Vindorkugarður á Laxárdalsheiði

Kynning hjá Dalabyggð

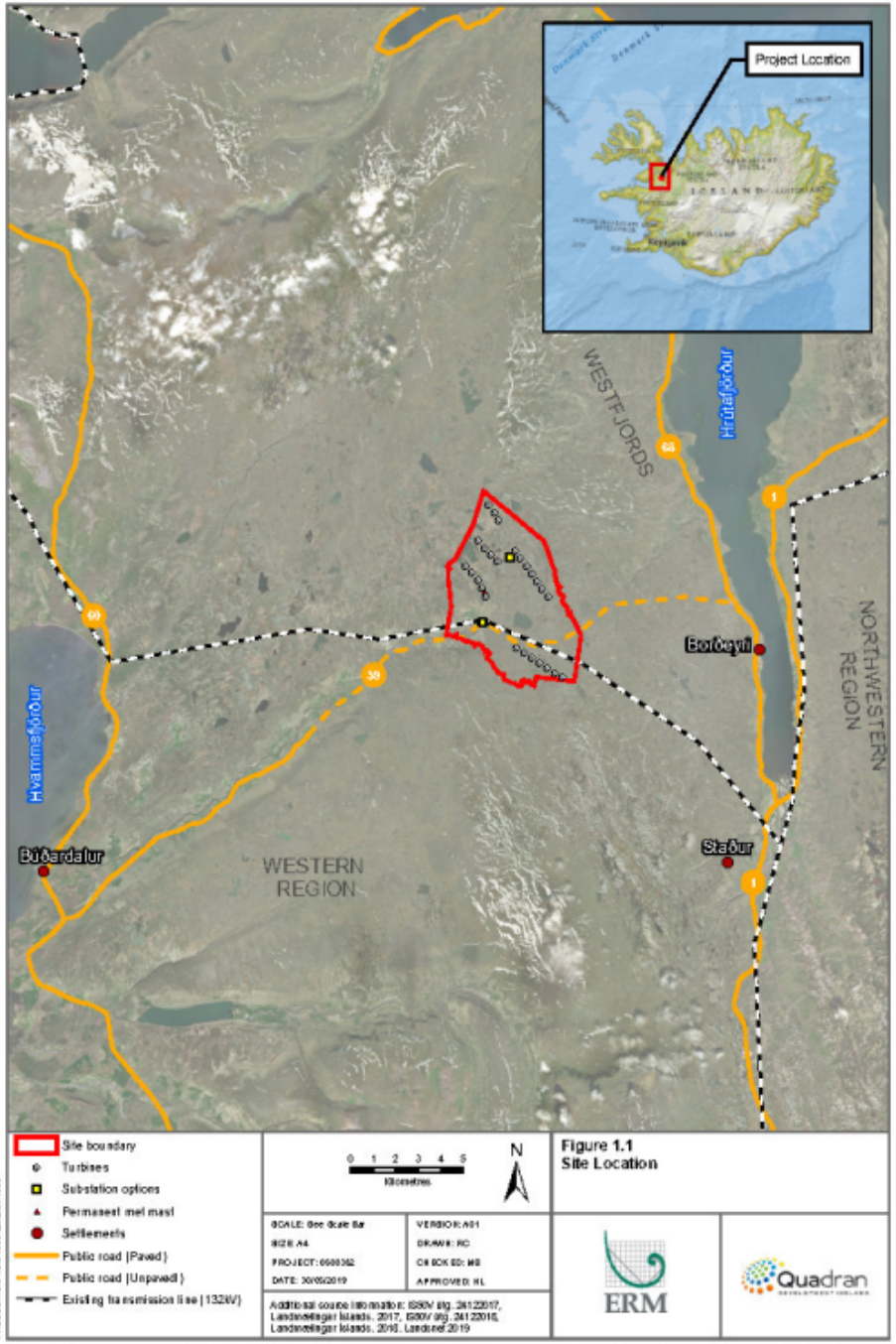
Dalabyggð, 27.06.2019

MANNVIT

ERM

Quadran Iceland

TRAUST
VÍÐSÝNI
ÞEKKING
GLEÐI



Framkvæmdalýsing

MANNVIT

Jörðin Sólheimar er alls um 3.200 ha að stærð.

