RAFORKUFRAMLEIÐSLA ÚR VINDORKU

Samanburður á gildandi laga- og reglugerðarumhverfi nokkurra landa

23. nóvember 2022

BBA // FJELDCO

EFNISYFIRLIT

Til:	Umhverfis-, orku- og loftlagsráðuneytið
Frá:	BBA//Fjeldco
Dagsetning:	23. nóvember 2022
Efni:	**Samantekt á gildandi laga- og reglugerðarumhverfi nokkurra ríkja varðandi raforkuframleiðslu úr vindorku**

1. INNGANGUR

1.1 Með verksamningi dagsettum 10. maí 2022, komust Umhverfis-, orku- og loftlagsráðuneytið (hér eftir „URN“) og BBA//Fjeldco að samkomulagi um lögfræðiþjónustu. URN vinnur að mótun reglna um hagnýtingu vindorku á Íslandi og málsmeðferð hjá hinu opinbera í tengslum við leyfisveitingar, skipulag o.fl. vegna slíkra framkvæmda. Við þessa vinnu taldi URN gagnlegt að til staðar væru greinargóðar upplýsingar um meginþróun og stöðu lagaumhverfis, aðferðarfæði og leyfisveitingaferli landa sem þegar hafa hafið nýtingu vindorku til raforkuframleiðslu með góðum árangri.

1.2 URN óskaði eftir því að BBA//Fjeldco myndi safna saman upplýsingum frá nokkrum ríkjum um laga- og reglugerðarumhverfi, hlutverk stjórnvalda og sveitarfélaga, leyfisveitingar og ýmis önnur álitamál sem tengjast raforkuframleiðslu úr vindorku. BBA//Fjeldco var sérstaklega beðið um að horfa til landa sem nýta vindorku og framleiða úr henni rafmagn með góðum árangri og voru URN og BBA//Fjeldco sammála um að horfa til landa sem teljast leiðandi á sviði raforkuframleiðslu úr vindorku á Norðurlöndum og í Norður-Evrópu og sem náð hafa góðum árangri á undanförnum árum með fjölbreyttum vindorkuverkefnum. Þá var einnig talið mikilvægt að fá samanburð við önnur OECD ríki og ríki þar sem ytri- og innri aðstæður eru sambærilegar aðstæðum á Íslandi. Úr varð að URN og BBA//Fjeldco völdu eftirfarandi þjóðir fyrir sértækan samanburð: (i) Danmörk, (ii) Noreg, (iii) Skotland og (iv) Nýja Sjáland. Í skýrslu þessari má finna samantekt og eftir atvikum samanburð á helstu lykilatriðum í lagaumhverfi umræddra fjögurra ríkja, sem hér eftir verða nefnd samanburðarríkin. Til frekari dýpkunar á samanburði framkvæmdi BBA//Fjeldco einnig sjálfstæða rannsókn á gildandi lögum og reglugerðum í samanburðarríkjunum sem og í nokkrum öðrum ríkjum, nánar tiltekið (i) Frakklandi, (ii) Hollandi og (iii) Svíþjóð, sem hér eftir verða nefnd viðbótarríkin. Þar sem upplýsingar um viðbótarríkin voru taldar varpa frekara ljósi á þróun eða framkvæmd reglugerðarumhverfis um raforkuframleiðslu úr vindorku, var slíkum upplýsingum bætt inn á viðeigandi stöðum í skýrslunni.

1.3 Skýrsla þessi inniheldur aðeins samantekt á helstu lögfræðilegu álitamálum tengdum raforkuframleiðslu úr vindorku og telst ekki tæmandi upptalning á öllum álitamálum sem tengjast vindorku eða undirbúningi og framkvæmd vindorkulöggjafar. Sé þess óskað mun BBA//Fjeldco veita URN frekari upplýsingar um nánar tilgreind atriði.

2. SAMANTEKT

2.1 Eftir samanburð á laga- og reglugerðarumhverfi vindorkuverkefna í samanburðarríkjunum má draga helstu niðurstöður saman á eftirfarandi hátt:

(a) Samanburðarríkin eiga það sameiginlegt að byggja á sterkri pólitískri stefnumótun sem nýlega hefur verið endurskoðuð og uppfærð. Stefnumótun allra samanburðarríkjanna miðar að aukinni raforkuframleiðslu úr endurnýjanlegum orkugjöfum, þar á meðal vindorku, og er útlit fyrir að vindorka muni gegna mikilvægu hlutverki við græn orkuskipti á komandi árum. Pólitísk stefnumótun samanburðarríkjanna tekur sífelldum breytingum og frekari uppfærslur eru væntanlegar.

(b) Öll samanburðarríkin gera ráð fyrir aukinni raforkuframleiðslu úr vindorku á komandi árum. Það vekur athygli að samanburðarríkin horfa í ríkara mæli á vindorkuvinnslu á sjó og vænta má mikillar uppbyggingar slíkra verkefna. Stjónvöld í Danmörku og Noregi hafa nýlega lýst yfir vilja til að auka til muna vinorkuvinnslu á sjó. Í Danmörku á að fimmfalda vinnslu fram til ársins 2030 og í Noregi á að fjölga vindtúrbínum á sjó úr tveimur í 1500 á næstu 20 árum. Danmörk er að prófa sig áfram með svokallaðar orkueyjar (*e. energy islands*) og ríkisstjórnir Danmerkur, Þýskalands, Belgíu og Hollands hafa nýlega undirritað yfirlýsingu um mikla uppbyggingu vindorkuverkefna í Norðursjó.

(c) Samanburðarríkin hafa öll í gildi ákveðinn laga- og reglugerðarramma í kringum vindorkuverkefni sem þó er ólíkur þeirra á milli. Mismunandi er hvort ákvarðanataka um leyfisveitingu er á sveitastjórnarstigi eða hvort ákvarðanir eru teknar af hinu opinbera, þá annað hvort af ráðherra eða undirstofnun ráðuneytis. Ákvarðanir um leyfisveitingu á landi eru að jafnaði frekar teknar á sveitarstjórnarstigi eða í það minnsta með ríkri aðkomu sveitarfélaga á meðan hið opinbera, að jafnaði ráðherra, hefur með höndum ákvörðunarvald um leyfisveitingar til vindorkuverkefna á sjó.

(d) Í öllum samanburðarríkjunum virðast vindorkuverkefni á landi oft hljóta talsverða gagnrýni, og þá frekari gagnrýni en vindorkuverkefni á sjó. Aðilar með undirliggjandi hagsmuni, hvort sem um er að ræða íbúa á nærliggjandi landsvæðum eða aðra, sem þá telja að af verkefni muni stafa t.d. sjónmengun eða hávaðamengun, hafa ólíkar leiðir til að koma skoðunum sínum á framfæri. Í flestum tilfellum er gert ráð fyrir aðgengi almennings að umsóknargögnum verkefna áður en til útgáfu leyfis kemur og einstaklingum og öðrum hagsmunaaðilum gefinn kostur á að koma skoðunum sínum og athugasemdum á framfæri.

(e) Aðgangur að landi og val á landsvæði undir vindorkuverkefni á landi er eitthvað sem rétt er að skoða vel. Það er mismunandi á milli samanburðarríkjanna hvaða möguleika framkvæmdaraðilar hafa til að velja landsvæði undir verkefni, þ.e. hvort aðeins er hægt að hefja verkefni á landsvæði sem hefur verið fyrirfram skilgreint af opinberum aðilum og samþykkt fyrir vindorkuverkefni eða hvort framkvæmdaraðili geti lagt til annað landsvæði þegar sótt er um leyfi og þá á hvaða grundvelli og hvaða gögn þurfa að liggja til grundvallar. Í seinna tilfellinu getur verið nauðsynlegt að breyta deiliskipulagi til að veita verkefni framgang.

(f) Að sama skapi ber að skoða hvernig val á svæði undir vindorkuverkefni á sjó fer fram. Í ákveðnum samanburðarríkjum hefur farið fram opinbert mat á hafsvæðum undir vindorkuverkefni. Í öðrum hefur slíkt opinbert mat ekki farið fram og í stað þess gefst framkvæmdaraðilum kostur á að tilnefna svæði sem þeir telja álitlegt, að teknu tilliti til fjölmargra undirliggjandi þátta.

(g) Upphaf og frumkvæði vindorkuverkefna er eitthvað sem rétt er að skilgreina og e.t.v. velta því upp hvort munur sé á milli verkefna á landi og á sjó. Í ákveðnum samanburðarríkjum eru útboð algeng vegna vindorkuverkefna á sjó og þá oft á grundvelli nánar tilgreinds hafsvæðis. Vert er að skoða hvort rétt sé að bjóða út tiltekin vindorkuverkefni eða eftirláta áhugasömum framkvæmdaraðilum að eiga frumkvæði að því að sækja um leyfi fyrir tilteknu verkefni.

(h) Greiðslur til landeiganda í samanburðarríkjunum fjórum eru að jafnaði gerðar á hefðbundum viðskiptakjörum og landeigandi á rétt á sanngjarnri greiðslu fyrir afnot af landi. Greiðslur til ríkisins vegna afnota af ríkislandi eru að sama skapi gerðar á hefðbundnum leigukjörum, þ.e. sambærilegum kjörum og einkaðilar. Sé landeigandi andvígur því að land sé nýtt í vindorkuverkefni eru fyrir hendi heimildir til eignarnáms, oft í framhaldi af hagsmunarmati vegna umrædds verkefnis. Um eignarnám gilda hefðbundnar reglur í hverju samanburðarríki, sambærilegar þeim reglum sem gilda á Íslandi um eignarnám.

(i) Í öllum samanburðarríkjunum má finna sterkan laga- og reglugerðarramma í kringum hin ýmsu álitmál tengdum umhverfismálum og mati á umhverfisáhrifum. Í Svíþjóð og Skotlandi eru reglur að mestu sambærilegar reglum í öðrum ríkjum Evrópusambandsins. Ákveðinn rammi umhverfismála í samanburðarríkjum er sambærilegur og hér á landi, sökum innleiðingar á hinum ýmsu tilskipunum og reglugerðum Evrópusambandsins. Í tengslum við mat á umhverfisáhrifum þarf að skoða sérstaklega hvort slíkt mat sé framkvæmt af einkaðila, og þá á forsjá framkvæmdaraðila, eða með hvaða hætti stjórnvöld og aðrir opinberir aðilar koma að mati á umhverfisáhrifum og á hvaða stigi verkefnis. Eðli vindorkuverkefna hefur í för með sér að verkefni kunna að hafa áhrif á náttúru og dýralíf. Þá fylgir slíkum verkefnum ávallt ákveðin mengun, þá helst sjónmengun og hljóðmengun, sem er algengt ádeiluefni í tengslum við vindorkuverkefni. Af þessum sökum horfa samanburðarríkin m.a. frekar til þróunar á vindorku á sjó á komandi árum.

(j) Í samanburðarríkjunum fjórum eru mjög afmarkaðar ívilnanir eða annar opinber stuðningur við raforkuverkefni. Ríkin eiga það þó sameiginlegt að hafa sett víðtækari reglur um ívilnanir eða stuðning á fyrri stigum í þróun vindorkuverkefna, þ.e. þegar ekki var komin sama reynsla á raforkuframleiðslu úr vindorku og raunin er nú. Í dag eru slíkar ívilnanir taldar óþarfar en einhver eldri verkefni njóta enn ívilnana sem veittar voru á árum áður. Athyglisvert er að bæði í Noregi og Nýja Sjálandi, þar sem raforkuframleiðsla úr vindorku á sjó er styttra á veg komin, er talið líklegt að einhver stuðningur eða ívilnanir verði í boði á næstu árum til að styðja við uppbyggingu slíkra verkefna.

(k) Í tengslum við leyfisveitingar hefur hvert samanburðarríki sett ramma í tengslum við gjöld sem greiða ber fyrir útgáfu leyfis. Erfitt er að leggja nákvæmt mat á þær fjárhæðir enda geta undirliggjandi aðstæður skipt máli, svo sem stærð verkefnis, umfangs og fyrirhuguð framleiðsla. Aðrar beinar tekjur af vindorkuverkefnum eru takmarkaðar í samanburðarríkjunum. Vindorkuver í samanburðarríkjunum greiða að jafnaði sama tekjuskatt og önnur opinber gjöld og önnur fyrirtæki í atvinnurekstri og eru ekki skattlögð sérstaklega umfram önnur fyrirtæki. Rétt er þó að geta að í Noregi hafa stjórnvöld nýlega innleitt lagabreytingar sem stuðla að skattlagningu raforkuframleiðslu í vindorkuverum á sjó og í Frakklandi er sérstök skattlagning bæði á vindorkuver á sjó og landi.

(l) Hvað varðar tengingu vindorkuvera við dreifi- og flutningskerfi raforku í samanburðarríkjunum er áhugavert að sjá að sé kostnaður við nýtengingu mikill, t.d. vegna staðsetningu verkefnis, hafa ákveðin samanburðarríki heimildir til að krefja framkvæmdaraðila um endurgreiðslu á kostnaði eða að framkvæmdaraðili standi straum af kostnaði í heild eða að hluta. Grundvallarmundur er að jafnaði á möguleikum á tengingum við flutningskerfi raforku eftir því hvort verkefni eru á sjó eða á landi. Sem fyrr segir er Danmörk að þróa orkueyjar (*e. energy islands*) en einn tilgangur þeirra er m.a. að tryggja hagkvæmni í flutningi raforku til lands. Álitamál um aðgang að dreifi- og flutningskerfi raforku eru einnig beintengd þeim möguleikum sem standa til boða við upphaf verkefna, þ.e. hvort stjórnvöld hafi skilgreint sérstök svæði og veiti leyfi á grundvelli útboðs eða hvort einstaka framkvæmdaraðilar geti óskað eftir leyfi til uppbyggingar vindorkuverkefnis utan svæðis sem skilgreint hefur verið í slíkum tilgangi.

(m) Ágreiningsmál um útgáfu leyfa til vindorkuvinnslu og uppbyggingu vindorkuverkefna fylgja að jafnaði sama ferli og önnur ágreiningsmál í samanburðarríkjunum. Útgáfa leyfa er að jafnaði kæranleg á stjórnsýslustigi og eftir að kæruleiðir hafa verið tæmdar er hægt að bera ágreining undir dómstóla. Kæruleiðir eru að jafnaði aðgengilegar þriðju aðilum, t.d. hagsmunasamtökum eða einstaklingum sem geta átt undirliggjandi hagsmuna að gæta, svo sem vegna nálægðar við fyrirhugaða uppbyggingu.

3. AÐFERÐAFRÆÐI

3.1 Að mati BBA//Fjeldco og URN var mikilvægt að njóta liðsinnis leiðandi sérfræðinga í þeim fjórum ríkjum sem valin voru til samanburðar. BBA//Fjeldco hafði samband við lögfræðistofur þar sem starfa sérfræðingar með mikla þekkingu á sviði endurnýjanlegrar orku og þá sérstaklega vindorku.

3.2 Samstarfsaðilar BBA//Fjeldco og URN í verkefni þessu voru:

Danmörk	**Horten Advokatpartnerselskap** Philip Heymans Allé 7, DK-2900 Hellerup, Copenahagen. René Frisdahl Jensen Søren Hornbæk Svendsen Klavs A. Gravesen Astrid Maj Blumensaadt	HORTEN
Noregur	**Arntzen de Besche Advokatfirma AS** Ruseløkkveien 30, 0251 Oslo, Norway. Ane Stanger Tronrud Aleksander Dypvik Myklebust Odd-Harald Berg Wasenden	ARNTZEN DE BESCHE
Skotland	**Brodies LLP Solicitors** 110 Queen Street, Glasgow, G1 3BX Scotland UK Sarah-Jane McArthur Karen Hamilton Alix Bearhop,	BRODIES
Nýja Sjáland	**Russell McVeagh** 48 Shortland Street, Auckland 1140, New Zealand. Daniel Minhinnick Craig Shrive Alice Gilbert	Russell McVeagh

3.3 BBA//Fjeldco lagði drög að spurningalista sem innihélt spurningar um ýmis álitaefni tengd raforkuframleiðslu úr vindorku, þ.m.t. uppbyggingu á laga- og reglugerðarumhverfi, ákvarðanatöku, aðkomu stjórnvalda, sveitarfélaga og annarra stofnana að leyfisveitingu,

umhverfismálum, tengingu við dreifikerfi, ívilnanir o.fl. Spurningalistinn var borinn undir URN til samþykktar áður en hann var sendur á framangreinda samstarfsaðila í Danmörku, Noregi, Skotlandi og Nýja Sjálandi. Spurningalistann, á ensku, má finna í viðauka 1 við skýrsluna. Samstarfsaðilarnir voru beðnir um að skila af sér svörum innan ákveðins tímafrests. Svör við spurningalistunum, eins og þau komu frá framangreindum samstarfsaðilum, má finna í viðaukum 2 til 5. Líkt og spurningalistinn, þá eru svörin frá samstarfsaðilunum á ensku.

3.4 Svörin sem samstarfsaðilarnir veittu við spurningalistanum mynda grunnurinn að skýrslunni og eru svörin fyrir hvert samstarfsland fléttuð inn í umfjöllun um tiltekin álitaefni. Reynt er að gera öllum samanburðarríkjunum jafnt undir höfði en þar sem samstarfsaðilarnir gáfu sérstaklega greinagóð svör eða þar sem svörin voru talin sérlega mikilvæg í samanburðartilgangi, má finna ítarlegri umfjöllun um eitt samanburðarríki umfram önnur.

3.5 Í kjölfar fundar BBA//Fjeldco og URN þann 25. ágúst 2022 óskaði URN eftir frekari upplýsingum um nánar tiltekin atriði tengdum laga- og reglugerðarumhverfi samanburðarríkjanna. BBA//Fjeldco lagðist í sjálfstæða rannsóknarvinnu til að fá betri skilning á þeim málum sem þar voru rædd og leitaði auk þess staðfestingar og álits samstarfsaðila á á ákveðnum álitaefnum.

4. TÖLFRÆÐIUPPLÝSINGAR

4.1 Samstarfsaðilarnir voru beðnir um að veita ákveðnar tölfræðiupplýsingar sem BBA//Fjeldco taldi mikilvægt að hafa til hliðsjónar í tengslum við samanburð á reglugerðarumhverfi samanburðarríkjanna. Spurningarnar vörðuðu raforkuframleiðslu viðkomandi landa, hlutafall endurnýjanlegrar orku af heildar raforkuframleiðslu sem og hlutfall raforkuframleiðslu úr vindorku.

Spurning	***Danmörk***	***Noregur***	***Skotland***	***Nýja Sjáland***
Uppsett rafafl	15,5 GW	38,7 GW	20,7GW	9,8 GW
Hlutfall raforkuframleiðslu úr endurnýjanlegri orku (%)	68%	95%	61.8%	82%
Uppsett rafafl úr vindorku. *Skipting á milli framleiðslu á landi og á sjó.*	Á landi: 4,6 GW Á sjó: 1,7 GW	Á landi: 2,9 GW Á sjó: Á ekki við	Á landi: 8,3 GW Á sjó: 0,9 GW	Á landi: 0,689 GW Á sjó: Á ekki við
Hlutfall raforku sem framleidd er úr vindorku af heildar raforkuframleiðslu (%).	40.4%	7.5%	44.4%	7%
Hvaða ár hófst raforkuvinnsla úr vindorku.	1970	1992	1991	1993
Fjöldi vindmylla (e. wind turbines) í rekstri.	Samanlagður fjöldi á landi og á sjó: 6.271	Á landi: 1.298	Á landi: 4.496 Á sjó: 165	Á landi: 490

4.2 Líkt og framangreind tafla sýnir er talsverður munur á heildar raforkuframleiðslu á milli ríkja en stærsti hluti raforku í viðmiðunarríkjunum kemur frá endurnýjanlegum orkugjöfum, eða á bilinu 61,8% til 95%, en Noregur ber af með 95% raforkuframleiðslu úr endurnýjanlegum orkugjöfum. Danmörk og Skotland eru að framleiða hlutfallslega mest af rafmagni úr vindorku, eða 40,4% af heildar raforkuframleiðslu í Danmörku og 44,4% af heildar raforkuframleiðslu í Skotlandi. Hlutfallið er lægra í bæði Noregi og Nýja Sjálandi, eða 7,5% fyrir Noreg og 7% fyrir Nýja Sjáland. Noregur og Nýja Sjáland eru sem stendur ekki að

framleiða rafmagn úr vindorku á sjó en bæði ríki horfa þó með jákvæðum hætti á slíka framleiðslu og eru að undirbúa slíka þróun, líkt og frekar verður fjallað um aftar í skýrslunni. Það er rétt að geta þess að öll samanburðarríkin gera ráð fyrir auknum hlut raforkuframleiðslu úr vindorku á næstu 5 árum og öll ríkin horfa til vindorku sem lið í grænum orkuskiptum, eins og nánar verður fjallað um í málsgreinum 5.1 til 5.7 hér að aftan.

5. AÐKOMA STJÓRNVALDA AÐ VINDORKUVERKEFNUM OG GILDANDI LAGAUMHVERFI

Stefnuáætlun stjórnvalda varðandi nýtingu vindorku

5.1 Stjórnvöld allra samanburðarríkjanna fjögurra virðast hafa sett sterka stefnu eða stefnuáætlanir ásamt tillögum um hvernig auka megi hlut grænnar orku á kostnað jarðefnaeldsneytis. Hvert ríki hefur nýlega gefið út eða birt uppfærða stefnu í orkumálum og eiga þessar stefnur það sameiginlegt að styðja við bakið á aukinni grænni raforkuframleiðslu, þar sem vindorku er ætlað að spila ákveðið lykilhlutverk. Af því leiðir að þróun vindorku og vindorkuverkefna í hverju ríki byggir á sterkri stefnuáætlun stjórnvalda um nýtingu vindorku sem setja vindorkuframleiðslu ákveðinn ramma. Telja verður að slíkar stefnuáætlanir séu mikilvægur hluti af góðum árangri vindorkuverkefna. Ofan á stefnuáætlanir og yfirlýsingar stjórnvalda er síðan hægt að byggja traust laga- og reglugerðarumhverfi, vindorkuverkefnum til hagsbóta.

