort of cooperation offers access to international companies, leaders in their fields, as well as to the global network and knowledge base that these companies have. As an added bonus the citizens of the Faroe Islands can sleep a bit better at night knowing that technologies developed and tested on our market will likely lead to full scale implementation on far larger European markets. In this way our small nation is also contributing to making the world a greener place. But primarily the technology tested today will make our isolated islands capable of integrating large amounts of wind power and simultaneously increase the security of supply. And the importance of this solution will be even greater now that we have decided to stretch the capacity boundaries of our small electrical grid. --- Tomorrow SEV will start up 5 new Enercon wind turbines in Neshagi, which will increase the total amount of wind power on the Faroes from around 4 MW to 6.6 MW. This is an increase of more than 50%. Furthermore, a proposal for a new wind farm of around 12 MW is currently being reviewed. This would bring up the total amount of wind power to over 18 MW, which is almost as much as the average night load. If this wind farm is operational in 2014, as intended, the Faroe Islands will have increased the amount of wind power by a factor of 4 over the course of just 3 years. This is a giant leap on the path to sustainable power production. Such a dramatic increase in electricity production from fluctuating renewable energy resources demands major changes to the grid and its monitoring system. It requires a crucial paradigm shift from the passive use of electricity to an active and intelligent use. The current system has built-in limitations and risks relative to major renewable energy expansion that must be resolved in line with any on-going developments. In addition, we must face the natural limitations that are present because the entire grid is limited in size and has little inertia both from the perspective of production and consumption. These limitations could be considerably reduced by increased electrification and by intelligent control of consumption and production. Smart Grid

and by intelligent control of consumption and production. Smart Grid technology thus enables the effective integration of all the stakeholders, those that only produce electricity, those that only use electricity, and those that do both, in order to supply electricity in a more sustainable, economical, and secure manner. --- The Faroe Islands have some of the worlds best wind resources. Onshore wind turbines can on average produce equal amounts of electricity to offshore wind turbines, but at a lower installation cost. It is therefore crucial that we seek to harvest as much of these resources as we possibly can. However, given the characteristics of the Faroese power system, this is also one of the most difficult places in the world to integrate large amounts of intermittent but abundant renewable energy. SEV has developed and expanded the grid as well as its production capacity to such a degree that today some 40% of the energy produced by SEV comes from renewable energy sources. This is quite an achievement and should be commended. Yet, we seem to be reaching a limit. Hydropower is nearly developed to its full potential. Solar power does not seem to be viable on the Faroe Islands. And tidal and wave technology has still not been able to deliver economically feasible results, and will probably not do so in the near future. So is seems that - in the short term - wind power is the only way forward if we want increase the amount of electricity produced from renewable energy resources. From an energy policy perspective this project is therefore of great importance. Given the fluctuations in wind energy production, there is a limit to how much wind energy the grid can tolerate today. However, it is fair to say that with technological improvements to the grid such as virtual inertia and more advanced wind turbines the possibility to bring more wind energy into the system will increase. --- Last year the Faroese Government issued a new energy policy that has very ambitious goals for increasing the share of renewable energy in our electricity production. A combination of wind power, hydropower, pumped storage and eventually tidal power will allow us to significantly decrease our dependency on fossil fuels. The Government is currently working closely with SEV on a road map that will allow for these goals to be met. Flexible production and consumption, energy storage and smart grid technology will naturally play a major role in increasing the share of renewables in our future production mix. Electrification of heating and transport are crucial in this respect. We are also looking into the possibility of linking up to electricity markets through subsea interconnections. Less than a month ago we signed a Memorandum of Understanding with Iceland on exploring the possibility of an electricity interconnection between the two countries. The Government must on its part ensure that market structures and incentives are in place that will facilitate a large scale move towards renewable energy. In these efforts we have also benefitted a lot from SEV cooperation with international companies and associations. --- Ladies and Gentlemen, Before I give the floor to Mr. den Boor I would once again like to thank SEV, DONG Energy and the TWENTIES project for the opportunity to take part in this event. I also want to commend the three Faroese companies that have made todays demonstration possible. I personally believe that energy policy and the

challenge of moving towards increasing levels of renewable energy production is perhaps the most important issue that we are faced with as a small island nation. The ground breaking smart grid technology tested today is a vital solution that allows us to make significant progresses in the right direction. I therefore wish you the best of luck with the inauguration and demonstration. Thank you. Mynd Landsstýrismaður, nevndarformaðurin í SEV og umboð fyri DONG Energy trýsta á knøttin til nýggju orkuloysnina, sum varð tikin í brúk á Sundsverkinum í morgun. Myndatøka SEV.