Hvítir punktar sýna fyrirhugaða staðsetningu vindmylla skv. 1.áfanga (norðan vegar) og gráir punktar gefa til kynna staðsetningu vindmylla skv. 2.áfanga (sunnan vegar).

Tveir gulir punktar gefa til kynna staðsetningu safnstöðva raforku innan svæðis.

Í fyrsta áfanga er gert ráð fyrir allt að 20 vindmyllum og 85 MW.

Í öðrum áfanga er gert ráð fyrir 7 vindmyllum og 30 MW til viðbótar.

Gera þarf ráð fyrir aðkomuvegum að hverri vindmyllu innan svæðis.

Hæð vindmylla sem eru til skoðunar er frá 140-170 m og er þá reiknað með spaða í hæstu stöðu.

Við hverja vindmyllu þarf að útbúa kranaplan til að reisa vindmyllur og undirstöður fyrir vindmyllur (30 m að þvermáli).

Gert er ráð fyrir að um 150 manns vinni að uppsetningu þegar mest lætur (þó svo ekki verði sá fjöldi á einum tíma), en búast má við að verktími verði frá mars-nóvember.

Líklega þarf að staðsetja tímabundnar vinnubúðir innan svæðis.

Ákveða þarf hvort steypa verði flutt með steypubílum eða hvort sett verði upp tímabundin steypustöð innan svæðis.

7 SJÁLFBÆR ORKA

Helstu umhverfisþættir

- **Loftgæði** (umferð, framkvæmdir)
- **Hljóðvist** (umferð, framkvæmdir, vindmyllur)
- **Vatnafar** (framkvæmdir og uppbygging)
- **Náttúrufar-Fuglar, gróður** (rask v. framkvæmda, rekstrartími)
- **Ferðamennska** (skert aðgengi á framkvæmdatíma, tafir, sjónræn áhrif)
- **Fornleifar** (rask v. framkvæmda)
- **Nærsamfélag** (atvinna – einkum á framkvæmda og niðurrifstíma)
- **Heilsa og vellíðan** (samskipti nærsamfélags og vinnuafls á framkv.tíma)
- **Landslag og ásýnd** (vinnuvélar og tæki á framkv.tíma. Vindmyllur og tengdar framkv.)
- **Umferð og vegakerfi** (aukin umferð og flutningur stórra tækja)
- **Úrgangur** (meðhöndlun úrgangs)
- **Samlegðaráhrif** (önnur áform um vindorkugarða á svæðinu)

Figure 5.1– Key Environmental and Social Baseline Conditions

Geology, Soils and Flora

The terrain is smooth with small, rolling hills and numerous water bodies. The bedrock consists of tertiary basalt formations and the soil is fine and moderately acidic. The landscape is characterised by a mosaic of mire, heath, wetlands and upland grasslands with little to no trees and peat bogs scattered across the site. The vegetation is comprised of mostly grasses and primitive vegetation such as moss and lichen.