5.2 Danska ríkisstjórnin kynnti umbótatillögu sína „***Danmark kan mere II***“ í apríl 2022. Með tillögunni stefnir danska ríkisstjórnin á að auka hraða orkuskipta og einn lykill í þeim áætlunum er að bjóða upp á viðbótar vindorkuverkefni á sjó, allt að 1-4 GW, fyrir árslok 2030, til viðbótar við fyrri samninga um viðbótar vindorkuverkefni allt að 16GW í Norðursjó. Í lok júní síðastliðnum samþykkti Alþingi í Danmörku stofnun á grænum fjárfestingarsjóð og endurnýjanlegum orkupakka (e. *renewable energy package*) sem áætlað er að muni fjórfalda raforkuframleiðslu úr vindorku á landi og sólarorku fram til ársins 2030 og fimmfalda raforkuframleiðslu úr vindorku á sjó. Danska ríkisstjórnin hefur þar með sett stefnuna á frekari þróun og uppbyggingu á raforkuframleiðslu úr endurnýjanlegum orkuauðlindum og vill útrýma þörfinni fyrir innflutning á gasi.

5.3 Noregur setur fram sínar stefnur í svokölluðum hvítbókum norska þingsins (*e*. *white paper*), þar sem nýjasta alhliða stefna stjórnvalda var kynnt í júní 2021 og frekari viðbætur voru birtar í apríl 2022. Samkvæmt hvítbókum norska þingsins er það áætlun norsku ríkisstjórnarinnar að stuðla að grænum orkuskiptum og greiða fyrir arðbærari framleiðslu á endurnýjanlegri orku auk þess að styðja við raforkukerfi. Í júní 2021 var sérstaklega tekið fram að mikil tækifæri væru til uppbyggingar með nýtingu vindorku á sjó og að raforkuframleiðsla á sjó væri iðnaðartækifæri fyrir Noreg. Með yfirlýsingu í maí 2022 staðfesti norska ríkið vilja sinn til mikillar uppbyggingar vindorkuverkefna á sjó og hefur sett það markmið að fjölga vindtúrbínum úr tveimur í 1500 á næstu 20 árum.

5.4 Skoska ríkisstjórnin birti orkustefnuárið 2017 og lagði grunn að framtíðarsýn fyrir orkumál í Skotlandi fyrir 2050 sem er byggð upp á sex ólíkum forgangsverkefnum. Eitt þeirra er greiðari aðgangur að endurnýjanlegum orkugjöfum og lágkolefnislausnum til að mæta áætlunum stjórnvalda um að draga úr losun gróðurhúsalofttegunda. Skotland býr einnig að yfirlýstum vindorkustefnum, bæði á sjó og á landi sem styðja við vindorkuverkefni. Stefna um vindorkuverkefni og nýtingu á landi var gefin út 2017 og síðast uppfærð í október 2021. Stefnan er mjög jákvæð í garð frekari nýtingar vindorku á landi og leggur línurnar um hvernig megi styðja við frekari uppbyggingu en beinist einnig að þeim hindrunum sem standa í vegi fyrir frekari þróun vindorkuverkefna og hvernig megi bregðast við þeim. Stefna um vindorkuverkefni á sjó var gefin út árið 2020 og er í grunninn mjög jákvæð í garð frekari

nýtingar vindorku á sjó og lögð er áhersla á uppbyggingu og samþykki nýrra vindorkuvera á hafi.

5.5 Nýja Sjáland stefnir á 90% endurnýjanlegan raforkumarkað fyrir árið 2025 og 100% endurnýjanlegan raforkumarkað fyrir árið 2030. Stjórnvöld stefna á frekari virkjun vindorku til að ná því markmiði og telja að vindorka geti spilað stórt hlutverk í orkuskiptum. Stjórnvöld hafa jafnframt sett stefnur um hvernig nýta megi endurnýjanlegar orkuauðlindir í stað jarðefnaeldsneytis og almennt draga úr losun gróðurhúsalofttegunda. Nýja Sjáland býr einnig að stefnuyfirlýsingu um endurnýjanlega raforkuframleiðslu frá 2011 sem setur markmið og stefnur fyrir endurnýjanlega orkuframleiðslu, þar á meðal vindorku, í samræmi við lög um auðlindastjórnun frá 1991. Stefnuyfirlýsingunni er ætlað að veita aukna vissu fyrir þróun endurnýjanlegra orkuauðlinda og aðstoða stjórnvöld við að ná markmiðum um 90% raforkuframleiðslu úr endurnýjanlegum orkuauðlindum fyrir árið 2025.

5.6 Danmörk hefur verið á áhugaverðri leið með þróun á svokölluðum orkueyjum (*e. energy islands),* en orkueyjur virka sem ákveðnar miðstöðvar sem safna til sín raforku frá nærliggjandi orkuverum og dreifa raforku áfram, annað hvort inn á raforkukerfi Danmerkur eða til nærliggjandi landa. Þetta gerir það að verkum að auðveldara er að beina raforku frá svæði með miklar raforkuauðlindir til svæða sem þurfa á raforku að halda, á sama tíma og tryggt er að raforkan sé nýtt á hagkvæman hátt. Í júní 2020 var gerður loftslagssamningur þar sem ákveðið var að hefja vinnu við tvær orkueyjar, aðra í Norðursjó og hina í Eystrasaltinu, og fleiri orkueyjar eru í þróun í Danmörku. Á leiðtogafundi landa sem eiga landamæri að Norðursjó sem haldinn var í maí 2022 undirrituðu leiðtogar ríkisstjórna Þýskalands, Belgíu, Hollands og Danmerkur sameiginlega yfirlýsingu sem miðar að því að framleiða í sameiningu a.m.k. 65 GW af vindorku á hafi eigi síðar en árið 2030 og að auka þá framleiðslu í að minnsta kosti 150 GW árið 2050.

5.7 Af framangreindu má ráða að stefnuáætlanir stjórnvalda í samanburðarríkjunum um nýtingu vindorku eru mikilvægur grunnur, bæði hvað varðar lagaramma en eins framkvæmdir og framkvæmdaáætlun. Sterkar yfirlýsingar og stefnur stjórnvalda um vilja og stuðning til nýtingu raforku geta þannig stutt við frekari framþróun og áhuga hlutaðeigandi aðila til að fjárfesta í raforkuverkefnum. Þróun í Norðursjó er áhugaverð og ljóst að mikill áhugi er fyrir frekari nýtingu á vindorku á sjó í samanburðarríkjunum, líkt og stefna stjórnvalda í bæði Danmörku og Noregi bera með sér.

Laga- og reglugerðarumhverfi raforkuframleiðslu úr vindorku

5.8 Samstarfsaðilarnir voru spurðir spurninga um gildandi lög og reglugerðir í samanburðarríkjunum sem taka til raforkuframleiðslu úr vindorku og, eftir atvikum, um muninn á lögum og reglum á milli vindorkuverkefna á sjó og á landi. Gildandi löggjöf er talsvert breytileg á milli samanburðarríkjanna, þ.e. laga- og reglugerðarumhverfið er ólíkt. Lagarammi vindorkuverkefna spannar vítt svið en í samanburðarríkjunum er að jafnaði að finna raforkulöggjöf sem hefur að geyma ákveðin grunnatriði er snúa að vindorkuverkefnum, svo sem leyfisveitingu og skilyrðum leyfa. Önnur atriði er snúa að vindorkuverkefnum, svo sem atriði tengd umhverfisáhrifum eða skipulagsmálum, má að hluta leiða af gildandi löggjöf sem hefur víðara gildissvið, þ.e. viðkomandi löggjöf tekur ekki aðeins til vindorkuverkefna. Að sama skapi er vægi á milli laga og reglugerða mismunandi á milli samanburðarríkjanna,

þ.e. hvort tilteknar reglur eða viðmið komi fram í lögum eða í reglugerðum sem settar eru með heimild í lögum. Það er þó nokkur samhljómur um ákveðin atriði sem viðkoma laga- og reglugerðarumhverfi raforkuframleiðslu úr vindorku í samanburðarríkjunum.

5.9 Í eftirfarandi töflu má sjá yfirlit yfir þau svið í löggjöf samanburðarríkjanna sem oftast voru nefnd af samstarfsaðilunum sem hluti af reglugerðarumhverfi vindorkuverkefna.

Helstu laga- og reglugerðaflokkar tengdir vindorkuverkefnum	
• Orku- og raforkulöggjöf • Lög um flutningskerfi raforku • Lög um umhverfismat og umhverfisáhrif • Lög um mengun, friðlýsingu dýra eða plantna • Lög um tæknilegar útfærslur og kröfur til rafstöðva og vindmylla	
Vindorkuverkefni á landi	***Vindorkuverkefni á sjó***
• Land- og lóðaskráning • Skipulagslög og lög um deiliskipulag • Lög um eignarnám • Lög um menningarminjar • Lög eða reglugerðir um hávaða og hljóðmengun	• Siglingalög og siglingarskipulag • Hafréttur og sjávarlög • Lög um strandaðgang

5.10 Eins og við var að búast gildir um vindorkuverkefni í samanburðarríkjunum strangur lagarammi. Þegar hugað er að sértæk löggjöf sem tekur til vindorkuverkefna er að auki nauðsynlegt að endurskoða fjölmörg atriði sem einnig taka til undirbúnings og framkvæmdar vindorkuverkefna, til dæmis reglugerðir um deiliskipulag og byggingareglugerðir. Framangreind tafla veitir ekki fullnægjandi upptalningu á þeim lagabálkum og reglugerðum sem geta átt við á Íslandi en er ætlað að veita URN ákveðna hugmynd um hvaða svið lagarammans þurfa skoðunar við, þegar metin er þörf á sértækum lagaramma sem tengist vindorkuverkefnum.

5.11 Fyrir nákvæma upptalningu á gildandi lögum og reglugerðum í hverju samanburðarríki bendum við á svör við spurningu 2.2. í viðaukum 2 til 5 en þar má finna nákvæmari upptalningu frá hverjum samstarfaðila auk tilvísana í lög á frummáli, eftir því sem við á. Við bendum einnig á sérstaka samantekt í viðauka 7, þar sem finna má útdrátt úr svörum samstarfsaðila og nákvæmari útlistun á lagaumhverfi í hverju samanburðarríki fyrir sig.

Hlutverk stjórnvalda og annarra stofnana

5.12 Spurningar voru lagðar fyrir samstarfsaðilana um aðkomu stjórnvalda og stjórnsýsluaðila að vindorkuverkefnum í samanburðarríkjunum og samstarfsaðilarnir beðnir um að gera stuttlega grein fyrir hlutverkum stjórnvalda og starfsemi þeirra. Stjórnskipulagið er breytilegt á milli samanburðarríkjanna og í sumum eru skýr skil á milli aðkomu stjórnvalda og annarra stjórnsýsluaðila í annars vegar vindorkuverkefnum á landi og hins vegar vindorkuverkefnum

á sjó. Í eftirfarandi töflu má sjá samantekt helstu stjórnvalda og stofnana sem koma að þróun vindorkuverkefna í samstarfslöndunum. Fyrir nákvæma upptalningu á hlutaðeigandi stofnunum í hverju samanburðarríki bendum við á svör við spurningu 2.3 í viðaukum 2 til 5.

	Vindorkuverkefni á landi	***Vindorkuverkefni á sjó***
Danmörk	Sveitarfélög bera ábyrgð á skipulagi og umhverfismati vindorkuverkefna á landi. Ákveðnar ákvarðanir sveitarfélaga er hægt að kæra til kærunefndar. Danska umhverfisverndarstofnunin veitir undanþágur.	Danska Orkustofnunin (*e. Danish Energy Agency*) hefur umsjón og eftirlit með vindorkuverkefnum á sjó. Ákvarðanir Orkustofnunarinnar eru kæranlegar til kærunefndar orkumála (*e. Energy Appeals Board*) sem er undirnefnd Loftslags-, orku- og veituráðuneytisins (e. *Danish Ministry of Climate, Energy and Utilities*).
Noregur	Aðkoma stjórnvalda að vindorkuverkefnum á landi er mikil. Norska auðlinda- og orkumálastofnunin (e. *Norwegian Water Resources and Energy Directorate),* Olíu- og orkumálaráðuneytið (e. *Ministry of Petroleum and Energy*) og Lofslags- og umhverfisráðuneytið (e. *Ministry of Climate and Environment)* hafa öll aðkomu að vindorkuverkefnum á landi ásamt sveitarfélögum og stjórnsýslunefndum.	Á ekki við enda engin vindorkuverkefni á sjó í Noregi. Unnið er að heildstæðum breytingum um það regluverk sem gildir um vindorkuverkefni á sjó.
Skotland	Sveitarfélög fara yfir umsóknir um skipulagsleyfi vegna vindorkuverkefna á landi. Sveitarfélög setja staðbundnar skipulagsstefnur í tengslum við vindorkuverkefni á landi.	Skoska ríkisstjórnin (e. *Scottish Government*) hefur umsjón og eftirlit með umsóknum um leyfi fyrir vindorkuverkefnum á sjó.
Nýja Sjáland	Sveitastjórnir (e. *regional and district councils*) bera ábyrgð á ákvarðanatöku samkvæmt lögum um auðlindastjórnun (e. *Resource Management Act*).	Á ekki við enda engin vindorkuverkefni á sjó á Nýja Sjálandi.

	Umhverfisstofnun (*e. Environment Protection Authority*) ber ábyrgð á eftirliti. Umhverfisráðuneytið (e. *Ministry for the Environment*) fer með ráðgjafahlutverk til ríkisstjórnar um ýmis umhverfismál.	

5.13 Rétt er að benda sérstaklega á muninn á hlutverki danskra stjórnvalda við vindorkuframleiðslu á landi annars vegar og á sjó hins vegar. Sveitarfélög bera ábyrgð á leyfisveitingum á landi en stjórnvöld bera ábyrgð á leyfisveitingum fyrir verkefni á sjó. Sambærileg skipting er til staðar í Skotlandi, þar sem sveitarfélög yfirfara umsóknir um skipulagsleyfi og setja skipulagsstefnu innan síns sveitarfélags en skoska ríkið ber ábyrgð á umsóknum um vindorkuverkefni á sjó. Hlutverk og raddir sveitarstjórna er þannig meira áberandi þegar um er að ræða þróun og ákvarðanatöku á verkefnum á landi en aðkoma ríkisins meiri þegar um er að ræða verkefni ásjó. Nýlegar lagabreytingar í Danmörku veita sveitarfélögum þó neitunarvald á tilteknum vindorkuframkvæmdum á sjó í nálægð við viðkomandi sveitarfélag, líkt og frekar er fjallað um í málsgrein 6.10 hér að aftan.

5.14 Þar sem Noregur og Nýja Sjáland eru ekki með virka raforkuframleiðslu úr vindorku á sjó er samanburður á hlutverki stjórnvalda við ákvarðanatöku á vindorkuverkefnum á sjó ekki marktækur. Vindorkuframkvæmdir á hafi í Noregi falla undir lög um sjávarorku (*e. Ocean Energy Act*) en lagarammi vindorkuverkefna á sjó er í þróun og stefnir norskra ríkisstjórnin að því að úthluta svæðum fyrir 30.000 MW af raforku á hafi fyrir árið 2040. Stjórnvöld í bæði Noregi og Nýja Sjálandi hafa lýst yfir áhuga og vilja til að þróa frekar lagaramma í kringum vindorkuverkefni á sjó og má ætla að breytingar og uppfærslur á löggjöf muni eiga sér stað á komandi árum.

5.15 Auk þeirra opinberu aðila og stjórnvalda sem hingað til hafa verið nefnd eru fleiri opinberir aðilar sem koma með einum eða öðrum hætti að vindorkuverkefnum í samanburðarríkjunum. Samstarfsaðilarnir nefndu eftirfarandi aðila sem gegna mismunandi hlutverki og hafa misjafnt vægi á milli ríkja en geta, eftir atvikum, tengst þróun vindorkuverkefna í samanburðarríkjunum:

(a) Opinberir aðilar sem stjórna markaði fyrir raforku;

(b) Opinberir aðilar sem annast flutning og dreifingu raforku og hafa umsjón með raforkukerfinu;

(c) Raforkukerfisstjórar- eða raforkuverkefnastjórar;

(d) Stjórnvaldsaðilar sem bera ábyrgð á loftslagslausnum;

(e) Umhverfisverndar- og dýraverndunarstofnanir;

(f) Vegayfirvöld;

(g) Siglingayfirvöld;

(h) Opinberir aðilar sem bera ábyrgð á verndun náttúru- eða söguminja.

5.16 .Líkt og framangreind umfjöllun ber með sér er hlutverk stjórnvalda og annarra opinberra aðila fjölbreytt og misjafnt er á milli samanburðarríkjanna hvort ákvarðanataka um leyfisveitingu fer fram hjá ríkinu eða sveitarfélögum. Í samanburðarríkjunum öllum hafa þó stjórnvöld markað skýra stefnur, sbr. umfjöllun í kafla 5 að framan, og hafa þannig sett sveitastjórnum og öðrum opinberum aðilum ákveðin ramma um stefnu vindorkuverkefna og þróun þeirra. Frekari upplýsingar um leyfisferli vegna vindorkuverkefna og aðkomu stjórnvalda má finna í málsgreinum 6.1 til 6.10 hér að aftan.

Aðkoma einkaaðila að leyfisveitingu

5.17 Spurt var um aðkomu einkaaðila að leyfisveitingum vindorkuverkefnum og í öllum fjórum samanburðarríkjunum virðist slík aðkoma takmörkuð, ef frá er talin aðkoma framkvæmdaraðilanna sjálfra sem hafa aðkomu að leyfisveitingum sem umsækjendur. Í Noregi er umsækjendum frjálst að velja einkaaðila til að framkvæma formlegt mat á áhrifum og eru slíkir einkaaðilar oft ráðgjafafyrirtæki, sjá nánari umfjöllun í málsgrein 6.8. Ætla má að sambærileg aðkoma sérfræðinga og annarra ráðgjafa geti einnig átt við, eftir atvikum, í öðrum samanburðarríkjum. Í Nýja Sjálandi er gert ráð fyrir aðkomu einstaklinga og hópa sem eiga undirliggjandi hagsmuni af leyfisveitingum. Aðkoma dreifi- og flutningsaðila getur einni komið til skoðunar, sjá nánar umfjöllun í málsgrein 9.1. Einkaaðilar geta síðan haft aðkomu að verkefnum í gegnum viðeigandi kæruleiðir, eftir atvikum, eins og nánar er fjallað um í málsgrein 11.1 hér að aftan.

Skilgreind landsvæði fyrir raforkuframleiðslu úr vindorku, á landi og á sjó

5.18 Spurt var hvort stjórnvöld eða sveitarfélög í samanburðarríkjunum hefðu skilgreint sérstök svæði til raforkuframleiðslu úr vindorku, annað hvort á landi eða á sjó. BBA//Fjeldco telur líklegt að upp muni koma álitamál tengd staðsetningu vindorkuverkefna, bæði á landi og á sjó. Því er mikilvægt að öðlast skilning á ákvarðanatöku í samanburðarríkjunum sem býr að baki staðsetningu vindorkuverka og hvert hlutverk stjórnvalda og sveitarfélaga er varðandi leyfi til nýtingar eða takmörkun á nýtingu lands. Eins og áður hefur verið minnst á mun sterk pólitísk stefnumótun, auk vel skilgreinds lagaramma, gegna mikilvægu hlutverki þegar ákvarðanir um staðsetningu vindorkuvera eru teknar eða nýting ákveðinna landsvæða er samþykkt eða henni hafnað. Horfa verður á hlutverk ríkisins annars vegar og hlutverk sveitarstjórna hins vegar og hugsanlegt er að hlutverk verði ólík eftir því hvort um er að ræða vindorkuverkefni á landi eða á sjó. Sveitarfélög í Danmörku gegna mikilvægu hlutverki þegar kemur að því að skilgreina landsvæði undir framkvæmdir á og þeim hvílir sérstök lagaskylda að tilgreina svæði undir vindorkuframleiðslu á landi. Noregur, Skotland og Nýja Sjáland byggja frekar á s.k. „open door policy“, þ.e. því að þróunar- og framkvæmdaraðilar verkefna eigi frumkvæði að því að sækja um nýtingu landsvæða undir slík verkefni, m.t.t. leyfisveitinga, áhrifa á nærliggjandi svæði, kostnað o.fl. eins og nánar er fjallað um í málsgreinum 6.1 til 6.8 hér á eftir. Danmörk og Noregur hafa mótað sterka stefnu um

staðsetningu vindorkuverkefna á hafi þar sem stjórnvöld hafa skilgreint og tilnefnt sérstök svæði undir slík verkefni.

5.19 Frekari samantekt á skilgreiningu land- og hafsvæða undir vindorkuverkefni á landi og á sjó í samanburðarríkjunum má sjá í eftirfarandi töflu:

	Vindorkuverkefni á landi	***Vindorkuverkefni á sjó***
Danmörk	Sveitarfélög skulu tilefna svæði undir vindorkuframleiðslu á landi. Engar formlegar skyldur hvíla á hverju sveitarfélagi um stærð eða umfang svæðis. Til að aðstoða sveitarfélög í þessu ferli hefur danska húsnæðis- og skipulagsstofnunin (e. *Danish Housing and Planning Agency*) útbúið kort af tilteknum svæðum í Danmörku með hliðsjón af ákveðnum atriðum í tengslum við vindorkuverkefni. Verkefni utan skilgreindra svæða eru möguleg, með samþykki viðkomandi sveitarfélaga og breytingum á deiliskipulagi.	Sérstök svæði hafa verið skilgreind fyrir vindorkuver á sjó og að jafnaði er aðeins hægt að samþykkja áætlanir og veita leyfi til raforkuframleiðslu á svæðum sem tilgreind hafa verið í hafsvæðaáætlun. Danska siglingastofnunin (e. *Danish Martime Agency*) kortleggur heppilega staði undir vindorkuver að fengnu opinberu samráði. Hægt er að eiga frumkvæði að því að koma upp vindorkuveri á sjó (e. *open door policy*).
Noregur	Norska auðlinda- og orkumálastofnunin (*e. Norwegian Water Resources and Energy Directorate)* birti tillögu árið 2019 um staðsetningu vindorkuvera á landi, er síðar var afturkölluð. Engin sérstök svæði eru skilgreind fyrir vindorkuver á landi.	Tilnefningarferli hefur staðið yfir síðustu ár og árið 2018 tilnefndi norska vatnsauðlinda- og orkumálastofnunin (e. *Norwegian Water Resources and Energy Directorate*) sérstök svæði undir vinnslu og árið 2020 voru þau svæði opnuð fyrir raforkuframleiðslu á sjó. Annað svæðið, Utsira Nor, hentar vel fyrir fljótandi framleiðslu-aðstöðu en hitt svæðið, Sørlige Nordsjø II, hentar betur undir fasta framleiðsluaðstöðu.