Climate and Surface and Ground Water

1

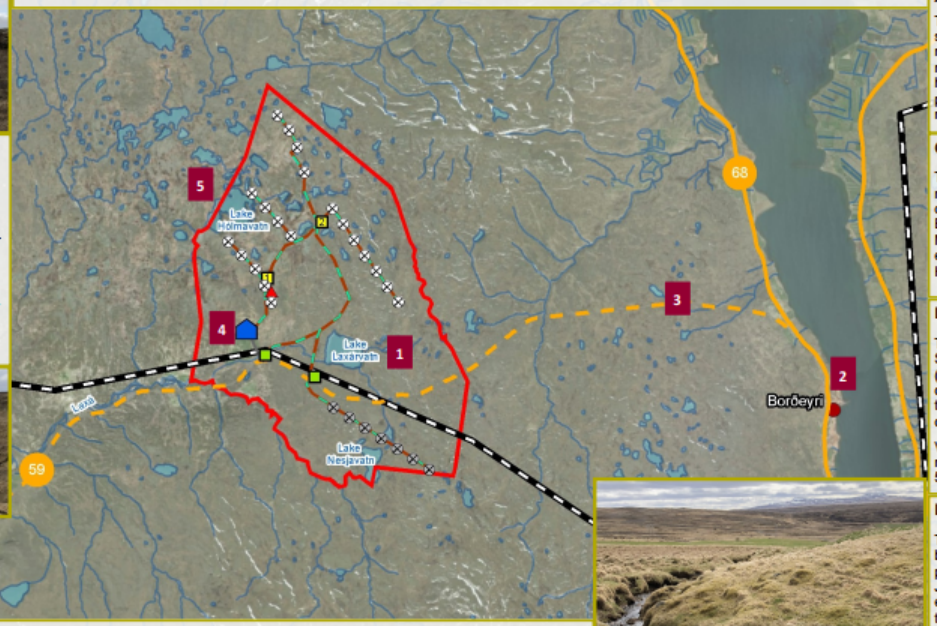
The average annual precipitation is low, approximately 690 mm/year. The average yearly temperature is around 3.7°C, with an average high of 6.9°C and an average low of 1.2°C. Due to the sub-Arctic climate, the site is typically covered in snow in the winter. In addition to the permanent water bodies on site, the snow melt creates numerous temporary water bodies in the spring. There are several wetland features, lakes and ponds present on site, including Hólmavatn, Laxárvatn and Nesjavatn lakes, all of which lie within the project boundary. Laxár River, which runs parallel along Road 59, is fed by lake Laxárvatn and is used for salmon fishing approximately 1 km downstream from the Project site.

Biodiversity

The site lies within the Laxárdalsheiði Important Bird and Biodiversity Area (IBA), which encompasses 56,700 ha of wetland plateau and is recognised as an internationally important breeding site known to support 1.8% of the whooper swan (*Cygnus Cygnus)* population and about 5% of the Iceland great northern diver (*Gavia immer*) population, approximately 10 km east of the site.

During initial Vantage Point surveys in May 2019, pairs of red-throated diver (*Gavia stellata*) whooper swan, greylag geese (*Anser anser*) and great black-backed gull (*Larus marinus*), as well as a single pair of great northern diver, and a flock of 19 greater scaup (*Aythya marila*) were recorded on the larger waterbodies. No birds were recorded on the smaller waterbodies. Rock ptarmigan (*Lagopus muta*) are also present in the site area, moving from snowy areas on the hills to the lower lying moors to feed before they roost. Ptarmigan are popularly hunted in Iceland. A high abundance and diversity of breeding avaian species are expected in the Project site into the breeding season, including species such as the red-necked phalarope (*Phalaropus lobatus*) and the long tailed duck (*Clangula hyemalis*).

There is limited non-avian terrestrial fauna present in the area, including the arctic fox (*Vulpes lagopus*), sheep, and mink.



Greenhouse Gas

The peat bogs located across the Project site are a carbon sink. Disturbance of the peat could potentially release the stored greenhouse gases; however, these areas will be mapped during baseline studies to avoid disturbance.

Aviation, EMI and Telecommunications

There are three domestic airports in the region, Stykkisholmur Airport (70km southwest), Blönduós flugvöllur (70km northeast), Gjögur Airport (90km north). The site is 150km from Keflavik International Airport. There is a possibility that private aircrafts may fly over the area at lower altitudes. A separate aviation, electro-magnetic interference (EMI) and telecommunications assessment will be completed in consultation with the aviation authority.

Cultural Heritage

There is no known significant cultural heritage sites within the Project site; however, it is noted that the first round of archaeological records in Iceland is not yet complete and the significance and sensitivity of any potential features will be investigated during the baseline studies and through discussions with the Natural Heritage Agency.

Cumulative Impacts

There are currently two other windfarm projects being considered in the West Fjords. The potential for cumulative impacts with these developments and any other developments in the general area will be assessed in further detail in the ESIA.

Traffic and Transport

3

Traffic in and around the Project site is likely to be minimal, as Road 59 supports an average maximum of 370 cars per day. The road is partly paved and part gravel. Occasionally, traffic is diverted down Road 59 in cases when Route 1 is closed. This could result in a sudden increase in traffic through the Project area as Route 1 to the east and west of the site saw a an average maximum of 2,678 and 3,319, respectively.