Skotland	Ekki eru til staðar fyrirfram skilgreinds svæði fyrir vindorkuverkefni. . Mikill fjöldi af staðbundnum orku- og vindþróunarstefnum stjórnvalda, sem og deiliskipulög, geta gefið til kynna ákjósanleg svæði fyrir vindorkuframkvæmdir. Þegar stjórnvöld taka afstöðu til staðsetningar ber þeim að horfa til fyrirliggjandi orku- og vindþróunarstefna.	Bresk stjórnvöld hafa sett stefnu hafskipulag *(e. UK Marine Policy Statement*) og Skotland hefur einnig gefið út stefnu sem tekur til Skoskrar landhelgi (e. *Scotland's National Marine Plan*). Jafnframt hafa verið gefnar út leiðbeiningar í tengslum við endurnýjanlega orku á sjó (e. *sectoral marine plan for offshore wind energy*). Endanleg staðsetning vindorku-framkvæmda er á forsjá framkvæmdaraðila, með fyrirvara um nauðsynleg samþykki stjórnvalda eða krúnunnar, og framkvæma þeir aðilar sjálfstætt tæknimat á staðsetningum.
Nýja Sjáland	Ekki eru til staðar fyrirfram skilgreind svæði til virkjunar. Ákvarðanir um staðsetningar verkefna eru teknar af einkaaðilanum með hliðsjón af ýmsum þáttum, svo sem líkum á því að samþykki fáist fyrir tiltekinni staðsetningu.	Ekki eru til staðar fyrirfram skilgreind svæði til virkjunar vindorku á hafi úti, en Atvinnu-nýsköpunar- og atvinnumála-ráðuneytið (e. Ministry of Business, Innovation and Employment) hefur eftirlit með lögmæti vindorkuverkefna á sjó og gæti auðkennt sérstök svæði fyrir vindorkuverkefni.

Útboðsferli

5.20 Spurningar voru lagðar fyrir samstarfsaðilana um við útboðsferli vindorkuverkefna í samanburðarríkjunum og að hvaða marki einkaaðilum væri boðin þátttaka í slíkum verkefnum á grundvelli útboðs, bæði á landi og á sjó. Í eftirfarandi töflu má sjá samanburð á útboðsverkefnum í samanburðarríkjunum.

	Vindorkuverkefni á landi	**Vindorkuverkefni á sjó**
Danmörk	Danska Orkustofnunin (e. *Danish Energy Agency*) hefur haldið útboð fyrir vindorkuverkefni á landi, en í síðasta útboði í október 2021 bárust engin tilboð. Ekki liggja fyrir	Flest vindorkuverkefni á sjó í Danmörku byggja á útboðum þar sem danska Orkustofnun (e. *Danish Energy Agency*) auglýsir útboð í verkefni af tiltekinni stærð og á tilteknu hafsvæði. Nýlegt útboð á svokölluðu TOR verkefni þótti vel heppnað, sjá nánar

	upplýsingar um hvort frekari útboð séu fyrirhuguð.	umfjöllun í málsgrein 5.22 hér að aftan, og eru frekari útboð fyrirhuguð á næstu árum.
Noregur	Engin útboð eru haldin af norskum stjórnvöldum í tengslum við raforkuverkefni á landi. Framkvæmdaraðilar verða að eigin frumkvæði að senda inn tilkynningar um framkvæmdaráætlanir, samtímis því að senda inn mat á hugsanlegum áhrifum verkefnanna á umhverfið.	Ríkisstjórn Noregs tilkynnti í febrúar 2022 áætlanir sínar um vindorkuframleiðslu í Sørlige Nordsjø II og verður verkefnið boðið út (*e. auctioned*) í tveimur hlutum, sá fyrri verður að öllum líkindum boðinn út árið 2023. Unnið er að forvali og útboðslíkani. Svæðinu í Utsira Nord verður úthlutað út frá hæfnisskilyrðum (e. *qualitive criteria*). Í Sørlige Nordsjø er gert ráð fyrir botnfastri vindorkuvirkjun (e. *bottom-fixed windpower*). Í Utsira Nord verður hins vegar gert ráð fyrir fljótandi vindorkuvirkjun (e. *floating wind power development*). Norska ríkið metur sem svo að ekki sé ennþá möguleiki að byggja arðbærar virkjanir á grundvelli fljótandi vindmylla og því verði ríkisstuðningur nauðsynlegur. Af þeim sökum verður ekki byggt á útboði við val á framkvæmdaraðila. Frekari upplýsingar um framkvæmd útboðs og þau skilyrði sem lögð verða til grundvallar við úthlutun hafa ekki verið gerð opinber.
Skotland	Engin útboð eru haldin af skoskum stjórnvöldum í tengslum við vindorkuverkefni á landi og leyfisveitingu verkefna. Framkvæmdaraðilar geta valið staðsetningar fyrir verkefni og að fengnu samþykki landeiganda, óskað eftir samþykki viðkomandi yfirvalda. Stjórnvöld bjóða út svokallaða CfDs eða styrki til vindorkuverkefna, líkt og nánar er fjallað um í málsgrein 10.8 að aftan. Við úthlutanir CfDs	Nýlega hefur skoska ríkið (e. *Crown Estate Scotland*) rekið samkeppnisferli um úthlutun á hafsvæðum til vindorkuframleiðslu en verkefnið kallast ScotWind. Leyfi var veitt yfir 17 ólíkum svæðum og stefnt er að svipuðu ferli árið 2022 um fleiri hafsvæði. Í umræddu samkeppnisferli var undirliggjandi gæðamat og Skosk stjórnvöld gegnu til samninga við það verkefni sem fékk hæstu einkunn við

	styrkja skiptir undirliggjandi raforkuverð máli sem og fjárheimildir hins opinbera.	slíkt gæðamat. Tilboðsgögn voru gerð opinber, sjá hér: scotwind-leasing-offer-document-april-2021-1 (crownestatescotland.com) og hér má sjá frekari upplýsingar um undirliggjandi aðferðarfræði : scotwind-leasing-guidance-notes-april-2021 (crownestatescotland.com)
Nýja Sjáland	Stjórnvöld auglýsa ekki útboð í tengslum við vindorkuverkefni á landi.	Útboðsferli vegna vindorkuverkefna á sjó hefur ekki verið nýtt til þessa en það gæti breyst með hugsanlegri innleiðingu á nýju regluverki sem mun taka til vindorkuverkefna á sjó.

5.21 Af framangreindu má ráða að hlutverk útboða í verkefnum sem tengjast vindorkuframleiðslu á sjó er viðamikið hjá samanburðarríkjunum og mun algengara að útboð tengist verkefnum á sjó heldur en verkefnum á landi. Fyrir raforkuverkefni á landi er að meginstefnu treyst á frumkvæði einkaaðila, þ.e. frumkvæði þróunar- og framkvæmdaraðila, og er það í þeirra höndum að finna heppilegt landsvæði undir verkefni, að teknu tillit til fjölmargra og mismunandi atriða, sem dæmi hversu hentugt svæðið er undir vindorkuþróun út frá veðurfari og hversu líklegt er að samþykki fáist með hliðsjón af nálægðri byggð eða dýralífi..

5.22 Útboðsferli verkefna í samanburðarlöndum er að jafnaði á þann veg að stjórnvöld skilgreina landfræðilegt svæði og nánar tilgreinda framleiðslu á raforku og áhugasömum aðilum er veittur aðgangur að frekar tilgreindum gögnum, t.d. frumrannsóknum sem framkvæmdar hafa verið af sérfræðingum, landfræðilegum eiginleikum og hvernig standa eigi að tengingu verkefnis við dreifi- og flutningskerfi raforku. Áhugasamir framkvæmdaraðilar lýsa yfir áhuga og að fenginni frumathugun er ákveðnum aðilum beðið að bjóða í verkefnið. Stjórnvöld geta skilgreint umrædda frumathugun í hverju verkefni en að jafnaði er horf til ákveðinna grunnskilyrða, svo sem skráningu félags í viðkomandi landi, hvernig verkefnaþróun og framkvæmd verði fjármögnuð og upplýsingar um tæknilega hæfni og getu viðkomandi aðila til að standa undir verkefninu. Í eftirfarandi töflu má finna stutta samantekt á nýlegum útboðum vegna vindorkuverkefna á sjó í Danmörku, Noregi og Skotlandi:

	Vindorkuverkefni á sjó
Danmörk	Danska orkumálastofnunin (Danish Energy Agency) auglýsir staðbundin útboð á hafi þar sem gert er ráð fyrir nánar tilgreindri framleiðslu af raforku. Vindorkuveri þarf að vera komið fyrir innan landfræðilegs svæðis sem er skilgreint í útboðinu. Mismunandi er á milli verkefna hversu hátt vinningsverð raforku er í hverju útboði. Þar geta ýmsar undirliggjandi aðstæður haft áhrif, t.d. staðsetning, vindskilyrði og samkeppnisstaða á markaði á hverju tíma.

	Í Danmörku hafa verkefni verið valin bæði á grundvelli samningaviðræða og eftir forval. Stjórnvöld hafa talið slíkt ferli vænlegt til árangurs, enda hafa þátttakendur í útboðum þar með möguleika á að hafa áhrif á útboðsskilyrði, tryggja ákjósanleg áhættuskipti og ná samkeppnishæfum tilboðsverðum. Forrannsókn á völdum stöðum fer fram á kostnað hins opinbera áður en tilboðsfrestur rennur út til að lágmarka áhættu fyrir framkvæmdaraðila. Árið 2020 auglýsti Danska orkumálastofnunin útboð á verkefni sem kallast TOR og er vindorkuver á hafi. Hægt var að bjóða í framleiðslu á milli 800 til 1000 MW af raforku. TOR á að vera að fullu komið í gagnið árið 2027 og er heimildin veitt til 30 ára með möguleika á 5 ára framlengingu. Frekari útboðsgögn eru aðgengileg á heimasíðu verkefnisins, sjá betur hér. Útboðið gekk vel og er það fyrsta í Danmörku sem lýkur að fullu án styrkja frá ríkinu. Nokkrir aðilar buðu í verkið með mesta mögulega afkastagetu (1000 MW) og á lágmarksverði sem er 0.01 aur/kwst (0.01 øre/kWh). Á grundvelli útboðsskilmála, sem kváðu á um að verð yrði haft að leiðarljósi við val á tilboðum, var útboðið því ákveðið með hlutkasti. Þegar rafmagnsframleiðsla hefst er áætlað að framkvæmdaraðilinn sem hlaut verkefnið muni greiða 2,8 milljarða danskra króna til ríkisins á árunum 2025 – 2028, miðað við væntanleg raforkuverð. Eftir þann tíma verða engin fjárhagsleg viðskipti á milli ríkisins og framkvæmdaraðila og verður vindorkuverið rekið á hreinum viðskiptakjörum, án alls stuðnings, það sem eftir er af væntanlegum 30 ára líftíma. Frekari upplýsingar um útboð vindorkuverkefna á sjó má finna á heimasíðu dönsku orkumálastofnunar en stefnt er á frekari útboð á komandi árum, til samræmis við fyrirætlanir stjórnvalda um aukna raforkuframleiðslu á hafi.
Noregur	Norsk stjórnvöld hafa birt metnaðarfullar áætlanir um vindorkuframleiðslu á sjó í Noregi og stefna á framleiðslu á 30.000 MW, sem er mun meira en flutnings- og dreifikerfi Noregs ræður við. Hugsanlegt er að hluti þeirrar raforku verði seldur úr landi. Í febrúar 2022 var tilkynnt um vindorkuframleiðslu í Sørlige Nordsjø II sem er fyrsta útboðsverkefni Noregs á sjó. Ríkisstjórn Noregs hyggst þróa útboðslíkan sem leið til að úthluta hafsvæðum til endurnýjanlegrar vindorkuframleiðslu. Olíu- og orkumálaráðuneytið vinnur nú að hönnun uppboðslíkans fyrir fyrsta áfanga Sørlige Nordsjø II og jafnframt er unnið að rannsóknum á hafsbotni. Ljóst er að áhugi er á verkefninu og aðilar hafa lýst yfir áhuga á þátttöku og þróun. Ekki hefur verið opnað fyrir útboð í verkið en ætlað er að fyrstu áfangar verkefnisins verði boðnir út á fyrsta ársfjórðungi ársins 2023 og að niðurstöður verði gerðar opinberar næsta sumar. Útboðið verður það fyrsta sinnar tegundar í Noregi en útboðsskilmálar eða frekari upplýsingar um framkvæmd útboðsins hafa ekki verið gerðar aðgengilegar almenningi.

Skotland	Árið 2021 lagði Skotland af stað með sitt fyrsta útboðsferli á vindorkuverkefnum í áratug í verkefni sem fékk heitir ScotWind. Alls bárust 74 tilboð í þau 15 svæði sem boðin voru út og var 17 aðilum úthlutað svæði til frekari þróunar og raforkuvinnslu. Opnað var fyrir útboð í janúar 2021, útboðsfrestur rann út í júlí 2021. Árið 2022 fóru fram samningaviðræður og voru samningar tilkynntir í ágúst 2022. Samkvæmt útboðseyðublaði var óskað eftir eftirfarandi upplýsingum frá öllum áhugasömum aðilum á frumstigi útboðsins: i. Grunnupplýsingar ii. Verkhugmynd og þéttleiki (e. Density) iii. Verkefnisáætlun iv. Hæfni og reynsla umsækjanda v. Þróunaráætlun vi. Aðgengi að fjármagni vii. Skuldbinding við verkefnið Eyðublað var gert aðgengilegt í gegnum tiltekið vefsvæði og þurftu umsóknaraðilar að greiða GBP 20.000 í umsóknargjald. Gefnar voru út frekari leiðbeiningar um umsóknarferlið, svo sem hvernig ætti að fylla út umsóknareyðublaðið, hvaða kröfur væru gerðar til umsóknaraðila sem og ýmsar upplýsingar um þau svæði sem skilgreind höfðu verið að skoskum stjórnvöldum. Verkefnunum 17 sem boðið var til samningaviðræðna í kjölfar útboðs munu greiða gjald til hins opinbera sem eingreiðslu í skiptum fyrir réttindi. Valið var að setja hámarksverðþak sem nemur 100.000 £/km². Með þessu vilja skosk stjórnvöld koma í veg fyrir að hærra verð til neytenda þar sem stjórnvöld telja að hærri gjöldum verði velt yfir á raforkuneytendur. Hámarksverðþakið á því að tryggja sem lægstan kostnað fyrir neytendur og skattgreiðendur.

6. LEYFI OG LEYFISVEITINGARFERLI

Leyfi fyrir vindorkuverkefni á landi og á sjó

6.1 Skýrt og gagnsætt leyfisveitingarferli er mikilvægt undirstöðuatriði í allri raforkuframleiðslu, jafnt úr vindorku sem öðrum endurnýjanlegum auðlindum. Talsverður munur er á milli samanburðarríkjanna um hvaða leyfi eru nauðsynleg í tengslum við uppbyggingu verkefna og framleiðslu vindorku og eins hvaða stjórnvöld það eru sem veita slík leyfi. Fjölbreyttar leiðir eru færar til að stuðla að góðri stjórnsýslu og sterkri ákvarðanatöku í tengslum við leyfisveitingar til vindorkuverkefna. Sem fyrr er fyrirsjáanleiki og skýr laga- og reglugerðargrunnur forsenda árangurs og sjá má að þar sem ekki er til staðar sterkur grunnur utan um leyfisveitingar í samanburðarríkjunum er nú unnið að breytingum eða uppfærslum á núgildandi reglum til að styðja frekar við þróun og uppbyggingu slíkra verkefna.

6.2 Til að varpa frekara ljósi á leyfisveitingar og ferli þeirra í samanburðarríkjunum má hér að neðan sjá töflu með samanburði á helstu leyfum sem sækja þarf um í tengslum við vindorkuverkefni í ríkjunum, annars vegar á landi og hins vegar á sjó.

	Vindorkuverkefni á landi	**Vindorkuverkefni á sjó**
Danmörk	Dreifbýlisleyfi (ef verkefnið er fyrir utan deiliskipulag). Mat á umhverfisáhrifum. Leyfi til að byggja vindmyllu og leyfi til framleiðslu raforku. Sérstakar leyfisveitingar geta komið upp á landsvæðum sem háð eru tilteknum verndarkröfum.	Leyfi til að framkvæma frumrannsóknir. Leyfi til að koma upp vindmyllum á hafi. Leyfi til að nýta vindorku.
Noregur	Leyfi til að byggja, eiga eða reka búnað til raforkuframleiðslu. Leyfi skv. Lögum um eignarnám sem getur verið leyfi til eignarnáms (e. *Permit to expropriate land*) eða leyfi til að taka landsvæði yfirráðum (e. *Permit to advance possession*) .	Leyfi til að byggja, eiga og reka búnað til raforkuframleiðslu skv. Lögum um orkuframleiðslu á sjó (e. *Ocean Energy Act*). Leyfi til að byggja, eiga og reka dreifikerfi raforku. Heimild til að setja samtengil (e. Interconnector) nálægt veg, skv. Vegalögum. Leyfi til vinnu og uppsetningar skv. Hafnar- og vatnalögum. Leyfi til að leggja samtengil (e. Interconnector).

		Leyfi til útflutnings og innflutnings raforku til erlends ríkis.
Skotland	Allt að 50 MW framleiðsla: Framleiðsluleyfi er sent til sveitarstjórnar til yfirferðar og ákvörðunar. Allt umfram 50 MW af raforku: Framleiðsluleyfi er sent til ráðuneytis til yfirferðar og ákvörðunar. Skipulagsheimildir. 36. gr. Samþykki (e. Section 36 consent) samkvæmt 36. Grein skosku raforkulaganna (e. Scottish Government Electricity Act). Leyfi til raforkuframleiðslu	Forleyfi umsóknar: i. Skipulagsleyfi eða sjóleyfi ii. Leyfi til að framkvæma umhverfis- eða tæknimat 36. gr. Samþykki (e. Section 36 consent) samkvæmt 36. Grein skosku raforkulaganna (e. Scottish Government Electricity Act). Eftir samþykkt umsóknar: i. Skipulagsleyfi ii. Sjávarleyfi iii. Aðrar heimildir (eftir því sem við á) Leyfi til raforkuframleiðslu
Nýja Sjáland	Ekki er til staðar sérstakt leyfiskerfi í tengslum við stofnun og rekstur vindorkuverka. Framkvæmdaraðilar þurfa að skrá sig sem atvinnuþátttakendur (e. Industry participants) hjá Raforkustofnun Nýja Sjálands (e. Electricity Authority), en slík skráning er ekki háð samþykki. Vindorkuver á landi þurfa auðlindasamþykki samkvæmt lögum um auðlindastjórnun (e. *Resource consent under the Resource Management Act*). Leyfi sem kann að vera gerð krafa um: i. Byggingarleyfi samkvæmt byggingarlögum til að heimila mannvirkjagerð; ii. Leyfi til að breyta eða eyða menningararfleið lands (e. *Heritage features*);	Ekki er til staðar sérstakt leyfiskerfi fyrir vindorkuvinnslu á sjó. Sjóleyfi samkvæmt lögum um landgrunn er nauðsynlegt.

	iii.	Leyfi til að veita þjónustu (svo sem raforkuflutning) á eignarlandi.	

6.3 Eins og sjá má í framangreindri töflu er oft um nokkur ólík leyfi að ræða á milli samanburðarríkja og það er misjafnt eftir hverju leyfi og hverju samanburðarríki fyrir sig hvaða gögn þurfa að vera undirliggjandi á hvaða tíma. Að sama skapi skiptir stærð verkefnis og umfang máli, hvort verkefni falli að núgildandi deiluskipulagi eða hvort þörf sé á breytingum sem og nálægt við íbúðarbyggð eða önnur mannvirki. Það er því erfitt að veita nákvæma samantekt á öllum þeim atriðum sem framkvæmdaraðilar þurfa að standa skil á meðan leyfisveitingu stendur í samanburðarríkjunum. Þó má gera ráð fyrir því að ákveðnir samnefnarar í leyfisferlinu séu m.a.:

(a) Upplýsingar um framkvæmdaraðilann sjálfan, stofnun fyrirtækis og opinbera skráningu;

(b) Upplýsingar um undirliggjandi landsvæði, samninga við landeigendur, mat á landsvæðinu og hvers vegna það henti vel til vindorkuframleiðslu;

(c) Upplýsingar um það hvort og þá hvernig uppsetning vindorkuvers samrýmist gildandi deiluskipulagi eða upplýsingar um hvort breytinga sé þörf á deiliskipulagi;

(d) Fjölmörg atriði er snúa að umhverfismálum, áhrifum verkefnis á umhverfi og leiðir til að takmarka hugsanleg umhverfisáhrif af verkefni;

(e) Upplýsingar um fjármögnunarleiðir framkvæmdaraðila og hvernig framkvæmdaraðili mun fjármagna verkefni, allt frá þróun til framkvæmda;

(f) Hæfni, reynsla og tæknileg skilyrði framkvæmdaraðila til að þróa og reka vindorkuver, stutt með gögnum og vísan til fyrri verkefna.

6.4 Það er áhugavert að benda á að framkvæmd við útgáfu leyfa vegna vindorkuverkefna í Frakklandi var einfölduð árið 2017. Áður var nauðsynlegt að sækja um nokkur ólík leyfi og heimildir, m.a. með hliðsjón af umhverfislögum (e. *Environmental Code*), orkulögum (e. *Energy Code*) og skógræktarlögum (e. *Forestry Code*). Í kjölfar breytingarinnar voru leyfin sameinuð og í dag er aðeins sótt um eina umhverfisheimild (e. *Single Environmental Authorisation*) sem sameinar í einni leyfisumsókn sambærileg réttindi og áður þurfti að sækja á fleiri staði.