Ambient Noise

4

The site is in a remote area where the closest source of noise is the secondary Road 59, which runs through the southern end of the site. The main road is about 6 km from the Project site. The Sólheimar Farm is approximately 800 m away from the proposed nearest turbine and the next closest summer house is 2.5 km away.

Community

2

The Project site is on the eastern border of the municipality of Dalabyggð, which has about 670 residents. The main settlement of the municipality, Búðardalur, lies about 23 km west of the Project site. Meanwhile, the small hamlet of Borðeyri lies 7 km east of the site in the neighbouring municipality of Húnaþing Vestra.

Land Use, Landscape and Visual Setting

The Project site is currently used for agriculture by Solheimar Farm. The site also supports fishing areas (as described in "Tourism") and may also be accessed by communities for hunting Ptarmigan during the hunting season from late October to early December.

Views across the site are unobstructed from the nearby communities and public roads, such as Road 59 which crosses directly through the site.

Local Economy

The economy in the West Fjords is almost entirely based on fisheries; however the Dalabyggð municipality is one of the agricultural regions in the area. Jobs in the area mostly consist of agriculture; however few live exclusively by farming. In recent years tourism and fish farming have been increasing industries in West Fjords.

Tourism

5

The Project site is very remote and experiences little tourism. There are no sites within the Project area designated for visual amenity or historical reference; however, the area is well known for fishing and two lakes on site (Laxárvatn and Hólmavatn) are visited for brown trout fishing between May and September, whilst the Laxár River is visited for salmon fishing (June to mid-September). Registration for fishing is filed through Solheimar Farm, visitors are able to camp onsite; however no toilets or hygiene facilities are provided.