6.5 Það er breytilegt á milli samanburðarríkja hver gildistími útgefinna leyfa til reksturs vindorkuvera er, en almennt eru leyfin veitt til lengri tíma. Í Danmörku eru leyfi fyrir vindorkuver á landi að jafnaði gefin út til 25 til 30 ára, en nákvæm tímalengd fer eftir undirliggjandi aðstæðum og heildstæðu mati hverju sinni. Í Skotlandi er tímalengd leyfa vegna vindorkuvera á landi að jafnaði á milli 30 til 40 ár. Í Nýja Sjálandi takmarkast rekstur vindorkuverks á landi að jafnaði við 35 ár, sökum gildandi takmarkana um lengd lóðaleigusamninga sem og lengd vatnsleyfis (e. *Water permit*) og losunarleyfis (e. *Discharge permit*). Sjóleyfi (e. *Marine consent*), sem undanfari raforkuvinnslu á sjó, getur lengst gilt í 35 ár. Sjóleyfi innihalda fyrningardagsetningar og verkefni verða að hefjast og ná framgangi

innan ákveðins tímaramma, annars fellur leyfið úr gildi. Þá ber einnig að skoða gildistíma leyfisveitinga út frá því hvort sótt er um leyfi með umsókn eða hvort útgáfa byggir á opinberu útboði, þar sem leyfi til reksturs vindorkuvers hefur skilgreindan gildistíma.

6.6 Ekki eru fyrir hendi upplýsingar um tímalengd leyfisveitingaferlis í hverju samanburðarríki, þ.e. þann tíma sem það tekur frá því að umsókn er lögð inn og þar til leyfi er gefið út enda geta fjölmargar ástæður og undirliggjandi aðstæður haft mikil áhrif á tímalengd leyfisveitingar. Rétt er að hafa í huga að ferli leyfisveitinga er, sem fyrr segir, talsvert frábrugðið á milli landa. Til að koma í veg fyrir að ferli leyfisveitinga dragist úr hófi er rétt að horfa til nýlegrar þróunar í Frakklandi þar sem unnið hefur verið að því að einfalda leyfisveitingaferli. Samvinna hlutaðeigandi aðila þarf líka að vera höfð að leiðarljósi, til að mynda samstarf sveitarfélaga, skipulagsaðila og umhverfisaðila, þannig að ekki verði óþarfa tafir á leyfisveitingu og að leyfisveitingarferlið dragist ekki. Frekari upplýsingar um leyfisveitingar fyrir vindorkuverkefni á landi

6.7 Í Danmörku þurfa vindorkuverkefni á landi að falla að deiliskipulagi þar sem horft er til þess hvort framkvæmd leiði til verulegra breytinga miðað við skilgreindan tilgang og nýtingu svæðis. Einungis er hægt að heimila uppbyggingu á vindorkuverum ef svæðið hefur verið tilgreint undir slíka starfsemi í aðalskipulagi og deiliskipulag þarf enn fremur að uppfylla ákveðnar skipulagskröfur á grundvelli tilskipunar um skipulag vindmylla (e. *Executive Oder on Wind Turbine Planning*). Einnig getur verið gerð krafa um byggingarleyfi frá sveitarfélagi. Mat á umhverfisáhrifum setur framkvæmdum ákveðin skilyrði og tekið er á hugsanlegum skaðlegum áhrifum á umhverfið.

6.8 Í Noregi er hægt er að skipta leyfisferli fyrir vindorkuver niður í eftirfarandi skref, en Vatnsauðlinda- og orkumálastofnun Noregs (e. *The Norwegian Water Resources and Energy Directorate*) er það stjórnvald sem hefur hvað mesta aðkomu að leyfisveitingunni:

(a) **Tilkynning**: Framkvæmdaraðilum ber að tilkynna stjórnvöldum um áform um byggingu vindorkuverks á frumstigi. Slíkri tilkynningu er ætlað það hlutverk að upplýsa hlutaðeigandi aðila um verkefnið og fyrirætlanir framkvæmdaraðila. Í tilkynningunni skulu koma fram upplýsingar um fyrirhugaðar vindorkuframkvæmdir og hvernig þær muni áhrif á nærliggjandi svæði. Ef byggja á vindorkuver með meira en 10 MW af uppsettu afli þarf að framkvæma formlegt mat á áhrifum (e. *Impact assessment*). Megintilgangur tilkynningar er að leggja grunn að formlegu mati á áhrifum sem tiltekur hvaða atriði þarf að rannsaka frekar. Vatnsauðlinda- og orkumálastofnun Noregs sendir tilkynningu um áformin til samráðs og gefst almenningi og öðrum hlutaðeigandi færi á að koma athugasemdum sínum á framfæri innan 6 vikna. Einnig ber Vatnsauðlinda- og orkumálastofnuninni að boða til almenns fundar til að ræða efni umsóknar og umfang.

(b) **Rannsókn**: Um rannsóknaráfanga gilda reglur skipulags- og byggingarlaga um mat á áhrifum verkefna. Framkvæmdaraðili ber ábyrgð á gerð matsáætlunar (e. *Assessment* programme) en er frjálst að velja einkaaðila til að framkvæma formlegt mat á áhrifum.Flestir umsækjendur velja að nota eitt eða fleiri ráðgjafafyrirtæki til að kanna áhrif á umhverfi, áhrif á landeigendur og aðra sem geta átt undirliggjandi hagsmuni.

Hægt er að sækja um leyfi vegna vindorkuverkefna sem eru undir 10 MW án þess að framkvæma jafn ítarlegt mat á áhrifum.

(c) **Umsóknaráfangi:** Umsóknarafangi verkefnis hefst um leið og vatnsauðlinda- og orkumálastofnun Noregs hefur borist leyfisumsókn ásamt mati á áhrifum. Um þennan áfanga verkefnis gilda orkulög (e. *Energy Act*). Í umsókn skulu koma fram nauðsynlegar upplýsingar til að meta hvort leyfi skuli veitt og hvort, og þá hvaða, skilyrði eigi að setja verkefninu. Í orkureglugerð (e. *Energy regulation*) eru tilgreindar þær upplýsingar sem umsókn skal að lágmarki innihalda, þar á meðal tæknilegar og efnahagslegar upplýsingar, áætlaður tími fyrir upphaf verks og verklok og hvernig verkefnið fellur inn í orkuáætlanir viðkomandi sveitarfélags. Vatnsauðlinda- og orkumálastofnun Noregs metur leyfisumsóknina og mat á áhrifum áður en hún er send áfram til almennrar meðferðar. Vatnsauðlinda- og orkumálastofnun Noregs óskar eftir áliti almennings á leyfisveitingu, ákveður hvaða skilyrði skuli setja fyrir framkvæmd verkefnisins og hvort afleiðingar verkefnis hafi verið kannaðar með fullnægjandi hætti. Þegar stofnunin telur að umsækjandi hafi veitt fullnægjandi upplýsingar er ákvörðun um útgáfu leyfis tekin.

(d) **Nákvæmt skipulag**: Leyfi tilgreinir oft ákveðin skilyrði, t.d. um ytri mörk framkvæmdarsvæðis eða setur heildarraforkuframleiðslu takmörk. Beiðni framkvæmdaraðila umbreytingar á skilyrðum leyfis ber að senda til vatnsauðlinda- og orkumálastofnun Noregs. Endanleg hönnun mannvirkja, þar á meðal hæð, gerð og fjöldi vindmylla, skal að jafnaði vera í samræmi við leyfisskilmála. Leyfihafa ber einnig að gera áætlanir um umhverfi, samgöngur og mannvirki þar sem því skal lýst hvernig umhverfishagsmunum er gætt við byggingu vindorkuvers. Áætlanir skulu lagðar fyrir vatnsauðlinda- og orkumálastofnun Noregs til staðfestingar. Í framhaldinu skulu áætlanir framkvæmdaraðila jafnframt lagðar undir sveitarfélög, undirnefndir sveitarfélaga og önnur yfirvöld, félagasamtök og einkaaðila sem málið varða, til staðfestingar.

(e) **Þróunarfasi**: Uppbygging getur hafist þegar vatnsauðlinda- og orkumálastofnun Noregs hefur samþykkt áætlanir. Leyfishafi þarf enn fremur að afla annarra nauðsynlegra leyfa til að hefja framkvæmdir, líkt og frekar er fjallað um í málsgrein 6.2. Stofnunin framkvæmir úttektir og skoðanir á þróunarstigi verkefnis.

(f) **Rekstraráfangi:** Leyfishafi ber ábyrgð á því að reka vindorkuver í samræmi við skilyrði undirliggjandi leyfis. Ef leyfishafi gerist brotlegur við skilyrði leyfis mun vatnsauðlinda- og orkumálastofnun Noregs fylgja því eftir með viðurlögum.

(g) **Niðurlagsáfangi:** Sérhvert útgefið leyfi inniheldur kröfu um að leyfishafi snúi svæðinu aftur í sitt fyrra horf við lok leyfistímabils. Leyfishafi skal á tólfta starfsári ábyrgjast kostnað vegna niðurrifs og niðurlagningu mannvirkja og leggja fram áætlun um hvernig staðið verði að viðsnúningi svæðis aftur í sitt fyrra horf.

6.9 Í Skotlandi er leyfisveitingum fyrir vindorkuverkefni á landi ólíkt farið eftir stærð verkefna og áætlaðri raforkuframleiðslu. Leyfisumsóknir varðandi minni verkefni eru send til sveitarstjórnar til yfirferðar og ákvarðanatöku en leyfisumsóknir varðandi stærri verkefni, umfram 50 MW, eru send til ráðuneytis til yfirferðar og ákvarðanatöku. Ráðherra gefur út

það sem kallast 36. Gr. Samþykki (e. *Section 36 consent, cf. Section 36 of the Scottish Government Electricity Act*) og ber við slíka ákvarðanatöku að taka mið af ýmsum atriðum, svo sem áhrifum á umhverfi, dýralíf, fuglalíf o.fl.

Frekari upplýsingar um leyfisveitingar fyrir vindorkuverkefni á sjó

6.10 Upphaf vindorkuverkefna á sjó í Danmörku getur bæði verið í gegnum útboðsferli eða í gegnum opið ferli (e. *Open-door procedure*). Framkvæmdaraðila ber að sækja um sömu þrjú leyfin sem veitt eru af dönsku Orkustofnuninni (e. *Danish Energy Agency*) sem er eini tengiliður framkvæmdaraðila vegna vindorkuverkefnis á sjó (e. *One-stop-shop*). Danmörk hefur með því reynt að einfalda ferlið fyrir framkvæmdaraðila og öll samskipti framkvæmdaraðila í tengslum við útgáfu leyfis og leyfismeðferð eru við Orkustofnunina. Orkustofnunin heldur síðan að eigin fumkvæði opinn fund með öðrum hlutaðeigandi stjórnvöldum þar sem kallað er eftir upplýsingum og áliti annarra stjórnvalda á því hvort einhverjir almannahagsmunir komi í veg fyrir framkvæmd og uppbyggingu verkefnis áður en Orkustofnunin byrjar að afgreiða umsóknina efnislega.

6.11 Breyting á lögum um endurnýjanlega orku (e. *Renewable Energy Act*) tók gildi í Danmörku þann 1. Júlí 2022 þar sem sveitarfélög með strandlengju í allt að 15 km fjarlægð frá umsóknarsvæði vegna vindorkuframkvæmda á sjó geta beitt neitunarvaldi gegn veitingu leyfis til að framkvæma frumrannsóknir á tilteknu svæði. Leyfisveitingar fyrir vindorkuverkefni á sjó eru sem fyrr segir á ábyrgð Orkustofnunarinnar en með þessu eru nærliggjandi sveitarfélögum veitt neitunarvald á framkvæmdum sem sveitarfélögin telja að haft gætu bein eða óbein neikvæð áhrif á íbúa viðkomandi sveitarfélags.

6.12 Í Noregi hefur leyfisferli í tengslum við vindorkuverkefni á sjó ekki verið útfært í smáatriðum en unnið er að uppfærslu á leiðbeiningum um ferlið, sem hafa ekki verið samþykktar. Sem stendur er ferlið á þá leið að nánar tilgreind svæði eru auglýst af stjórnvöldum og haldin eru forvalsferli þar sem umsækjendur þurfa að uppfylla ákveðnar kröfur til að mega taka þátt í samkeppni um svæði. Olíu- og orkumálaráðherra (e. *Ministry of Petroleum and Energy*) ákveður hverjir komast í gegnum forvalið. Þeir framkvæmdaraðilar sem hljóta svæði til vinnslu þurfa að skila inn rannsóknaráætlun innan 6 vikna frá úthlutun og nauðsynlegt er að sækja um leyfi innan tveggja ára frá rannsóknaráætlun. Ef leyfi fæst útgefið frá olíu- og orkumálaráðherra ber leyfishafa að skila ítarlegri áætlun innan tveggja ára frá útgáfu leyfis þar sem farið er yfir framhald verkefnisins og útfærslur raforkuframleiðslu kynntar.

Forgangsréttindi leyfishafa

6.13 Samstarfsaðilarnir voru spurðir um það hvort framkvæmdaraðilum í samanburðarríkjunum væri tryggður réttur (eða forgangsréttur) til útgáfu framleiðsluleyfis ef leyfi til hagkvæmnisrannsóknar leiddi til fýsileika verkefnis. Almennt séð gilda engar sérstakar reglur um slíkan rétt eða forgangsrétt leyfishafa. Samstarfsaðili í Skotlandi benti sérstaklega á að mikil vinna ætti sér stað við undirbúning verkefna, t.d. varðandi mat á umhverfisáhrifum og mat á hagkvæmni, og á grundvelli slíkrar vinnu fengist leyfi til nýtingar vindorku. Ekki væri því um eiginlega færslu á milli leyfisflokka að ræða. Ætla má að sambærileg sjónarmið eigi einnig við í öðrum samanburðarríkjunum, þ.e. að leyfismeðferðin miði að því að leyfi sé veitt

á grundvelli fyrirliggjandi gagna, mats á staðsetningu, framleiðslugetu o.fl Í Nýja Sjálandi eru sjóleyfi veitt í ákveðinn tíma og leyfishafi getur óskað eftir endurnýjun við lok leyfistíma.

Kvaðir á leyfishöfum

6.14 Leitast var eftir upplýsingum um hvaða kvaðir hvíla á leyfishöfum á gildistíma leyfis og hvaða skilyrði leyfin setja út gildistímann. Samkvæmt öllum samstarfsaðilunum innihalda leyfi í samanburðarríkjunum skilmála og skilyrði, þar á meðal fjárhagsleg- og tæknileg skilyrði sem leyfishafi þarf að uppfylla út gildistíma leyfis. Ef ekki er farið að skilmálum er hægt að afturkalla leyfi. Í Noregi eru skýrar reglur um uppbyggingu og rekstur vindorkuvers og hvenær það skal vera farið að framleiða raforku. Ekki er lengur tekið við umsóknum um seinkun eða frest á slíkum tímamörkum. Í stað fellur leyfi niður ef vindorkuverið er ekki farið að framleiða raforku á fyrirfram ákveðnum tíma, að jafnaði tveimur árum frá útgáfu. Að jafnaði eru einnig sett frekari skilyrði í leyfi, t.d. skilyrði um aðgang að vegum, tengimöguleika við flutningskerfi raforku, útlit og ytra byrði vindmylla og vindmælingar. Leyfishafi verður að fylgja öllum skilyrðum út gildistíma leyfis og gæta þess að senda viðeigandi gögn á réttum tíma til leyfisveitanda.

6.15 Þær kvaðir sem samstarfaðilar nefndu eru almennt sambærilegar og í samræmi við þær kvaðir sem nú þegar má finna í lagaramma íslenskra laga er snúa að jarðvarmaverkefnum og þeim leyfum sem gefin eru út af Orkustofnun.

6.16 Samkvæmt skoskri löggjöf eru leyfi persónuleg og ekki er heimilt að framselja þau án skriflegs samþykkis viðkomandi stjórnvalds. Að sama skapi er lögbrot að stunda leyfisskylda starfsemi án þess að vera með leyfi. Leyfi eru almennt veitt með ákveðnum skilyrðum sem leyfishafa ber að standa við, svo sem skilyrðum um öryggi, iðnaðarreglur o.fl. Svipaðar reglur má finna í löggjöf Nýja Sjálands en samkvæmt ákvæðum laga eru leyfi að jafnaði persónuleg, þ.e. tengd tilteknum framkvæmdaraðila, en fylgja ekki undirliggjandi lóðarréttindum til hagsbóta landeiganda.

Endurskoðun og niðurfelling leyfa

6.17 Í hverju samanburðarríki hafa stjórnvöld heimild til að afturkalla eða fella niður leyfi á gildistíma ef leyfishafi uppfyllir ekki skyldur sínar. Í Danmörku er hægt að fella leyfi úr gildi ef rangar eða villandi upplýsingar voru veitar, ef gjaldþrotabeiðni eða beiðni um fjárhagslega endurskipulagningu er lögð fram á hendur leyfishafa eða ef leyfishafi gerist sekur um gróf og endurtekin brot á skilmálum leyfisins. Í Noregi geta stjórnvöld endurskoðað eða fellt niður leyfi en ákveðnar stjórnsýslureglur gilda um slíka endurskoðun og niðurfellingu og viðmunarmörk fyrir endurskoðun eru talin há. Leyfisgjafa bera að leggja mat á alvarleika brots, hversu mikilvægt er að tiltekið skilyrði sé uppfyllt, skaðleg áhrif þess að skilyrði sé ekki uppfyllt og afleiðingar leyfissviptingar fyrir leyfishafa. Ráðherrar í Skotlandi hafa heimild til að breyta, svipta eða afturkalla leyfi til framleiðslu vindorku á sjó ef þeir telja að brotið hafi verið gegn ákvæðum leyfis, ef umsækjandi gaf rangar eða villandi upplýsingar eða ef nýjar upplýsingar hafa áhrif á leyfisákvörðun.

Aðrar upplýsingar

6.18 Samstarfsaðilunum var gefinn kostur á að koma á framfæri viðbótarupplýsingum sem talið var að væru gagnlegar íslenskum stjórnvöldum til að skilja leyfisskipulag hvers samanburðarríkis. Samstarfsaðili í Nýja Sjálandi bætti við frekari upplýsingum um framkvæmd og útgáfu leyfa í Nýja Sjálandi.

(a) Stjórnvöld í Nýja Sjálandi vinna nú að nýrri löggjöf sem mun tiltaka ákveðin umhverfismörk eða þolmörk verkefna (e.*bottom line*) og ætlunin er að verkefni verði að rúmast innan þeirra marka sem hin nýja löggjöf setur. Verður m.a. horf til staðsetninga vindorkuverkefna út frá öðrum undirliggjandi hagsmunum.

(b) Í samræmi við gildandi flugumferðalöggjöf þurfa vindorkuver og möstur að vera staðsett þannig að þau valdi ekki hættu fyrir lofför. Ef fyrirhugað vindorkuverkefni uppfyllir ákveðin skilyrði, t.d. ef vindmyllur ná hærra en 60 metra frá jörðu, ef vindmyllur eru staðsettar á svæði þar sem lágflug er stundað eða ef vindmyllur eru í nálægð við flugvelli, er nauðsynlegt að óska eftir ákvörðun flugmálastjóra um að engin hætta skapist í lofti.

(c) Sérstakar reglur gilda um friðlönd og sérstök leyfismeðferð er nauðsynleg hafi framkvæmdaraðili áhuga að sækja um leyfi til framkvæmda á friðlandi. Ráðherra ber að tilkynna opinberlega öll áform um að veita leyfi á friðlandi og gefa almenningi kost á að tjá sig um slíkar fyrirætlanir.

(d) Að sama skapi gilda sérstakar takmarkanir um fyrirhugaðar framkvæmdir á landi þar sem finna má fornleifar. Óheimilt er að breyta eða eyðileggja svæði sem skilgreint er sem fornleifasvæði.

(e) Samkvæmt lögum um dýralíf er almennt gerð krafa um mat á áhrifum vindorkuvers á dýrategundir sem eru í útrýmingarhættu. Sambærilegt mat getur einnig þurft að fara fram ef vindorkuver er talið hafa áhrif á mikinn fjölda dýra og tegunda sem ekki eru í útrýmingarhættu. Framkvæmdaraðilar eru skuldbundnir til að forðast, ráða bót á og draga úr áhrifum á dýralíf, eins og frekast er unnt. Slík skylda getur falið í sér að tryggja þurfi göngu flökkufiska (e. *Ensuring passage for migratory fish species*).

(f) Lög um sjávarspendýr krefjast þess að atvinnustarfsemi feli í sér sem minnst áreiti eða annan skaða fyrri sjávarspendýr og getur þurft að meta fýsileika vindorkuverkefna á sjó með hliðsjón af mögulegum áhrifum á sjávarspendýr.

7. UMHVERFISMÁL

Mat á umhverfisáhrifum og áhrif á þróun framkvæmda

7.1 Mat á umhverfisáhrifum er mikilvægur partur af vindorkuverkefnum og leitast var eftir því að fá upplýsingar frá samstarfsaðilunum um hvernig mat á umhverfisáhrifum hefur áhrif á þróun vindorkuverkefna á landi og á sjó. Tilskipun Evrópuþingsins og ráðsins 2001/42/EB um mat á áhrifum tiltekins skipulags og áætlana á umhverfið hefur verið lögfest í Danmörku og Skotlandi. Tilskipunin hefur auk þess verið tekin upp í EES samninginn og hefur lagagildi í Noregi. Kröfur þessar ríkja eru að miklu byggðar á sambærilegum grunni og þar sem umrædd tilskipun hefur verið tekin upp í EES samninginn hefur hún einnig lagagildi á Íslandi.

	Reglur um mat á umhverfisáhrifum
Danmörk	Framkvæmdaraðili þarf að leggja fram skriflega umsókn um skimun eða mat á umhverfisáhrifum. Slíkt mat er nauðsynlegt ef gert er ráð fyrir að framkvæmd hafi mikil umhverfisáhrif. Hingað til hefur verið nauðsynlegt að framkvæma mat á umhverfisáhrifum fyrir öll vindorkuver á sjó.
Noregur	Framkvæmdaraðili þarf að framkvæma mat á umhverfisáhrifum vindorkuvera, bæði á sjó og landi, ef hann sækir um leyfi til uppsettrar vindorku umfram 10 MW. Fyrir framkvæmdir undir 10 MW, hvort sem er á sjó eða landi, nægir lýsing á áhrifum framkvæmda á umhverfið.
Skotland	Mat á umhverfisáhrifum samkvæmt skoskri löggjöf er háð eðli og umfangi framkvæmda og hvaða áhrif fyrirhuguð uppbygging er talin hafa á umhverfið. Varðandi verkefni á landi, þarf sérstaklega að meta hvaða áhrif framkvæmdir muni hafa á dýrlíf og plöntulíf og öll starfsemi sem talin er líkleg til að valda röskun á tegund sem vernduð er samkvæmt Evrópureglum (e. *European Protected Species*) þarf sérstakt leyfi. Varðandi verkefni á sjó ber yfirvöldum einnig að leggja mat á hvort framkvæmdir geti haft áhrif á tegundir sem njóta sérstakrar verndar samkvæmt skoskum náttúruverndarlögum.
Nýja Sjáland	Mat á umhverfisáhrifum er hluti af auðlindarstjórnunarlögunum (e. *Resource Management Act*) sem setur skilyrði fyrir nýtingu lands, lofts og vatns til orkuframleiðslu. Gerð er krafa um mat á raunverulegum og hugsanlegum áhrifum slíkra verkefna og lýsingu á mótvægisaðgerðum. Fyrir framkvæmdir á sjó er einnig nauðsynlegt að framkvæma mat á áhrifum og greina áhrif á sjávartegundir og vistkerfi, ásamt lýsingu á mótvægisaðgerðum.

Aðrar kröfur í tengslum við hugsanleg áhrif vindorkuframkvæmda á umhverfi

7.2 Til viðbótar við bein umhverfisáhrif og mat á slíkum beinum áhrifum var kallað eftir upplýsingum um aðrar gildandi takmarkanir á vindorkuframkvæmdum með hliðsjón af öðrum óbeinum áhrifum á umhverfið, svo sem sérákvæði sem tengjast verndun dýra á sjó eða á landi, hávaðamengun og sjónmengun. Eftirfarandi sérákvæði voru nefnd af samstarfsaðilum:

	Aðrar gildandi takmarkanir
Danmörk	Vistgerðartilskipun Evrópusambandsins, (*e. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora).* Fuglatilskipun Evrópusambandsins (*e. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds2009/147/EC*). Hávaða frá vindmyllum eru settar skorður með umhverfisverndarlögum og heimilt er að setja tiltekna staðla sem hluta af leyfisveitingu.
Noregur	Lög um fjölbreytileika náttúru krefjast þess að fram fari mat á uppsöfnuðum umhverfisáhrifum á vistkerfi. Samkvæmt mengunarvarnarlögum geta sveitarfélög veitt vindorkufyrirtækjum losunarheimild vegna hávaðamengunar frá vindmyllum. Hávaðamengun getur einnig fallið undir takmarkanir í skipulags- og byggingarlögum, lýðheilsulögum og lögum um fjölbreytileika náttúru.
Nýja Sjáland	Lög um vernd sjávarspendýra kveða á um vernd og stjórnun sjávarspendýra innan Nýja Sjálands. Samkvæmt dýralögum er almennt gerð krafa um sérstakt mat á áhrifum vindorkuvera þegar fyrirhuguð framkvæmd hefur áhrif á dýrategund í útrýmingarhættu eða áhrif á mikinn fjölda dýra sem eru ekki í útrýmingarhættu. Almennar reglur skaðabóta veita einstaklingum einkaréttarleg úrræði til að krefjast bóta á grundvelli hávaða og sjónmengunar. Starfsemin getur annað hvort valdið raunverulegu tjóni eða verið talin truflandi fyrir einstakling en ábyrgðin er ströng og skaðinn verður að vera fyrirsjáanlegur.

Þáttaka almennings í vindorkuverkefnum

7.3 Athyglisvert er að bera saman með hvaða hætti og á hvaða stigi verkefnis almenningi gefst kostur á að taka þátt í vindorkuverkefnum og koma skoðunum sínum eða athugasemdum á framfæri. Í Danmörku er gerð krafa um að framkvæmdaraðilar haldi opinn fund fyrir nágranna og aðra þar sem framkvæmdaraðili þarf að gera grein fyrir afleiðingum framkvæmda á nærliggjandi íbúðarhúsnæði og danska Orkustofnunin (e. *Danish Energy Authority*) þarf einnig að gera grein fyrir möguleikum einstaklinga til að krefjast bóta.

7.4 Í Noregi birtir norska vatnsauðlinda- og orkumálastofnunin leyfisumsóknir mat á áhrifum á heimasíðu sinni og á heimasíðu viðkomandi sveitarfélags. Leyfisumsókn er einnig send beint á hlutaðeigandi landeigendur, einstaklinga og hagsmunaaðila. Óskað er eftir umsögn um hvort leyfi skuli veitt til ákveðins verkefnis og ef svo er, hvort því skuli sett einhver skilyrði. Öllum sem skila umsókn eða athugasemdum gefst einnig kostur á að heimsækja viðkomandi svæði og taka það út. Eftir skoðun er aðilum gefinn frekari tveggja vikna frestur til að skila athugasemdum. Aðrir einstaklingar geta einnig haft lögvarða hagsmuni af því að leggja fram kærur vegna ákvörðunar norsku vatnsauðlinda- og orkumálastofnunarinnar um leyfisveitingu.

7.5 Í Skotlandi er algengt að vindorkuframleiðendur hafi opinberbert samráð áður en umsókn um leyfi er lögð fram. Samráð sem undanfari leyfis er skylda fyrir framkvæmdir af ákveðinni gerð og stærð. Á samráðstíma getur almenningur og aðrir hagsmunaaðilar komið á framfæri skoðunum sínum og lagt fram tillögur og í umsóknarferlinu sjálfu er almenningi einnig gefinn kostur á að gera athugasemdir. Þriðju aðilar (e. *Third parties*), eða aðilar sem ekki hafa beina hagsmuni af leyfisveitingu, hafa ekki rétt til að áfrýja leyfisveitingu í Skotlandi en aðilar sem hafa lögmæta hagsmuni geta véfengt ákvörðun um leyfisveitingu með því að skjóta máli til dómstóla. Nokkrar slíkar beiðnir hafa verið bornar undir dómstóla í Skotlandi með misjöfnum árangri á síðustu árum. Í Skotlandi er einnig algengt að framkvæmdaraðilar skuldbindi sig til að greiða tiltekna fjárhæð af hverju MW af afli til hagsbóta fyrir nærliggjandi byggðarfélög og sveitarfélagið. Um er að ræða valfrjálst framlag og hefur það því ekki áhrif við töku ákvarðana um leyfisveitingu. Skoska ríkisstjórnin hefur gripið til ýmissa aðgerða með það fyrir augum að stuðla að samfélagslegum ávinningi vindorkuverkefna, t.d. styrkjum sem nema 5.000 pundum á hvert uppsett MW á ári, sem greiðist til framkvæmdaraðila. Í Skotlandi hafa aðilar einnig gert tilraunir með sameiginlegt eignarhald á verkefnum, þar á meðal vindorkuverum á landi.

7.6 Samkvæmt gildandi löggjöf í Nýja Sjálandi verða yfirvöld að tilkynna opinberlega um umsókn um auðlindaleyfi ef starfsemin hefur, eða er líkleg til að hafa, skaðleg áhrif á umhverfið, og slík áhrif eru ekki talin vera minniháttar. Ef umsókn um leyfi er ekki kynnt opinberlega verður viðkomandi stjórnvald að tilkynna sérstaklega öllum hlutaðeigandi (e. *Affected person*) um að lögð hafi verið fram umsókn um leyfisveitingu. Ef tilkynnt er opinberlega um leyfisumsókn geta landeigendur eða aðrir hagsmunaaðilar lagt fram erindi og fengið áheyrn. Þegar um er að ræða vindorkuverkefni á sjó tilgreinir löggjöf að annað hvort þurfi eða þurfi ekki að tilkynna um fyrirhugaða leyfisveitingu, eftir umfangi og eðli verkefnanna. Með hliðsjón af eðli og umfangi vindorkuverkefna á sjó eru þau nánast undantekningarlaust tilkynningarskyld og ber að auglýsa opinberlega um fyrirhuguð verkefni og gefa aðilum kost á að tjá sig um leyfisumsóknir og koma á framfæri athugasemdum og ábendingum.

8. ÁLITAMÁL TENGD EIGNARRÉTTI

Aðgangur að landi og hlutverk landeigenda

8.1 Spurningar voru lagðar fram um aðgang að landi og um hlutverk og réttindi landeigenda í tengslum við vindorkuverkefni. Sambærileg sjónarmið virðast gilda um aðgang að landi eða jörðum í einkaeigu og í eigu ríkis- eða sveitarfélaga, þ.e. nauðsynlegt er að fá samþykki fyrir afnotum og greiða fyrir það leiguverð í samræmi við hefðbundin leigukjör. Umfjöllunin á þó einkum við um land í eigu einkaaðila. Sérstakar reglur gilda um aðgengi að hafsvæðum, sbr. frekari umfjöllun í málsgrein 8.4. að aftan. Reglur um aðgang að landi eru um margt sambærilegar því sem tíðkast hér á landi, samið er við landeigendur um afnot af landi á hefðbundnum viðskiptakjörum og nái aðilar ekki saman geta verið fyrir hendi skilyrði til eignarnáms.

8.2 Fyrir samanburð um aðgang að landi í eigu þriðja aðila, greiðslur fyrir afnot af landi og réttindi landeiganda, sjá neðangreinda töflu:

	Aðgangur að landi í eigu þriðja aðila	**Greiðslur fyrir afnot af landi**	**Réttindi landeiganda og leiðir til að takmarka eða stöðva vinnslu**
Danmörk	Framkvæmdaraðili leitast eftir að gera samninga við landeiganda. Í skipulagslögum eru ákvæði um eignarnám og yfirtöku landsvæðis nái aðilar ekki samkomulagi. Danska viðskiptaeftirlitið (e. *Danish Business Authority*) gefur út leiðbeiningar og skýrslur um eignarnám.	Landnotkun fyrir vindorkuverkefni miðast að jafnaði við lóðarleigu á hefðbundnum viðskiptakjörum.	Landeigandi getur kært ákvörðun sveitarfélags um eignarnám sem þá frestar og mögulega hindrar uppbyggingu.
Noregur	Framkvæmdaraðili skal leitast eftir að gera samning við landeiganda um leigu eða kaup á undirliggjandi landi.	Aðilum er frjálst að ákveða í samningi hvort greiðslur skulu inntar af hendi sem eingreiðsla eða með jöfnum hætti yfir	Landeigendur geta tafið framkvæmdir með því að neita að semja um lóðarleigu og lagt fram kæru vegna eignarnáms. Sé

	Náist ekki samkomulag við landeiganda er hægt að óska eftir eignarnámi. Sé fallist á eignarnám geta aðilar gert með sér frjálsan samning um bætur. Ef aðilar ná ekki saman er fjárhæð bóta lögð undir dómstóla.	líftíma vindorkuverkefnis.	ákvörðun um eignarnám talin lögmæt af dómstólum getur landeigandi ekki komið í veg fyrir uppbyggingu. Framkvæmdir geta hafist áður en bætur eru ákvarðaðar af dómstólum, ef þörf krefur, að fenginni umsókn framkvæmdaraðila.
Skotland	Samkomulag við landeiganda er forsenda verkefna. Almennt semja framkvæmdaraðilar við landeigendur um leigu á lóð. Framkvæmdaraðili getur einnig fengið umráð yfir landsvæði með vísan til áhvílandi kvaða eða réttinda (e. *Servitude rights*), en samkvæmt skoskum rétti geta verið fyrir hendi ákveðnar kvaðir eða réttindi um t.d. aðgang að landi fyrir einstaklinga eða farartæki, um vegalagningu ofl. Samþykki landeiganda er ekki skilyrði fyrir umsókn um 36. Gr. Leyfi en landeiganda er tilkynnt um umsókn þegar hún er lögð fram.	Framkvæmdaraðili mun í flestum tilfellum gera leigusamning um afnot af landi en ekki kaupsamning. Til að leigusamningur sé gildur þarf að inna greiðslur af hendi árlega en leigufjárhæð og gjalddagar eru samningsatriði á milli aðila. Oft er leigan hærri talan af (a) grunnleigu, vísitölutengdri, miðað við afkastagetu og (b) breytilegri leigu, sem oft er reiknuð sem hlutfall af brúttótekjum verkefnis.	Ef landeigandi er ekki reiðbúinn til að veita tiltekin réttindi yfir landi sínu þá er möguleiki að öðlast réttindi með kaupskylduheimildum á forræði ráðherra (e.*compulsoary purchase order*). Sýna þarf fram á nauðsyn til slíkra kaupskylduheimilda og að slík heimild sé í þágu almannahagsmuna. Ef landeigandi mótmælir getur opinber rannsókn verið nauðsynleg sem tekur að jafnaði um 18-24 mánuði.

Nýja Sjáland	Á grundvelli eignarréttar hefur landeigandi einn einkarétt á umráðum lands og er samþykki landeiganda því nauðsynlegt fyrir vinnslu og þróun á landi. Samþykki felur vanalega í sér samning milli aðila um viðeigandi aðgang að landi og tengd réttindi, svo sem umferðarétt og rétt til að flytja rafmagn.	Skilmálar aðgangssamnings eða leigusamnings eru að jafnaði samningsatriði á milli aðila og gerðir á grundvelli almennra viðskiptaskilmála. Oft gera aðilar með sér tímabundinn samning í upphafi á meðan forsendur verkefnis eru kannaðar. Seinna, ef verkefni fær tilskilin leyfi, gera aðilar með sér langtímasamning og ákveða greiðslur fyrir samningstímann. Slíkir samningar byggja oft á eingreiðslu í upphafi, fastri árlegri greiðslu fyrir hverja vindmyllu og greiðslu sem hlutfalli af raforkuframleiðslu.	Landeigandi getur komið í veg fyrir uppbyggingu á landi sínu með því að halda eftir samþykki. Áður en leyfishafi getur hafið framkvæmdir verður samþykki landeiganda að liggja fyrir og engin frumrannsókn eða aðrar skoðanir geta farið fram á landi ef samþykki landeiganda er ekki fyrir hendi.

8.3 Af framangreindu má ráða að almennt er það á færi áhugasamra framkvæmdaraðila að eiga frumkvæði að samningaviðræðum við hlutaðeigandi landeiganda. Samningar skulu gerðir sem tryggja afnot af landsvæði yfir tiltekinn tíma og í ákveðnum tilfellum er gerð krafa um að slíkir samningar liggi fyrir áður en hægt er að hefja leyfisferli. Séu landeigendur andsnúnir því að land sé nýtt undir vindorkuverkefni er í ákveðnum tilfellum hægt að fara fram á eignarnám, að því gefnu að undirliggjandi hagsmunir séu þess eðlis að eignarnám geti komið til greina samkvæmt almennum reglum hvers viðmiðunarríkis um eignarnám. Að jafnaði yrði horft til þess hvort hægt væri að framkvæma verkefni á öðrum stað með sambærilegri niðurstöðu en án áhrifa á landeiganda. Aðgang að landi þarf síðan að skoða í samhengi við fyrirliggjandi skipulagsreglur og þá helst hvort nauðsynlegt sé að tiltekið landsvæði hafi áður verið skilgreint sem landsvæði undir vindorkuverkefni eða hvort hægt sé að óska eftir breytingum á deiluskipulagi.

Sérstakar reglur í Danmörku um réttindi landeiganda

8.4 Í Danmörku hefur verið gripið til sérstakra ráðstafana til að styðja við og styrkja þróun vindorkuverkefna á landi sem vert er að fjalla sérstaklega um í tengslum við önnur álitamál tengd eignarrétti. Aðgerðirnar eru á færi dönsku Orkustofnunarinnar (e. *Danish Energy Agency*) en sú stofnun hefur meðal annars heimildir til að setja upp stuðningskerfi tengd vindorkuverkefnum á landi, í því skyni að verja rétt landeigenda en tryggja að sama skapi að fýsileg orkuverkefni verði ekki stöðvuð: Heimildirnar, eða stuðningurinn, miðar að því að tryggja þeim sem búa í nálægð við vindorkuverkefni ákveðin réttindi, til að vega á móti virðistapi fasteigna eða öðrum óþægindum sem kunna að verða á búsetu vegna nálægða við vindorkuverkefni á landi. Stuðningskerfin eru í heildina fimm, og skiptast á eftirfarandi hátt:

(a) Virðisrýrnunarkerfi, sem skuldbindur framkvæmdaraðila endurnýjanlegs orkuvers til að greiða fyrir verðtap á íbúðarhúsnæði sem rekja má til orkumannvirkja;

(b) Söluréttarkerfi sem skyldar framkvæmdaraðila til að bjóða eigandi íbúðarhúsnæðis að selja húsnæði sitt, hafi orðið verðrýrnun á húsnæðinu sem nemur meira en 1%.

(c) Bónuskerfi sem veitir nánustu nágrönnum orkumannvirkis rétt til að fá greidda árlega bónusgreiðslu sem byggir á afköstum raforkumannvirkis;

(d) Svokallað grænt kerfi (e. *Green scheme*) sem skuldbindur framkvæmdaraðila til að greiða eingreiðslu til sveitarfélags þar sem raforkuframleiðslustöð er sett upp.

(e) Tryggingarsjóð (e. *Guarantee fund*) sem er notaður til að veita ábyrgðir vegna fjármögnunar á hagkvæmnisathugunum á vindorkuverum á landi í tengslum við uppsetningu á vindmyllum.

Danska Orkustofnun hefur látið gera úttekt á afleiðingum vindorkuvera á íbúðarhúsnæði. Niðurstöður skýrslunnar eru þær að vindorkuver hafa að jafnaði neikvæð áhrif á verð íbúðarhúsnæðis en að með greiðslu bóta til eiganda sé hægt að bæta það tjón.

Aðgangur að landi í eigu ríkis eða sveitarfélaga

8.5 Samkvæmt svörum frá öllum fjórum samstarfsaðilunum mun leiga á landi í eigu samanburðarríkjanna að jafnaði fara fram á hefðbundnum viðskiptakjörum út leyfistímann, þ.e. með leigugreiðslum eða þóknun á markaðskjörum. Jörð helst því í eigu viðkomandi ríkis eða sveitarfélags en samningur er gerður við framkvæmdaraðila um leigugreiðslur yfir ákveðið tímabil verkefnis. Samningaviðræður og samningar fylgja sama mynstri og samningar við einkaaðila, sbr. umfjöllun í málsgrein 8.1 til 8.3 að framan, og er leiguverð reiknað á sambærilegan hátt þar sem m.a. er tekið mið af stærð landsvæðis, staðsetningu, uppsettu afli og raforkuframleiðslu.

8.6 Sé áhugi fyrir því að nýta landsvæði í eigu ríkisins til vindorkuverkefna ber einnig að horfa til þess hvort slíkt sé gert á grundvelli útboðs eða með umsóknarferli. Sé um útboð að ræða má allt eins ætla að útreikningar á leigugreiðslu og þóknun á markaðskjörum hafi átt sér stað áður en útboð er auglýst en sú vinna kann að eiga sér stað samhliða opinni umsókn að frumkvæði framkvæmdaraðila.

9. FLUTNINGSKERFI RAFORKU

Tenging við flutningskerfi raforku

9.1 Einn af þeim þáttum sem skoða þarf þegar raforkuverkefni eru metin heildstætt eru möguleikar á tengingu við raforkukerfi, þ.e. hvort hægt er að nýta þá innviði sem til staðar eru eða hvort nauðsynlegt er að leggjast í kostnaðarsamar fjárfestingar til að tengja raforkuver við flutningskerfið. Að sama skapi er grundvallarmunur á verkefnum á landi og á sjó þegar kemur að aðstöðu og kostnaði við tengingar. Í eftirfarandi töflu má sjá samanburð á helstu ákvæðum sem gilda um tengingar við flutningskerfi í samanburðarríkjunum.