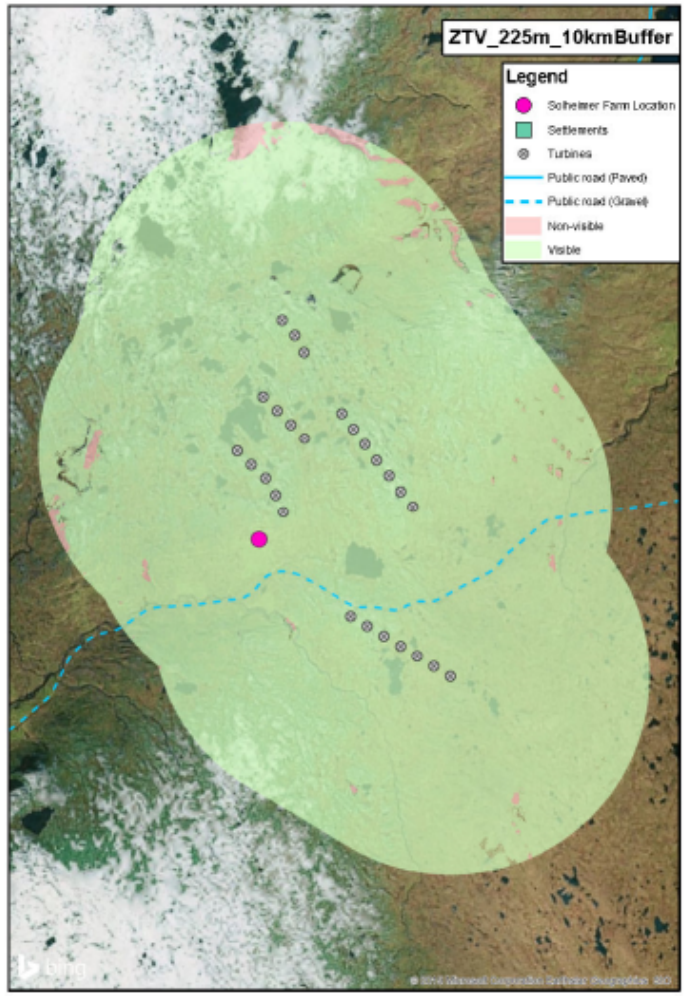
Helstu umhverfisþættir

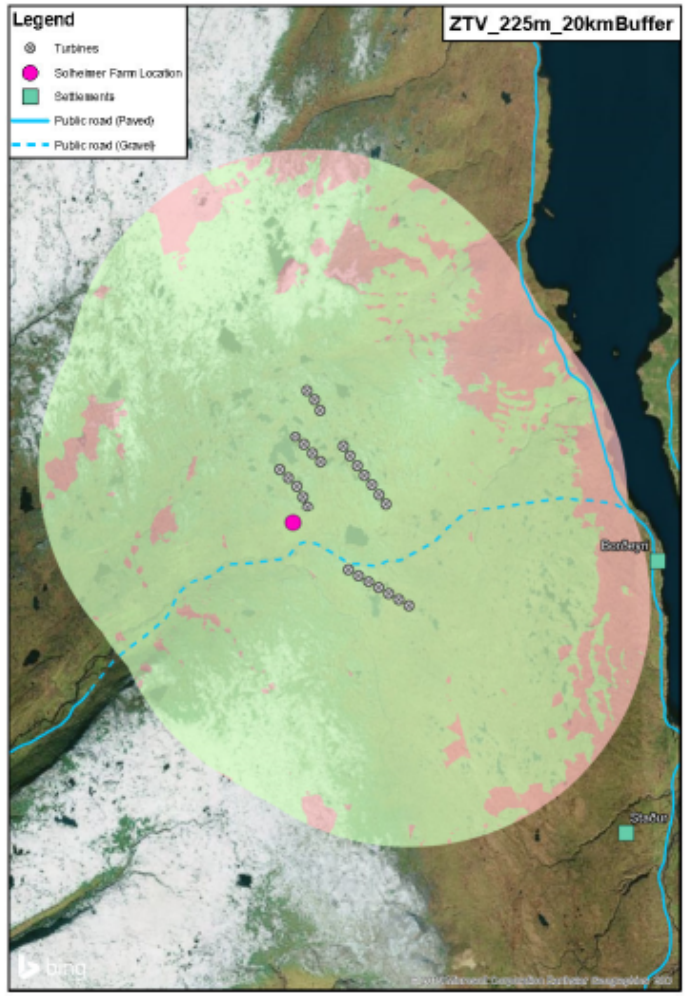
Technical Scope

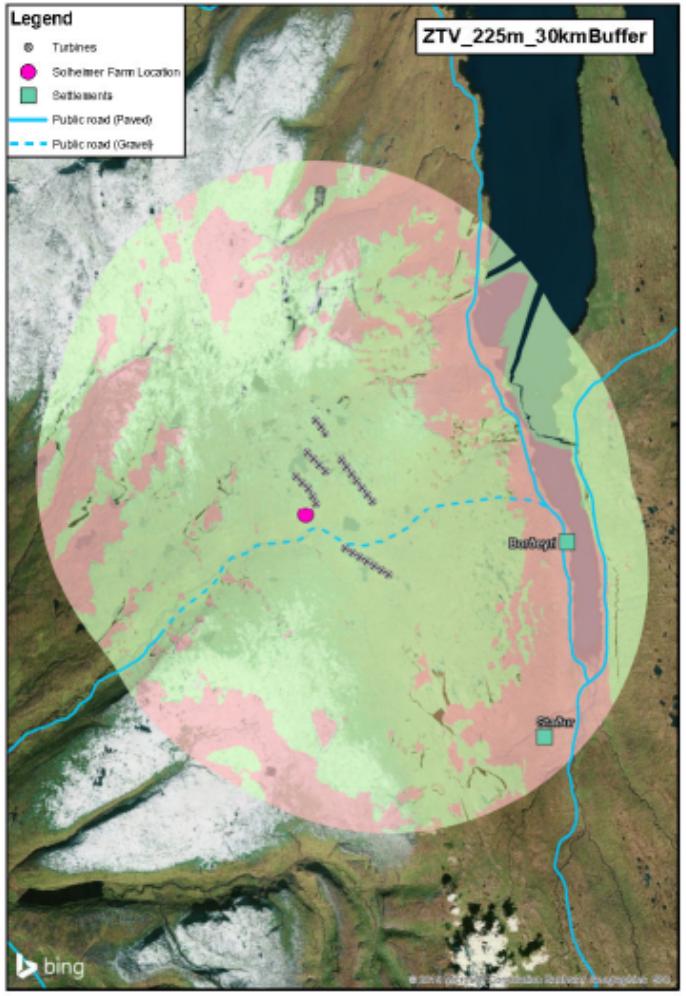
The range of environmental and social topics to be addressed in the ESIA is referred to as the *technical scope*. An assessment will be undertaken by specialists for each of the topics that have been scoped into the ESIA. The environmental and social issues that comprise the technical scope of the ESIA and the reasons for their inclusion are set out below. Note decommissioning impacts have been assumed to be comparable to construction phase impacts.