	Vindorkuverkefni á landi	***Vindorkuverkefni á sjó***
Danmörk	Almennt er skylt að tengja vindorkuver við flutningskerfi raforku og í reglugerð er nánar kveðið á um kostnaðarskiptingu milli eiganda orkuvers og hins opinbera. Þegar um nýframkvæmdir er að ræða skal kostnaður við tengingu greiddur af eiganda vindorkuvers.	Settar hafa verið fjölmargar reglugerðir um tengingu vindorkuvera á sjó við dreifi- og flutningskerfi. Ferli raforkuflutninga er einnig lýst ítarlega í leiðbeiningum og fer flutningurinn eftir stærð stöðvarinnar og því hvort tengjast eigi beint dreifikerfi eða flutningskerfi raforku.
Noregur	Skylda er við upphaf verkefnis að tryggja að hægt sé að tengja vindorkuverkefni við tengikerfið. Ef ekki er hægt að tryggja tengingu við núverandi flutningskerfi er flutningsfyrirtækjum skylt að gangast undir nauðsynlegar fjárfestingar til að tryggja tengingu. Ef eigandi vindorkuvers á landi hyggst tengja orkuverið við tengikerfi án nægilegrar afkastagetu skal flutningsaðili rukka eiganda vindorkuvers um framkvæmdarframlag til að standa undir hluta fjárfestingarkostnaðar.	Þrátt fyrir að ekki sé framleidd raforka á sjó í Noregi benda nýlegar pólitískar umræður til þess að vilji sé til þess að tengja vindorkuver á sjó við norskan raforkumarkað með því sem hefur verið kallað radíal dreifingarkerfi (e. *Radials).* Framkvæmdaraðili virkjunar þarf að sækja um leyfi til að byggja og reka slíkt radíal dreifingarkerfi og eru slíkar framkvæmdir fjármagnaðar af viðkomandi framkvæmdaraðila.
Skotland	Dreifi- og flutningskerfi raforku í Skotlandi er tengt heildarkerfinu innan Bretlands. Að jafnaði tengjast vindorkuver sem framleiða minna en 50 MW á ári dreifikerfinu og vindorkuver sem framleiða 50 MW	Svipaðar reglur gilda um tengingar vindorkuvera á sjó og á landi. Þó er það sérkenni fyrir raforkuframleiðslu á sjó að skylda er að tengjast flutningskerfi á hafi og þaðan við flutningskerfi á landi. Sérstök

	á ári eða meira tengjast flutningskerfinu. Skylt er að bjóða upp á tengingar og flutnings- og dreifingaraðilum er skylt að veita aðgang án mismununar. Flutnings- og dreifikerfið í Skotlandi er komið að þolmörkum sökum mikillar uppbyggingar á endurnýjanlegum orkuverkefnum á liðnum árum og viðbúið er að tafir verði á næstu árum á sama tíma og endurnýjun á sér stað.	fyrirtæki, sem vísað er til sem OFTO (*e. Offshore transmission owners),* eru sjálfstæðar einingar sem skipaðar eru í gegnum útboðsferli. Eigendur vindorkuvera á hafi hafa til þessa kosið að byggja sjálfir flutningsnet á hafi samhliða uppbyggingu og þróun vindorkuverkefna. Þær einingar hafa síðar verið seldar til OFTO.
Nýja Sjáland	Ekki er gerð krafa um að vindorkuver tengist flutnings- eða dreifikerfi innan Nýja Sjálands. Transpower er aðili í eigu ríkisins sem á og rekur flutnings- og dreifikerfið í Nýja Sjálandi og sér um tengingar fyrir þá aðila sem slíkt kjósa. Sé vindorkuver staðsett þannig að erfitt er að tryggja tenginu getur verið þörf á að viðbótaruppbyggingu kerfis sem annað hvort er fjármögnuð af ríkinu eða einkaaðila, eftir umfangi og staðsetningu.	Upplýsingar eru ekki fyrir hendi um vindorkuver á sjó enda er slíkum orkuverum ekki til að dreifa.

10. TEKJUR AF VINDORKUVERKEFNUM OG HVATAKERFI

Gjöld sem ber að greiða í umsóknar- og leyfisferli vindorkuverkefna

10.1 Neðangreind tafla inniheldur samanburð á þeim gjöldum sem standa þarf skil á í umsóknar- og leyfisferli vindorkuframkvæmda í samanburðarríkjunum. Nákvæmar tölur liggur ekki fyrir, enda eru greiðslur oft háðar ýmsum atriðum, svo sem stærð og afköstum verkefna.

	Yfirlit yfir gjöld og aðrar greiðslur
Danmörk	Leyfishöfum (e. *Licence and permit holders*), ber samkvæmt kafla 51. A. Í rafveitulögum og reglugerð um greiðslu fyrir opinbera vinnslu hjá dönsku Orkustofnuninni (e. *Electricity Supply Act and Executive Order on payment for official processing by the Danish Energy Agency*) að greiða almennan stjórnsýslukostnað við afgreiðslu yfirvalda vegna viðkomandi leyfa.
Noregur	Greiða skal úrvinnslugjald til norsku vatnsauðlinda- og orkumálastofnunarinnar vegna leyfisveitinga fyrir vindorku á sjó. Afgreiðsla umsóknarinnar hefst ekki fyrr en greiðsla að fjárhæð 100.000 NOK hefur borist.
Skotland	Umsóknar- og leyfisgjöld fara eftir gerð og stærð verkefna. Greiða skal skipulagsgjöld á landi, en núgildandi fjárhæð gjalda kemur fram í bæjar og landsskipulagi (e. Town and Country Planning). Greiða skal gjöld fyrir umsóknir samkvæmt raforkulögum (e. *Electricity Act 1989*), en fjárhæð gjaldanna er sett fram í reglugerðum. Skoska ríkisstjórnin hefur til skoðunar hugsanlegar breytingar á gjaldtöku fyrir umsóknir, sem geta leitt til verulegra hækkana á gjöldum, en gjöldin munu að öllum líkindum fara eftir stærð framkvæmda og því hvort mat á umhverfisáhrifum er nauðsynlegt. Greiða skal gjöld fyrir hafleyfi (e.*Marine licence*). Gjöld fyrir hafleyfi eru ákveðin 1. Apríl ár hvert í samræmi við reglugerð og eru tengd vísitölu neysluverðs. Gjöld eru breytileg eftir tegund leyfis sem sótt er um og umfang fyrirhugaðra verka. Hægt er að krefja framkvæmdaraðila um að greiða kostnað sem fellur til vegna vegalagningar og lagfæringar á vegum samkvæmt vegalögum (e. *S96 of the Roads (Scotland) Act 1984).* Fyrir framleiðsluleyfi eru umsóknargjöld ákveðin með lögum og tilgreind á umsóknareyðublaði sem aðgengilegt er á heimasíðu Ofgem. Núverandi gjald fyrir raforkuframleiðsluleyfi (e. *Generation licence application*) er £550.
Nýja Sjáland	Yfirvöld hafa sett reglur um að notandi greiði fyrir móttöku og afgreiðslu leyfisumsókna. Allur raunverulegur kostnaður sem tengist vinnslu leyfis

	eða hafleyfis, auk hvers kyns útlagður kostnaður stjórnvalda, er gjaldfærður á umsækjanda.

10.2 Líkt og fram kemur í framangreindri töflu er erfitt að áætla nákvæmlega hverjar tekjur ríkis og sveitarfélaga séu af leyfisumsóknum og útboðsverkefnum enda fjölmargir undirliggjandi þættir sem geta haft áhrif á fjárhæðir. Í dæmaskini má nefna að í Noregi ber að greiða 100.000 NOK fyrir afgreiðslu leyfisumsókna. Í nýlegu útboðsverkefni í Skotlandi greiddu áhugasamir framkvæmdaraðilar 20.000 GBP fyrir frumþáttöku í útboði en frekari kostnaður bætist við á seinni stigum, eftir því sem framkvæmdaraðilar komast lengra í útboðsferlinu. Frumkostnaðurinn er gjald fyrir aðgang að undirliggjandi rannsóknum og útboðsgögnum. Þeir aðilar sem fengu hafsvæði úthlutað í útboðinu ber að greiða eingreiðslu að fjárhæð 100.000 £/km² en 7.000 km² af hafsvæði var úthlutað í útboðinu.

<u>Frekari upplýsingar um aðrar tekjur og sérstaka skattlagningu vindorkuverkefna</u>

10.3 Líkt og fram kemur í málsgreinum 10.1 og 10.2 eru gjöld og aðrar greiðslur í tengslum við leyfisumsóknir og útboð oft byggðar á stærð og umfangi verkefnis og því erfitt að ákvarða nákvæmlega þær tekjur sem ríki og sveitarfélög fá vegna þeirra. Til frekari samanburðar má í eftirfarandi töflu sjá frekari upplýsingar og samantekt á öðrum greiðslum tengdum vindorkuverkefnum í samanburðarríkjunum. Hafa ber í huga að aðstæður á evrópskum orkumarkaði eru viðkvæmar sem stendur og miklar breytingar hafa orðið á orkuverði undanfarin misseri. Verð raforku hefur hækkað hratt og samanburðarríkin, ef frá er talið Nýja Sjáland, búa yfir tengingu við hinn evrópska orkumarkað.

Danmörk	Eins og fram kom í umfjöllun í málsgrein 5.22 að framan, mun nýlegt útboð á svokölluðu TOR verkefni skila Danmörku miklum tekjum sem í dag eru áætlaðar 2,8 milljarðar danskra króna á árunum 2025 til 2028. Er slíkt til komið vegna undirliggjandi Contracts for Difference (CfD's) og spilar þar inn í sú mikla hækkun sem orðið hefur á raforkuverði í Evrópu undanfarið. TOR verkefnið var það fyrsta sem fór í útboð af þeim þremur vindorkuverkum sem áætlað var að bjóða út með vísan til stefnumótunar frá 2018. Að öllu óbreyttu má ætla að seinni tvö vindorkuverin muni einnig skila Danmörku tekjum á komandi árum, verði útboðsfyrirkomulag með sambærilegum hætti og haldist raforkuverð áfram hátt.
Noregur	Norska stórþingið ákvað árið 2020 að ríkisstjórnin skyldi íhuga breytingar á skattlagningu vindorku. Í fjárlögum fyrir árið 2022 lagði ríkisstjórn Solberg til sérstakan toll, vörugjald, fyrir vindorkuver á landi sem eru með fleiri en 5 vindmyllur eða með uppsett afl yfir 1 MW. Upphaflega var gert ráð fyrir því að gjaldið myndi nema einum eyri (n. *1 øre eða 0,01 NOK*) á hverja kWst af raforkuframleiðslu en norsk stjórnvöld tóku ákvörðun 28. september 2022 að hækka gjaldið upp í tvo aura (n. *2 øre eða 0,02 NOK*) á

	hverja kWst af raforkuframleiðslu. Gjaldið ber að greiða til ríkisins en skal dreift frá ríki til viðkomandi sveitarfélags eða sveitarfélaga (e. *Host municipalities*). Gjaldtakan hefur verið samþykkt en greiðslur munu ekki eiga sér stað fyrr en árið 2023. Í lok september var einnig ákveðið að fara í frekari gjaldheimtu, eins konar vörugjald eða háverðsframlag, af framleiddri raforku. Gjaldið er 23% af raforkuverði umfram 0,70 NOK á kWst. Framlagið greiðist til ríkissjóðs og verður reiknaður á hverja klukkustund raforkuframleiðslu frá 1. janúar 2023 fyrir vindorkuver með starfsleyfi samkvæmt orkulögum. Eins og fram hefur komið stefnir Noregur einnig á aukin umsvif í raforkuvinnslu á hafi.
Skotland	Í Skotlandi eru ekki til staðar neinar beinar greiðslur til hins opinbera vegna vindorkuverkefna, ef frá er talin hefðbundin skattlagning, en vindorkuverk eru skattlögð á sama hátt og önnur almenn fyrirtæki í rekstri. Nýlegar greiðslur til ríkisins vegna ScotWind verkefnis eru þær fyrstu sinnar tegundar en þar var greitt afnotagjald fyrir afnot af hafsvæði, líkt og nánar er fjallað um í málsgrein 5.22 hér að framan. Ekki var um eiginlega gjaldtöku að ræða heldur frekar „leigugreiðslur“ vegna afnota. Líkt og í Danmörku er áætlað að hátt raforkuverð muni leiða til þess að raforkuframleiðendur, á grundvelli CfDs, muni þurfa að greiða talsverðar fjárhæðir til mótaðila. Í Skotlandi munu slíkar greiðslur ekki renna til ríkissjóðs heldur til félags sem heitir „Low Carbon Contracts Company“ sem er félag í eigu hins opinbera. Greiðslur eru notaðar til að lækka álögur og greiðslur fyrir orkunotkun neytenda.
Nýja Sjáland	Í Nýja Sjálandi eru ekki fyrir hendi neinar sérstakar tekjur hins opinbera af vindorkuverkefnum, vindorkuver eru skattlögð á sama hátt og önnur fyrirtæki og engin sérstök raforkugjöld eru innheimt. Samkvæmt upplýsingum frá samstarfsaðilum þekkist það að stjórnvöld leggi á einhver gjöld á þróunartíma verkefnis sem er þá eingöngu ætlað að standa undir kostnaði vegna framkvæmda, svo sem uppbyggingu innviða, er tengjast viðkomandi raforkuverkefni.

10.4 Samkvæmt svörum frá hverjum samstarfsaðila eru engar sérstakar skattareglur eða undanþágur sem gilda um framkvæmdar- eða rekstraraðila vindorkuvera. Þess í stað eru lögaðilar skattlagðir í samræmi við almennar reglur um skattlagningu fyrirtækja í atvinnurekstri. Sem dæmi má nefna að í Noregi greiða vindorkuverk hefðbundinn tekjuskatt sem nemur 22% fyrir árið 2022 en sú skattprósenta er 28% í Nýja Sjálandi fyrir sama tímabil. Samstarfsaðilar í Noregi bentu á áhugavert atriði er snýr að skattlagningu utan norskrar landhelgi og skort á lagastoð þegar starfsemi fer fram á því svæði. Norsk yfirvöld hafa nýlega lagt til lagabreytingar til að tryggja lagagrundvöll fyrir skattlagningu vindorkuverka á norska landgrunninum. Aukinheldur má benda á að fasteignaskattur í Noregi er útsvarsskattur. Á

hafi úti takmarkast skattlagningarréttur sveitarfélaga við mannvirki sem staðsett eru innan grunnlínu.

10.5 Þá er rétt að nefna til samanburðar að í Frakklandi hefur verið farin sú leið að skattleggja vindorkuver, bæði á sjó og landi. Í Frakklandi kveða skattalög (e. *Tax Code*) á um sérstakt umráðagjald (e. *annual occupation fee*). Nákvæm staðsetning verkefnis skiptir máli við útreikning á skattlagningu en á almennum siglingarsvæðum fer upphæð gjaldsins eftir fjölda MW (4.000 EUR/MW) og fjölda vindmastra (1000 EUR á hverja vindmyllu). Vindorkuver á landi, með framleiðslugetu yfir 100kW, greiða flatan skatt sem nemur árið 2022 7,82 EUR á hverja kW af uppsettu afli. Sveitarfélög og aðrir aðilar í nærumhverfi verkefna njóta góðs af skattinum. Skattalög kveða einnig á um tiltekinn skatt á vindorkuver á sjó sem staðsett eru innan lögsögu Frakklands . Skatturinn jafngildir 18.605 evrum (EUR) fyrir hvert MW af raforku sem framleitt er árið 2022. Skattgreiðslunni er skipt á milli nánar tilgreindra aðila í neðangreindum fyrirfram ákveðnum hlutföllum:

(a) 50% af skattgreiðslunni er úthlutað til þess sveitarfélags sem á strandlengju að verkefninu og ef ætla má að mannvirki vindorkuverksins séu sjáanleg frá sveitarfélaginu;

(b) 35% af skattgreiðslunni er úthlutað til sjávarútvegs- og sjávarræktunarnefnda (e. *Maritime fisheries and marine breeding committees*);

(c) 10% af skattgreiðslunni er úthlutað til frönsku skrifstofunnar fyrir líffræðilegan fjölbreytileika (e. *French Office for Biodiversity*);

(d) 5% af skattgreiðslunni er úthlutað til sjóbjörgunarsamtaka (e. *Sea rescue organisations*).

Skatturinn tekur breytingum á hverju ári í samræmi við útgefin fjáraukalög (e. *Finance Act*).

10.6 Skattalög kveða á um svipaðan skatt á vindorkuver á sjó sem staðsett eru innan efnahagslögsögu Frakklands. Lögin tilgreina hins vegar ekki enn þá aðila sem eiga að fá skattgreiðsluna úthlutaða. Skatturinn verður ekki innheimtur fyrr en árið 2030 í fyrsta lagi, þegar fyrsta vindorkuver á sjó sem staðsett er innan efnahagslögsögu Frakklands verður tekið í notkun. Tekjur ríkis eða sveitarfélaga af vindorkuverum sem staðsett eru á opinberu landi

10.7 Samkvæmt svörum frá öllum fjórum samstarfsaðilunum mun leiga á landi í eigu samanburðarríkjanna að jafnaði fara fram á reglulegum viðskiptakjörum út leyfistímann, sbr. umfjöllun í málsgrein 8.6 að framan. Tekjur hins opinbera af vindorkuverkefnum sem staðsett eru á opinberu landi eru því aðeins hærri um það sem nemur fyrrnefndum leigu- eða afnotagreiðslum. Í samanburðarríkjunum eru ekki neinar aðrar sérstakar tekjur af vindorkuverkefnum staðsettum á opinberu landi.

Stuðningur við vindorkuframleiðslu

10.8 Það er áhugavert að í samanburðarríkjunum fjórum eru aðeins fyrir hendi mjög afmarkaðar ívilnanir eða annar opinber stuðningur við vindorkuverkefni. Ríkin eiga það þó sameiginlegt að hafa á fyrri árum verið með víðtækari ívilnanir eða stuðning, þ.e. þegar ekki var komin

sama reynsla á raforkuframleiðslu úr vindorku og nú er. Í dag eru slíkar ívilnanir eða stuðningur talin óþörf og því er ekki lengur gert ráð fyrir ívilnunum með sama hætti og áður. Athyglisvert er að bæði í Noregi og Nýja Sjálandi, þar sem raforkuframleiðsla úr vindorku á sjó er komin stutt á veg, er talið líklegt að einhver stuðningur eða ívilnanir verði í boði á næstu árum til að styðja við slíka uppbyggingu. BBA//Fjeldco telur að rétt sé að skoða hvort einhverjar ívilnanir séu nauðsynlegar á upphafsstigum vindorkuverkefna á Íslandi en miðað við reynslu í samanburðarríkjunum mætti ganga út frá því að slíkar ívilnanir þyrftu ekki að vera langlífar og innan einhverra ára væri hægt að fella þær úr gildi.

	Upplýsingar um ívilnanir eða styrki
Danmörk	Stuðningur við ný vindorkuverkefni (bæði á sjó og landi) er til staðar, í formi kerfis sem kallast Contracts for Difference (CfD's). Leyfishafi er valinn í gegnum útboðsferli og gerður er CfD við leyfishafann þar sem honum er tryggð ákveðið lágmarksverð (e. *Strike Price*) fyrir framleiðslu sína. Þegar heildsöluverð raforku er lægra en lágmarksverð fær leyfishafinn greiðslur frá ríkinu. Þegar heildsöluverð raforku er hærra en lágmarksverðið, greiðir leyfishafinn umframgreiðslur til ríkisins. Einhver eldri ívilnanakerfi eru enn í gangi sem tengjast eldri verkefnum.
Noregur	Á milli 2002 og 2011 fengu 19 verkefni á landi samtals 2,6 milljarða norskra króna í styrk til að styðja við þróun og uppbyggingu í gegnum Enova, sem er fyrirtæki í eigu ríkisins. Þessu til viðbótar voru um 7,5 milljarðar sem runnu til verkefnanna í gegnum einkafjárfestingar. Enova hefur það hlutverk að styðja við tæknilega þróun verkefna og er staðan nú sú að ekki er talið rétt að Enova styðji við frekari verkefni sökum þess hversu vel þróuð tækni til vindorkuframleiðslu á landi er orðin. Norsk stjórnvöld glíma þó við ákveðnar spurningar sem snúa að stuðningi og þróun við raforkuframleiðslu á hafi en talið er að hver kWst þurfi að seljast á ca. 0,78 norskar krónur til að standa undir framleiðslu og þróun (*e. Break even).* Það er mun hærra en almennt söluverð raforku í dag sem er í kringum 0,3 til 0,4 norskar krónur á kWst. Af þeim sökum standa stjórnvöld nú frammi fyrir ákvörðun um annað hvort að veita verkefnum á hafi fjárhagslegan stuðning eða selja raforkuna úr landi enda hægt að fá hærra verð innan Evrópu. Samkvæmt upplýsingum frá samstarfsaðila í Noregi horfa norsk stjórnvöld nú frekar til þess möguleika að niðurgreiða og styðja við þróun verkefna, í stað þess að selja raforku úr landi, a.m.k. eins og stendur. Svokölluð raforkuvottun (*e. Scheme of electricity certificates*) rann sitt skeið í lok árs 2021 en verkefni sem samþykkt voru fyrir þann tíma fá útgefið eitt raforkuvottorð fyrir hverja framleidda MWh, til 15 ára. Á árunum 2015 til 2021 voru jafnframt í gildi ákveðnar skattaívilnanir sem fólust í sérstökum og hagstæðum afskriftarreglum í fjárfestingum en

	heimilt var að afskrifa rekstrareignir að fullu á 5 árum. Slíkar heimildir eru ekki lengur fyrir hendi í Noregi.
Skotland	Styrkjakerfi sem kallast „Contracts for Difference“ eða CfDs. CfDs eru einkaréttarsamningar á milli raforkufyrirtækja annars vegar og ríkisfyrirtækja hins vegar sem vinna að því að binda kolefni og kallast „LCCC“ (*e. Low Carbon Contracts Company*). Samningur er gerður um ákveðið lágmarksverð raforku (*e. Strike Price*) og ef markaðsverð er undir því lágmarksverði fær raforkufyrirtæki greiðslu frá LCCC á grundvelli samnings en ef raforkuverð er yfir lágmarksverði þarf raforkufyrirtæki að greiða ákveðna fjárhæð til LCCC. Sökum raforkuverðs í dag eru margir raforkuframleiðendur að greiða fjárhæðir til LCCC á grundvelli CfD samninga. Samningar gilda almennt í 15 ár og er úthlutað á grundvelli úthlutunar- og uppboðsferils.
Nýja Sjáland	Engar sérstakar ívilnanir eða stuðningur eru í boði fyrir vindorkuverkefni. Horft er hugsanlegra breytinga varðandi vindorkuverkefni á sjó til að styðja við frekari raforkuframleiðslu. 15% skattaafsláttur er í boði til fyrirtækja í tengslum við útgjöld til rannsóknar og þróunar (e. *Reseach and development*).

10.9 Í Hollandi er fyrir hendi stuðningur við vindorkuverkefni, bæði á landi og á sjó, í gegnum ívilnunarkerfi sem kallast SDE+ og SDE++. SDE+ og SDE++ kerfin hafa það að markmiði að auka raforkuframleiðslu úr endurnýjanlegum orkuauðlindum í Hollandi. Kerfið er sniðið að orkuskiptum og í janúar 2021 höfðu rúmlega 4.100 umsóknir borist um SDE+ ívilnun. Uppbót er greidd til orkuframleiðanda (*e. Feed-in premium*), sem jafnar muninn á kostnaðarverði vindorkuvera og markaðsvirði afhentrar raforku. Styrkur til byggingar vindorkuvera er veittur að undangengnu útboði. Nýlega hafa verkefni eins og Borsselle Wind Farm notið góðs af SDE+.

10.10 SDE++ kerfið kom í stað SDE+ árið 2020. Til viðbótar við SDE+ sem tók aðeins til endurnýjanlegrar orku, styður SDE++ einnig tækni sem takmarkar eða kemur í veg fyrir losun á CO_2 eða öðrum gróðurhúsalofttegundum. Nauðsynlegt er fyrir vindorkufyrirtæki að framkvæma hagkvæmniathugun (e. *Feasability study*) og senda slíka athugun inn samhliða umsókn. Jafnframt er gerð krafa um að rekstur verkefna sé að hluta óarðbær en hægt sé að bæta slíka óarðbærni upp með rekstrarstyrk. Í SDE++ stuðningskerfinu eru verðmæti upprunaábyrgða (e. *Guarantees of origin*) fyrir vindorkuflokkun skoðuð sem hluti af leiðréttingarupphæð. Hollenska umhverfismatsstofnunin (e. *Netherlands Environmental Assessment Agency*) setur árlega fram viðmiðunartölur fyrir upprunaábyrgð.[4]

10.11 Þess má geta að í Hollandi er unnið að vindorkuverkefnum á sjó án niðurgreiðslu og að Holland hefur verið leiðandi í að heimila uppbyggingu vindorkuverkefna án styrkja[5].

Álitamál tengd ríkisaðstoð

10.12 Það er sameiginlegt með samanburðarríkjunum að álitamál tengd ríkisaðstoð (e. *State Aid*) hafa ekki komið upp í tengslum við stuðning eða ívilnanir til vindorkuverkefna. Í Skotlandi hafa öll stuðningskerfi sem notast hefur verið við síðustu 20 árin hlotið samþykki Evrópusambandsins. Í Danmörku hefur ríkisaðstoð til vindorkuframkvæmda sem fyrr segir dregist verulega saman síðustu árin á meðan vindorkuverkefnum fjölgar. Uppbygging verkefna er að verða mun samkeppnishæfari í verði og því fer þörfin fyrir ríkisaðstoð minnkandi. Sem dæmi má nefna Thor vindorkuverkið á sjó („Thor Havvindmøllepark“) sem er stærsta vindorkuver til þessa í Danmörku og var sett á laggirnar án nokkurra ívilnana eða stuðnings.

11. FERLI DÓMSMÁLA

Deilur og ágreiningur um vindorkuverkefni og kæruleiðir

11.1 Spurningar voru lagðar fyrir samstarfsaðilana til að skilja ferli ágreiningsmála tengdum vindorkuverkefnum í samanburðarríkjunum og til að fá upplýsingar um hvaða málsskotsleiðir standa til boða. Ferli ágreiningsmála á milli samanburðarríkjanna er mismunandi en líkt og fram hefur komið eru ákvarðanir teknar á ólíkum stöðum innan stjórnsýslunnar og því eðlilegt að málsmeðferð ágreiningsmála sé mismunandi milli ríkjanna.

	Ferli ágreiningsmála
Danmörk	Málskotsleiðir eru mismunandi eftir því hvaða stjórnvald tók ákvörðun. Ákvarðanir dönsku Orkustofnunarinnar (e. *Danish Energy Agency*) og danska Veitueftirlitsins (*e. Danish Utility Regulator*) er hægt að skjóta til Kærunefndar orkumála *(e. Energy Appeals Board*) af þeim sem hafa hagsmuna að gæta af ákvörðun. Ekki er hægt að bera mál undir dómstóla fyrr en ákvörðun um málskotið hefur verið tekið fyrir af hálfu kærunefndar orkumála. Ákvörðunum teknum af sveitarfélögum um skipulags- og umhverfismál er almennt hægt að skjóta til Kærunefndar skipulagsmála (e. *Plan Appeals Board*) eða Kærunefndar umhverfis- og matvælamála (e. *Environment and Food Complaints Board*). Undanþágum veittum af dönsku Umhverfisverndar stofnuninni (e. *The Danish Environmental Protection Agency)* og dönsku Strandyfirvöldunum (e. *The Danish Coastal Authority* er hægt að skjóta til kærunefndar umhverfis- og matvælamála (e*. Environment and Food Complaints Board*).
Noregur	Norska vatnsauðlinda- og orkumálastofnunin (e. *Norwegian Water Resources and Energy Directorate*) framkvæmir frummat á kvörtunum þegar kærufrestur samkvæmt norskum lögum er liðinn. Verði stofnunin ekki við kvörtunum verður kvörtunin sem og önnur andmæli send til Olíu- og orkumálaráðuneytisins (e. *Ministry of Petroleum and Energy*) til umfjöllunar. Sama ferli gildir um kvartanir vegna deiliskipulags sem skipulagt hefur verið af eiganda orkuvers. Almennir dómstólar geta ekki ákveðið að leyfi skuli veitt sem hefur verið hafnað af Olíu- og orkumálaráðuneytinu en geta hins vegar endurskoðað gildi leyfisákvörðunar. Hver sem á lögvarða hagsmuni að gæta samkvæmt stjórnsýslulögum getur kært ákvörðun um útgáfu leyfis.
Skotland	Umsækjandi um leyfi getur áfrýjað ákvörðun um synjun leyfis eða um skilyrði fyrir leyfisveitingu. Kæru skal annað hvort beint að endurupptökunefnd í viðkomandi sveitarfélagi eða til ráðherra. Kæruferlið fer eftir undirliggjandi ákvörðun og ákvörðunaraðila. Ákvörðun ráðherra um S36 samþykki fyrir framkvæmdum á landi er endanleg.

	Varðandi vindorkuverkefni á sjó eiga aðilar sem hafa lögvarða hagsmuni af ákvörðun lögbundinn rétt á kæru til dómstóla en grundvöllur kærunnar takmarkast við að (i) ráðherra hafi ekki haft valdheimildir til útgáfu leyfis; eða (ii) skilyrði leyfisveitingar hafi ekki uppfyllt við töku ákvörðunar. Þriðju aðilar í Skotlandi njóta ekki sjálfstæðs réttar til kæru en aðilar sem hafa lögvarða hagsmuni af ákvarðanatöku geta ávallt borið mál undir dómstóla.
Nýja Sjáland	Umhverfisdómstóllinn (e. *Environment Court*) er aðal ákvörðunarvald í ágreiningsmálum. Dómstóllinn tekur fyrir áfrýjanir aðila sem eru ósammála ákvörðunum yfirvalda samkvæmt lögum um auðlindastjórnun (e. *Resource Management Act*). Málsmeðferð umhverfisdómstólsins gerir kröfu um að aðilar reyni að leysa úr málum með sáttamiðlun eða a.m.k. þrengja þann ágreining sem til staðar er á meðan ferlinu stendur. Ákvörðunum umhverfisdómstólsins er hægt að áfrýja til Hæstaréttar, en einungis um lagaatriði (e. *Point of law*). Hvað varðar vindorkuverkefni á sjó er áfrýjunarheimild til Hæstaréttar varðandi ákvarðanir um útgáfu leyfis, skilyrði sem sett eru í leyfinu og aðrar ákvarðanir sem hægt er að krefjast endurskoðunar á samkvæmt lögum.

11.2 Rétt er að geta þess sérstaklega að málsmeðferð ágreinings- og kærumála í samanburðarríkjum gerir að jafnaði ráð fyrir aðkomu þriðju aðila, annað hvort einstaklinga eða annarra hagsmunasamtaka, svo sem dýra- eða náttúruverndarsamtaka. Skoða má hvort fyrirhuguð málsmeðferð og hugsanlegar kæruleiðir á Íslandi bjóði einnig upp á slíka möguleika strax á stjórnsýslustigi og eftir atvikum, hvaða kæruleiðir ber að tæma áður en hægt er að höfða dómsmál.

Sérstök málsmeðferð ágreiningsmála um vindorkuverkefni

11.3 Eins og að framan greinir fylgir ágreiningur um vindorkuverkefni og framkvæmd þeirra hefðbundum leiðum ágreiningsmála og dómsmála í samanburðarríkjunum fjórum. Mál eru rekin fyrir almennum dómstólum í Danmörku, Noregi og Nýja Sjálandi og í Skotlandi er það staðsetning og virði ágreinings sem ákvarðar lögsögu dómstóla í viðkomandi máli. Ágreiningsmál fylgja hefðbundum kæruleiðum innan stjórnsýslunnar, sem eftir atvikum þarf að tæma áður en hægt að kæra eða óska eftir endurskoðun ákvörðunar fyrir dómstólum.

11.4 Árið 2021 voru gerðar breytingar á ferli dómsmála í Frakklandi. Deilur tengdar vindorkuverum voru algengar fyrr á árum, sjá frekari upplýsingar í viðauka 6, sem tafði fyrir þróun og uppbyggingu verkefna. Fyrir árið 2021 þurfti stefnandi að reka dómsmál fyrir áfrýjunardómstól stjórnsýslumála í Nantes (e. *Administrative Court of Appeal in Nantes*), sem hafði lögsögu yfir stjórnsýsluágreiningi tengdum vindorkuverkefnum á sjó. Til að einfalda og flýta fyrir málsmeðferð í ágreiningsmálum tengdum vindorkuverkefnum á sjó voru svokölluð ASAP lög (*e. Acceleration and simplification of public action Act*) innleidd með reglugerð í mars 2021. Með innleiðingunni urðu breytingar á valdsviði dómstóla í tengslum við vindorkuverkefni á sjó sem falla nú eingöngu undir lögsögu stjórnsýsluhæstaréttar_sem kallast Council of State. Ekki er hægt að áfrýja niðurstöðu Council of State.

12. ANDSTAÐA VIÐ ÞRÓUN VINDORKUVERKEFNA OG VIÐHORF ALMENNINGS

Sögulegar upplýsingar um þróun vindorkuverkefna

12.1 Þegar óskað var eftir lýsingu á sögulegum erfiðleikum í tengslum við þróun vindorkuverkefna í hverju samanburðarríki fyrir sig þá bentu samstarfsaðilar allir á andstöðu almennings við uppbyggingu og framkvæmdir á vindorkuverum, þá sérstaklega andstöðu gegn vindorkuverum á landi. Andstaða almennings er oft talin tengjast sjónrænum ágangi, hávaða, skemmdum á náttúru og dýralífi og áhættu á virðistapi á íbúðarhúsnæði og öðrum eignum í nálægð við væntanleg vindorkuver. Þrátt fyrir háværa þjóðfélagsumræðu á köflum í Danmörku hefur ekki verið mikið um kærumál, samkvæmt rannsókn frá árinu 2017. Rannsóknin sýnir að andstæða við byggingu vindorkuvera er meiri í aðdraganda og undirbúningi slíkra framkvæmda. Kærumálum hefur þó fjölgað á undanförnum árum.

12.2 Samkvæmt rannsóknum framkvæmdum í Skotlandi sýna kannanir almennt mikinn stuðning við vindorkuver bæði á landi og á sjó, en stuðningur fer minnkandi ef verkefni er í nálægð við byggð. Samstarfsaðili í Skotlandi benti einnig á aðra erfiðleika sem tengjast þróun vindorku, þar meðal skort á þekkingu og tækni, skort á mannafla í sveitarfélögum, togstreitu milli þróunaraðila og þeirra er taka ákvarðanir varðandi skipulagsgjöld. Þá hefur sérfræðiþekking þeirra er taka ákvarðanir um vindorkuverkefni ekki haldist í hendur við tækniframfarir sem leiðir til þess að ákvarðanataka getur dregist. Deilur þriðju aðila hafa í heildina borið lítinn árangur en óskir um endurskoðun dómstóla hafa komið fram frá ýmsum hagsmunaaðilum.

12.3 Á Nýja Sjálandi hafa mikil vandamál skapast við þróun vindorkuverkefna vegna andstöðu þriðju aðila (e. *Third party*), þá helst heimamanna eða mana whenua (frumbyggja). Stærstu vandamálin virðast tengjast staðsetningu vindorkuvera og erfitt hefur reynst að finna staðsetningar sem takmarka sjónræna mengun. Annar lykilvandi hefur verið skortur á stefnu frá stjórnvöldum og stuðningi stjórnvalda við að auka þróun endurnýjanlegrar orku. Ekkert hefur orðið úr fjölda fyrirhugaðra vindorkuvera vegna andstöðu markaðsafla. Um þessar mundir er þó mikill áhugi á þróun vindorkuverkefna á sjó. Ríkisstjórnin hefur lýst því yfir að hún muni kanna þróun regluverks vindorku á sjó. Við því er búist að vindorkuverkefni á sjó muni hafa minni sjónræn áhrif og draga úr áhyggjum íbúa á nærliggjandi svæðum. Þrátt fyrir það er búist við því að andstaða mana whenua við uppbyggingu vindorkuvera muni ekki minnka á næstunni.

Yfirstandandi málaferli

12.4 Takmarkaðar upplýsingar eru fyrir hendi um yfirstandandi málaferli eða annan ágreining sem haft gæti áhrif á framtíð vindorkuverkefna í samanburðarríkjunum. Bent var á nýlegan dóm sem féll í Hæstarétti Noregs í október 2021 í máli milli Fosen Vind DA og tveggja ólíkra hópa af Sömum. Deilan sneri að því hvort þróun tveggja vindorkuverka, Storheia og Roann, bryti gegn réttindum Sama til hreindýraræktar samkvæmt 27. Gr. Sáttmála Sameinuðu þjóðanna um borgaraleg og stjórnmálaleg réttindi. Hæstiréttur komst einróma að þeirri niðurstöðu að brotið hefði verið gegn rétti Sama og að allar leyfisákvarðanir og eignarnámsheimildir væru ógildar. Eftir dóminn er afar óvist hvað verður um umrædd vindorkuver í Noregi, en þau standa enn. Bæði Samaþing og hópar Sama vilja að vindgarðurinn verði fjarlægður en Fosen

Vind vill að nýtt mat verði framkvæmt um fjárhæð bótanna og hvort nýjar fyrirhugaðar jöfnunaraðgerðir geti leitt til þess að vindorkuverið fái að standa.

Vakni upp frekari spurningar eða athugasemdir við lestur skýrslunnar eða ef óskað er nánari upplýsinga um einstök atriði hennar munum við fúslega veita þær upplýsingar sem óskað er eftir.

BBA//Fjeldco

Viðauki 1. SPURNINGALISTI

Comparative analysis of the legal and regulatory framework for wind power

[*Submitted on 24 May 2022*]

1 STATISTICAL INFORMATION

Total installed capacity of electricity production (GWh)	
Proportion of electricity produced from renewable energy resources (% of GWh)	
Installed capacity of electricity produced from wind energy (GWh), distinguishing onshore and offshore wind power capacities.	
Proportion of electricity produced from wind energy of total installed capacity (% of GWh), distinguishing onshore and offshore wind power capacities.	
What year did production of electricity from wind energy begin in your jurisdiction?	
Number of wind turbines currently in operation, distinguishing onshore and offshore facilities	
Expected growth of electricity production from wind energy in the next 5 years in GWh, distinguishing onshore and offshore facilities	

2 INSTITUTIONAL, REGULATION AND ADMINISTRATIVE MATTERS

2.1 Is there a governmental policy in place, or any kind government framework, concerning the harnessing of wind energy in your jurisdiction? If so, briefly describe the object of the government policy and main provisions.

2.2 Please provide a list of applicable legislation and regulations governing the use of wind energy for electricity production, distinguishing onshore and offshore wind power projects if relevant. We kindly ask you to provide a link to an online version of the applicable legislation and where and if applicable, a reference to the applicable chapter and/or articles (where only specific provisions of the Act apply to wind energy projects).

[*This could include acts governing the use wind of energy for electricity production, general provisions on electricity production, connection to the grid, specific protocols on wind turbines and their qualifications, land registration, planning and permitting, environmental impact assessment, etc.*]

2.3 Identify the governmental and administrative bodies connected to wind energy projects and briefly explain their role and activities. We kindly ask you to provide a link to the website of the applicable entity, where applicable.

[*Please provide information on involvement throughout the lifetime of a wind energy project, from possible exploration, throughout electricity production and demolishing of wind turbines. This could include a licensing authority, municipalities, sub-committees of municipalities, the government, competition authority etc.]*

2.4 Please provide information on the involvement of other private entities, to the extent possible.

2.5 Has the government and/or local municipalities pre-defined areas where wind energy can be harnessed, at sea or on land? Please describe the decision making behind the location of a wind energy project. Is there a framework in place governing possible locations of wind farms? What role due municipalities have in terms of allowing or limiting use of land?

2.6 In terms of offshore windfarms, have special areas been defined by the government and/or municipalities for future projects? If applicable, briefly describe how those areas were nominated. Can offshore wind farming be established outside of areas previously highlighted by the government?

2.7 Does the government call for tenders for wind energy projects? If so, briefly describe the tendering procedure. Can a developer, on his own initiative, reach out to the government or municipality and ask to develop a wind energy projects on a certain area of land or sea?

2.8 Other information concerning the institutional or legislative framework governing wind energy projects that you would like to add.

3 PERMITTING, LICENSES AND APPLICATIONS

3.1 Please provide a general description of the licensing procedure for wind energy projects (distinguishing onshore and offshore wind power projects if relevant) as well as a list of the licenses required, from possible exploration throughout the lifetime of a project.

[*Please provide information on the applicable governmental bodies at each stage and types of licenses.]*

3.2 Please provide a description of each license required, documents to be submitted and the general criteria for obtaining a license. Please include information on the duration of each type of license.

3.3 Are there any pre-emptive rights secured within the licensing framework, such as a pre-emptive right to move over from a feasibility phase to a utilisation phase. Does a license automatically convert into a different type of license?

3.4 Briefly describe the encumbrances in place for the license holder to keep a license, once granted.

3.5 What actions of the license holder would warrant a revision of the license? Does the license granting authority have the power to revoke or terminate a license during the term of the license? If yes, what actions of the license holder would warrant a revisions or termination of the license.

3.6 Other licensing information you feel would be valuable to understand the licensing structure of your jurisdiction.

4 ENVIRONMENTAL ISSUES

4.1 Briefly describe how environmental impact assessments, or other environmental requirements, affect the development of wind energy projects. Under what circumstances and at what stage of the project is there a requirement to perform a formal environmental impact assessment?

[*Is there a flat obligation to perform an environmental impact assessment or can, for example, the size of the wind farm impact the obligation. Briefly describe the process of the environmental impact assessment, the governmental bodies or authorities involved, appeal deadlines etc.*]

4.2 Please provide information on other applicable legal requirements relating to the effects wind energy projects can have on their environment, such as specific provisions in relation to wildlife protection (in sea or at land), noise pollution or visual pollution.

4.3 If applicable, describe other environmental or social requirements or obligations applicable to wind energy projects, distinguishing onshore and offshore wind power projects if relevant.

4.4 How can the public participate in wind energy projects and their development? At what stages can the public raise their concerns, if any, and under what circumstances?

5 PROPERTY ISSUES

5.1 Provide general information on access to land of a third party. Is there a requirement to seek consent of a landowner in the application process of a wind energy project?

5.2 How would the landowner be compensated for the use of land? Would he be entitled to any further payments during the lifetime of a wind energy project?

5.3 What are the rights of landowners of private land? Can they delay or even prevent development of wind energy projects on his or her land?

5.4 Briefly describe the zoning and planning process of wind energy projects. What are the roles of the landowner, the developers, third parties, government agencies or municipalities? Please provide information on the timing and cost of gathering and maintaining the necessary zoning and planning permits.

5.5 What rules apply to the use of wind energy for electricity production in territorial waters and the exclusive economic zone of your jurisdiction? Has your government made a statement or issued a policy regarding the harnessing of wind energy in territorial waters or the exclusive economic zone?

5.6 Are there any other aspects of you local legislation connected with the use of land or other property related matters you would like to add.

6 GRID CONNECTION

6.1 Briefly describe how wind energy farms are connected to the grid. Is there a requirement to connect wind farms to the grid and who is responsible for the connection and the cost of connecting the project to the grid?

6.2 Briefly describe grid connection and electricity transfer for offshore wind energy projects.

7 REVENUES FOR THE STATE AND INCENTIVES

7.1 Please provide information on the fees payable during the application and permission process of wind energy projects, including application fees, other fees payable as a part of the application process and fees necessary to maintain a license or operations.

7.2 How does taxation in the sector work and what taxes are payable by the owner or operator of a wind farm? Please describe and provide information on the applicable tax rate and resource tax.

7.3 What other revenue (including resource fees, if applicable) is payable to the state or the municipality in terms of the operation of wind turbines? Who benefits from the payment of property fees or other similar fees?

7.4 Does the government receive lease payments, or other similar payments, for wind turbines build on state owned land?

7.5 Does the government or municipalities offer any kind of support mechanism for wind energy projects? This could include tax deduction or deduction of other payable fees or discount on import duties for wind turbines.

7.6 Other information on state or municipality revenue you would like to add.

8 TYPE OF LITIGATION RELATED TO WIND POWER PROJECTS

8.1 Please describe the process of disputes related to the development of wind energy projects. What are the local or administrative appeal routes available for those who disapprove of a prospected project and at what time shall they raise their concerns? Does the legislative framework encourage third parties or the general population to participate in disputes?

8.2 Are there special litigation proceedings available in your jurisdiction in relation to wind power projects?

8.3 Is the development or operation of wind power projects often disputed, by either the public or other entities?

8.4 Do the same courts have jurisdiction in litigation relating to onshore and offshore projects?

9 DIFFICULTIES ENCOUNTERED IN THE DEVELOPMENT OF WIND POWER PROJECTS (LACK OF SOCIAL ACCEPTANCE, ACCIDENTS, INEFFICIENT SUPPORT MECHANISM, STATE AID ISSUES ETC).

9.1 Briefly describe historical difficulties encountered in the development of wind projects in your jurisdiction and the current standing of future development of wind energy project.

[*This could include, for example, lack of social acceptance or governmental support. Please describe briefly current public opinion on further development of wind farms. Is there a public acceptance and does in vary between onshore and offshore wind farming?]*

9.2 Are current support mechanisms sufficiently supportive of the development of wind energy in your jurisdiction, as of today? Has there been a call for changes or updates to the support mechanisms framework to better support developers or electricity producers?

[A brief description of the support mechanism would be helpful, where applicable, to understand the support mechanism structure.]

9.3 Have there been any state aid related issues in your jurisdiction in respect of wind energy projects?

9.4 Are any litigation cases or proceedings currently taking place that could affect the future of wind energy in your jurisdiction?

9.5 Any other information or clarification you would like to make in relation to the harnessing of wind energy in your jurisdiction?