Topic	Phase	Potential source of impact	Scoped in	Scoped out	Spatial Scope	Potential affected receptors
Air quality	Construction / Decommissioning	Road traffic (dust and combustion)	✓		400m from roads and construction sites	Human health. (Note: all air quality impacts to ecology receptors have been scoped out.)
	Construction / Decommissioning	Earthworks	✓			
	All phases	Road traffic (combustion)		✓		
Ambient Noise	All phases	Road traffic		✓	1 km from activities during all phases	Solheimar Farm and nearby communities
	Construction / Decommissioning	Earthworks and construction of windfarm	✓			
	Operation	Turbine operation and windfarm maintenance	✓			
Surface and Groundwater	Construction / Decommissioning	Earthworks and construction of windfarm and access roads	✓		Ponds, lakes and rivers within the Project footprint and proximity	Ponds, lakes and rivers within the Project footprint and proximity
	Operation	Potential contamination events (e.g. oil spills) during operation and maintenance		✓		
Biodiversity (Birds, Flora and Fauna)	Construction / Decommissioning	Site clearance and construction of windfarm	✓		2 km buffer around footprint of construction works, plus Laxárdalsheiði Key Biodiversity Area (KBA) / Important Bird & Biodiversity Area (IBA)	Birds, flora and fauna. Potential impacts on qualifying features of KBA and IBA designations will be assessed.
	Operation	Wind turbine operation, on site electrical infrastructure and maintenance	✓			
Tourism	Construction / Decommissioning	Restricting access to site during construction, visual impact or traffic delays	✓		Construction footprint (less than 1% of total site area), onsite access and public road network during construction	Tourists in vicinity or recreational users of the site (i.e. fishermen, hunters)
	Operation	Visual impact of wind turbines	✓			
Cultural heritage	Construction / Decommissioning	Site clearance and earthworks	✓		Construction footprint	Chance finds, intangible heritage
Local Economy	All phases	Employment (mostly during construction and decommissioning)	✓		Surrounding local communities, (i.e. Búðardalur and Borðeyri) and region	Nearby settlements and wider regional/national economy
Land Use and Land Take	Construction / Decommissioning	Agricultural land take		✓	Land used within the Project footprint (i.e. Solheimar Farm)	Scoped out, land take during construction is within a limited area (less than 1% of total site)
	Operations	Agricultural land take		✓		
Community Health and Safety	All phases	Community / workforce interactions (primarily for construction)	✓		Surrounding local communities (i.e. Búðardalur and Borðeyri), road users on existing roads and workers.	Nearby communities and road users
Landscape and Visual	All phases	Presence of construction equipment (temporary), turbines and Project infrastructure (permanent) in a natural landscape	✓		Public road network utilised for the Project and communities within 10km of the site.	Nearby, residents communities and road users
Traffic and road infrastructure	Construction / Decommissioning	Increased road traffic and transportation of oversized or heavy loads	✓		Regional and local public road network	Users of the public road
Waste	All phases	Waste disposal and management	✓		On-site waste management and location of off-site waste treatment and disposal facilities utilised by the Project.	Infrastructure (waste disposal sites), soil and groundwater near sites
Cumulative Impacts	All phases	Other developments in the area (e.g. other windfarm developments)	✓		Various depending on type of development, within 30km	Birds, changes to landscape character and land take
Climate Change	All phases	Greenhouse gas generating activities *(scoped out as operational emissions will be below 25,000 tonnes CO_2e per year)*		✓	N/A	N/A
	All phases	Climate change risk assessment (scoped out as low risk of climate change impacting the Project (e.g. increased flood risk))		✓	N/A	N/A

ZTV-Fræðilegur sýnileiki







Möguleg ásýnd