VIÐAUKI 2. DANMÖRK – SVÖR VIÐ SPURNINGALISTA

This questionnaire about electricity production from wind energy in Denmark has been prepared at the request of BBA/Fjeldco law firm in Iceland ("BBA").

BBA has been retained by the Icelandic Ministry of the Environment, Energy and Climate to perform a comparative analysis of the legal and regulatory framework for electricity production from wind power across several leading jurisdictions.

Horten assists BBA in this project by providing a general introduction to the Danish regulation on wind energy production by answering the questionnaire developed and set forth by BBA.

The answers to this questionnaire have been prepared with the aim of providing a general overview of the Danish regulation of wind energy production. To provide an accessible introduction, this questionnaire only addresses the most prominent Danish regulations and frameworks.

Thus, this questionnaire does not address all Executive Orders, general guidelines and options for exemptions and project-specific regulations that are inherent in the fast-developing cross-legal framework the energy sector requires.

The latest statistical information on wind power capacity currently available is from 2020. Thus, our answers are based on this information and does not take into consideration the development from 2020 and until today.

1. STATISTICAL INFORMATION

Statistical information is available on the following links:

- Energy in Denmark, Data, tables, statistics and maps, 2020 (in English): F:\SYS\Statistik\Publiceringer\2020\Energy in Denmark 2020\pdf\Forside (ens.dk)
- Facts about Wind Power | Energistyrelsen (ens.dk)

1.1 Total installed capacity of Electricity production (GWh)

The capacity of electricity in 2020 was 15,489 MW[1], which corresponds to 15.489 GW[2].

[1] Nøgletal om energiforbrug og -forsyning | Energistyrelsen (ens.dk)

[2] The electricity capacity is the maximum, instantaneous electricity production from a power plant, cogeneration plant, wind turbine or similar. Electricity capacity is measured in MW (megawatt) or kW (kilowatt). The electricity capacity does not express a plant's current production but what the plant can produce at a given moment see Microsoft Word - Begreber og definitioner.doc (ens.dk)

Electricity capacity (ultimo)

[MW]	1994	2000	2010	2020
Total electricity capacity	**10 768**	**12 598**	**13 450**	**15 489**
Large-scale units	9 126	8 160	7 175	5 544
Small-scale units	773	1 462	1 819	1 788
Autoproducers	339	574	638	586
Wind	521	2 390	3 802	6 259
Solar	0	1	7	1 304
Hydro	8	10	9	7

[3]

1.2 Proportion of electricity produced from renewable energy resources (% of GWh)

The production of electricity based on renewable energy in 2020 accounted for 68 % of the domestic electricity supply against 67.5% in 2019. Wind power contributed 47 %. Biomass accounted for 15.1 % and solar energy, hydropower and biogas the remaining 5.9 % [4&5].

1.3 Installed capacity of electricity produced from wind energy (GWh), distinguishing onshore and offshore wind power capacities

The wind power capacity in 2020 was 6.259 GW against 6.103 GW the year before. The capacity of the onshore and offshore wind turbines in 2020 was 4.559 GW and 1.701 GW, respectively.

Total capacity of wind turbines by size [MW]

	1990	2000			2020		
	Onshore turbines	Onshore turbines	Offshore turbines	Total	Onshore turbines	Offshore turbines	Total
Total	**326**	**2 340**	**50**	**2 390**	**4 414**	**1 701**	**6 115**
– 499 kW	317	533	5	538	175	0	**175**
500 – 999 kW	6	1 512	5	1 517	1 633	5	**1 638**
1000 – 1999 kW	3	279	0	279	413	-	**413**
2000 – kW	-	16	40	56	2 193	1 696	**3 889**

[6]

1.4 Proportion of electricity produced from wind energy of total installed capacity (% of GWh), distinguishing onshore and offshore wind power capacities.

The total production of wind energy in 2020 was 58.789 PJ[7]. As mentioned above, the wind power capacity was 6,259 GW in the same year.

It has not been possible to find the proportion of electricity produced from wind energy of total installed capacity distinguishing by onshore and offshore wind power projects.

[3] From F:\SYS\Statistik\Publiceringer\2020\Energy in Denmark 2020\pdf\Forside (ens.dk) page 10

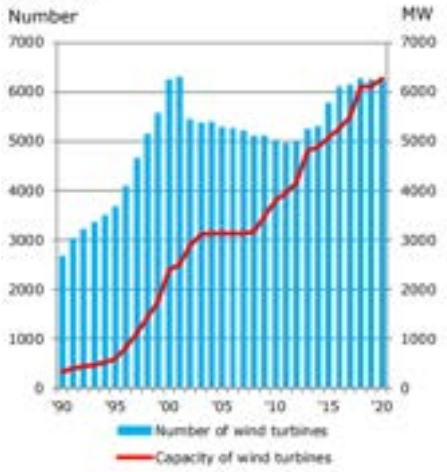
[4] F:\SYS\Statistik\Publiceringer\2020\Energistatistik 2020_pdf\Dansk\Final version\Forside_2020 (ens.dk) page 3 and Nøgletal om energiforbrug og -forsyning | Energistyrelsen (ens.dk)

[5] Renewable energy is defined as solar energy, wind power, hydropower, geothermal energy, biomass (straw, wood chips, firewood, wood pellets, wood waste, fish oil and biodegradable waste), biogas, bioethanol and biodiesel and heat pumps, see Microsoft Word - Begreber og definitioner.doc (ens.dk)

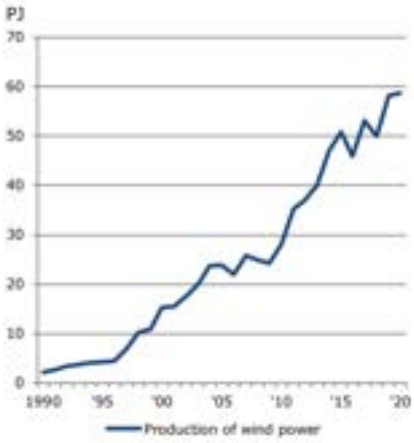
[6] From F:\SYS\Statistik\Publiceringer\2020\Energy in Denmark 2020\pdf\Forside (ens.dk) page 9

[7] Page 5 F:\SYS\Statistik\Publiceringer\2020\Energistatistik 2020_pdf\Dansk\Final version\Forside_2020 (ens.dk)

Number of wind turbines and size of capacity



Production of wind power



[8]

1.5 What year did production of electricity from wind energy begin in your jurisdiction?

Denmark has been installing wind turbines onshore since the 1970's.

1.6 Number of wind turbines currently in operation, distinguishing onshore and offshore facilities

Number of wind turbines by size

	1990	2000			2020		
	Onshore turbines	Onshore turbines	Offshore turbines	Total	Onshore turbines	Offshore turbines	Total
Total	**2 666**	**6 194**	**41**	**6 235**	**5 692**	**558**	**6 250**
– 499 kW	2 656	3 652	11	3 663	2 225	0	2 225
500 – 999 kW	8	2 283	10	2 293	2 395	10	2 405
1000 – 1999 kW	2	251	-	251	333	-	333
2000 – kW	0	8	20	28	739	548	

[9]

1.7 Expected growth of electricity production from wind energy in the next 5 years in GWh, distinguishing onshore and offshore facilities

It has not been possible to find exact data on the expected growth of electricity production from wind energy in the next 5 years, distinguishing onshore and offshore facilities.

For more information on the Danish government's policy for future growth of electricity production from wind energy, please see section 0 below.

[8] From page 9: F:\SYS\Statistik\Publiceringer\2020\Energy in Denmark 2020\pdf\Forside (ens.dk)

[9] F:\SYS\Statistik\Publiceringer\2020\Energy in Denmark 2020\pdf\Forside (ens.dk) page 9

2. INSTITUTIONAL, REGULATORY AND ADMINISTRATIVE MATTERS

2.1 Is there a governmental policy in place, or any kind of government framework, concerning the harnessing of wind energy in your jurisdiction? If so, briefly describe the object of the government policy and main provisions.

On 19 April 2022, the Danish government presented its reform proposal "Denmark can do more II" ("Danmark kan mere II")[10]. According to the government, the proposal must increase the pace of the green transition. The proposal consists of a total of five tracks, where one of the tracks is to produce more green power that specifically involves:

- Offering an additional 1-4 GW of offshore wind for establishment before the end of 2030. This initiative must be seen in the context that the production of power from offshore wind in 2022 according to the government proposal is amounting 2.3 GW. And political agreements have been reached to build an additional 16 GW, of which an energy island of 10 GW in the North Sea. The government wants to utilize the North Sea's full offshore wind potential. It is currently estimated that there is a total potential for utilizing up to 35 GW of offshore wind in the North Sea by 2050.

- Quadrupling the total production of renewable energy from solar cells and wind turbines onshore by 2030

- Preparing for more energy islands[11]

- Removing barriers, creating a smoother review process and better balance in the environmental regulation

The proposal is accessible here: Danmark kan mere II – Regeringen.dk

The proposal "Denmark can do more II" is an extension of several other green agreements, including the political agreement from March 2022 on Power-to-X, which – among other things – will provide a better opportunity to run power lines directly from wind and solar parks for Power-to-X facilities12. The agreement is accessible here: Aftale; Udvikling og fremme af brint og grønne brændstoffer (Power-to-X strategi).pdf (kefm.dk)

At the North Sea Summit in May 2022, the Heads of Government of Germany, Belgium, the Netherlands and Denmark also signed a joint declaration aiming to jointly supply at least 65 GWh of offshore wind in 2030 and increase capacity to at least 150 GWh in 2050[13].

In June 2020, a climate agreement was entered, deciding to initiate the work of realizing two energy islands; one in the North Sea and one in the Baltic Sea. The agreement is accessible here: Klimaaftale for energi og industri mv. 2020 – Regeringen.dk

[10] Danmark kan mere II - Regeringen.dk and Danmark skal være grønnere og uafhængig af gas fra Rusland (kefm.dk)

[11] The islands serve as hubs that gather electricity from the surrounding offshore wind farms and distribute it to the electricity grid in Denmark as well as directly to other countries, giving households and businesses access to this green electricity. This allows electricity from an area with vast wind resources to be more easily routed to areas that need it the most, while also ensuring that the energy generated from the turbines is utilized as efficiently as possible in terms of demand for electricity.

[12] Bred milliardaftale sætter turbo på nye grønne brændstoffer (kefm.dk)

[13] Historisk erklæring skal sikre grøn strøm til 230 mio. europæiske husstande (kefm.dk)

In 2018, a political agreement was entered. The agreement includes the following initiatives[14]:

- World-class offshore wind
- Renewable energy on market conditions
- Reduction of taxes on electricity and restructuring of surplus heat utilisation
- Targeted energy savings
- Modernisation of the heating sector and mitigating the impacts of eliminating the "base subsidy"
- Strengthened energy and climate research
- Denmark leading the way in exports of green energy solutions
- A smart and flexible energy system
- Funding for green transport
- Reserve for additional investments in renewable energy from 2025 onwards

The Energy Agreement is accessible in English here: Energy Agreement (kefm.dk).

2.2 Please provide a list of applicable legislation and regulations governing the use of wind energy for electricity production, distinguishing onshore and offshore wind power projects if relevant. We kindly ask you to provide a link to an online version of the applicable legislation and where and if applicable, a reference to the applicable chapter and/or articles (where only specific provisions of the Act apply to wind energy projects).

[This could include acts governing the use of wind energy for electricity production, general provisions on electricity production, connection to the grid, specific protocols on wind turbines and their qualifications, land registration, planning and permitting, environmental impact assessment, etc.]

Applicable legislation and regulations (references to applicable chapters and/or articles together with a distinction between regulations that apply to onshore and offshore wind power projects will be introduced in the following questions)[15]:

- **Electricity Supply Act** ("Elforsyningsloven"). Link: Elforsyningsloven (retsinformation.dk)
- **Electricity Production Order** („Elproduktionsbekendtgørelsen"). Link: Elproduktionsbekendtgørelsen (retsinformation.dk)
- **Promotion of Renewable Energy Act („RE Act")** („Lov om fremme af vedvarende energi „). Link: VE-loven (retsinformation.dk).
- Note that an amendment to the RE Act enters into force on 1 July 2022. Link: L 138 – 2021-22 (som vedtaget): Forslag til lov om ændring af lov om fremme af

[14] Bredt politisk flertal bag en ambitiøs og grøn energiaftale (kefm.dk) and Energy Agreement (kefm.dk)

[15] Not complete listing of all rules

vedvarende energi. (Justering af rammer for etablering af vedvarende energi-anlæg på havet uden for udbud og udvidelse af VE-ordningerne til at omfatte solcelleanlæg på havet og visse solcelleanlæg på søer m.v.). / Folketinget (ft.dk).

- **Maritime Spatial Planning Act** („Bekendtgørelse af lov om maritim fysisk planlægning"): Bekendtgørelse af lov om maritim fysisk planlægning (retsinformation.dk)
- **Maritime Spatial Plan** („Havplanen"): Danmarks Havplan
- **Executive Order on impact assessment of electricity generation plants at sea** („Bekendtgørelse om konsekvensvurdering af elproduktionsanlæg på havet"). Link: Bekendtgørelse om konsekvensvurdering vedrørende internationale naturbeskyttelsesområder samt beskyttelse af visse arter ved projekter om etablering m.v. af elproduktionsanlæg og elforsyningsnet på havet (retsinformation.dk)
- **The Planning Act** ("Planloven"). Link: Planloven (retsinformation.dk)
- **Executive Order on wind turbine planning** („Bekendtgørelse om planlægning af vindmøller"). Link: Bekendtgørelse om planlægning for og tilladelse til opstilling af vindmøller (retsinformation.dk)
- **Building Regulation** („BR 18"). Link: Bekendtgørelse om bygningsreglement 2018 (BR18) (retsinformation.dk)
- **Building Act** („Byggeloven"). Link: Byggeloven (retsinformation.dk)
- **Executive Order on wind turbines** ("Vindmøllebekendtgørelsen"). Link: Vindmøllebekendtgørelsen (retsinformation.dk)
- **The Environmental Assessment Act** ("Miljøvurderingsloven"). Link: Miljøvurderingsloven (retsinformation.dk)
- **Executive Order on environmental assessment** („Miljøvurderingsbekendtgørelsen"). Link: Miljøvurderingsbekendtgørelsen (retsinformation.dk)
- **Nature Conservation Act** („Naturbeskyttelsesloven"). Link: Naturbeskyttelsesloven (retsinformation.dk)
- **Executive Order on habitats** („Planhabitatbekendtgørelsen"). Link: Bekendtgørelse om administration af planloven i forbindelse med internationale naturbeskyttelsesområder samt beskyttelse af visse arter (retsinformation.dk)
- **Executive Order on a technical certification scheme for wind turbines** ("Bekendtgørelse om certificering mv. Af vindmøller"). Link: Executive Order on a technical certification scheme for wind turbines (ens.dk) (English) and Bekendtgørelse om teknisk certificering og servicering af vindmøller m.v. (retsinformation.dk)
- **Executive Order on grid connection of wind turbines** („Bekendtgørelse om nettilslutning af vindmøller"). Link: Bekendtgørelse om nettilslutning af vindmøller, solcelleanlæg, bølgekraftanlæg og vandkraftværker (retsinformation.dk)

2.3 Identify the governmental and administrative bodies connected to wind energy projects and briefly explain their role and activities. We kindly ask you to provide a link to the website of the applicable entity, where applicable.

[*Please provide information on involvement throughout the lifetime of a wind energy project, from possible exploration, throughout electricity production and demolishing of wind turbines. This could include a licensing authority, municipalities, sub-committees of municipalities, the government, competition authority, etc.]*

The Danish legal framework for establishment of wind turbines is characterized by a regulatory split between onshore and offshore wind turbines. The governmental and administrative bodies therefore depend on whether it is an onshore or offshore wind energy project.

Onshore wind energy projects:

- The establishment of onshore wind turbines is generally regulated under the Danish Planning Act and the local authorities (municipalities) are as a main rule responsible for planning as well as environmental assessment procedures.
- Several decisions made by the municipalities can be appealed to the Plan Appeals Board ("Planklagenævnet") and the Environment and Food Complaints Board ("Miljø- og Fødevareklagenævnet"). Links: Planklagenævnet (naevneneshus.dk) and Miljø- og Fødevareklagenævnet (naevneneshus.dk)
- The Danish Environmental Protection Agency grants certain exemptions in the environmental field. These decisions can be appealed to the Environment and Food Complaints Board. Link: The Danish Environmental Protection Agency (EPA) (mst.dk)).
- The Danish Coastal Authority grants certain exemptions in the coastal field. These decisions can be appealed to "Miljø- og Fødevareklagenævnet". Link: English (kyst.dk).
- The Danish Housing and Planning Authority administers the rules and prepares guidance in the area. Link: Vindmøller | Planloven – Erhvervsstyrelsen.dk and Danish Housing and Planning Authority (bpst.dk)

Offshore wind energy projects:

- The establishment of offshore wind turbines is generally regulated under the Renewable Energy Act and the Danish Energy Agency is the relevant authority with the possibility of appeals to the Energy Appeals Board. Link: Energistyrelsen | (ens.dk) and Energiklagenævnet (naevneneshus.dk). The agency is an institution under the Danish Ministry of Climate, Energy and Utilities. For more details on the agency and the ministry in English: Organisation (kefm.dk)
- The Appeals Bord in the Energy Area deals with civil law complaints from consumers against energy companies. Link: Om os (energianke.dk)
- The Danish Maritime Authority is responsible for the maritime spatial plan. Link: Maritime spatial plan | Danish Maritime Authority (dma.dk)

Other bodies:

- The Danish Utility Regulator regulates the Danish markets for electricity, natural gas and district heating. In the electricity market, the regulation focuses on the network companies. The Authority sets the allowed price for electricity companies with an obligation to supply. In the natural gas market, the regulation also focuses on the network companies. The Authority also sets the price for natural gas supplied by the natural gas companies with an obligation to supply. Link: Hjem (forsyningstilsynet.dk)

- Energinet is an independent, state-owned TSO for electricity and gas. Link: Frontpage | Energinet

- The Climate Council is an independent body of experts. It provides suggestions for cost-effective climate policy solutions, paving the way for a society with very low greenhouse gas emissions while simultaneously maintaining welfare and development. Link: Klimarådet (klimaraadet.dk)

2.4 Please provide information on the involvement of other private entities, to the extent possible.

The distribution system operators (DSOs) that are connecting onshore windfarms to the distribution grid are private companies. Apart from that, no private entities are involved.

2.5 Has the government and/or local municipalities predefined areas where wind energy can be harnessed, at sea or on land? Please describe the decision making behind the location of a wind energy project. Is there a framework in place governing possible locations of wind farms? What role do municipalities have in terms of allowing or limiting use of land?

The Danish legal framework for the establishment of wind turbines is characterized by a regulatory split between onshore and offshore wind turbines. The issue as regards predefined areas where wind energy can be harnessed offshore is therefore handled separately in question 2.6 below.

Strategic planning for *onshore* wind turbines is an important element of the Danish planning system. The municipalities shall as part of the municipal plans – possibly as a separate planning document – designate potential wind turbine areas, under the general requirement in section 11 a (1) (no. 5) of the Planning Act to produce municipal planning guidelines for technical installations ("kommuneplanretningslinjer"). According to section 2 (1) of the Executive Order on Wind Turbine Planning[16], wind turbines may only be set up within designated areas in the municipal planning guidelines.

The Planning Act does not"stipulate how many areas "hat should be designated and there are no formal obligations for each municipality to plan for a certain level of wind energy capacity.

As an assistance to the municipalities to find suitable areas for the wind turbines of the future, the Danish Housing and Planning Agency has prepared a "giskort", which shows areas in Denmark located at least 400, 500 and 600 meters from the nearest dwelling. Link: kort.erst.dk.

The issuance of municipal planning guidelines for wind turbine areas is a prerequisite for the subsequent elaboration of project plans (local plans) for wind turbine projects. The

[16] Bekendtgørelse om planlægning for og tilladelse til opstilling af vindmøller (retsinformation.dk)

municipal plan shall also set framework provisions for local plans ("rammebestemmelser"). The guidelines serve as an administrative basis for possible future wind turbine areas. Interested builders use the guidelines to apply for establishment of wind turbines in the areas designated by the municipality.

If a site has not been designated in advance – through strategic planning – it is possible to adopt a municipal planning supplement ("kommuneplantillæg") together with the local (project) plan. Thus, there is a possibility that the purpose of strategic planning for wind turbines may be undermined by an ad-hoc project planning for individual wind energy projects. The more traditional planning approach of strategic planning may thus be challenged by an ad-hoc approach to the siting of wind turbines.

The strategic designation of potential onshore wind turbine areas is subject to procedural requirements according to the Planning Act. This includes a general requirement to call for ideas and proposals from the public before drawing up a plan proposal, cf. section 23c of the Planning Act. After the drawing up of a plan proposal, there is a public consultation period of minimum 8 weeks prior to the final adoption of the plan. If there are any major changes from the plan proposal to the final plan, an additional consultation might be required, cf. section 27 of the Planning Act. It is possible within 4 weeks after the announcement of the decision to appeal the decision to adopt a plan proposal as well as the final plan on issues of legality, i.e. procedural flaws, lack of compliance with legal requirements or general principles of law, to the Plan Appeals Board, cf. section 58 of the Planning Act. It should be kept in mind that a strategic environmental assessment (SEA) is likely to be required prior to the adoption of the plan[17].

For further information on the process, see the following links: Vejledning om planlægning for og tilladelse til opstilling af vindmøller (erhvervsstyrelsen.dk), Bekendtgørelse om planlægning for og tilladelse til opstilling af vindmøller (retsinformation.dk) and Vindmøller | Planloven – Erhvervsstyrelsen.dk

2.6 In terms of offshore windfarms, have special areas been defined by the government and/or municipalities for future projects? If applicable, briefly describe how those areas were nominated. Can offshore wind farming be established outside of areas previously highlighted by the government?

Yes, special areas for offshore windfarms have been defined.

Offshore windfarms are regulated by the rules in the Maritime Planning Act (Executive Order no. 400 of April 6, 2020)[18] and the maritime spatial plan[19]. According to this regulation – as a main rule – it is only possible to adopt plans and licenses in areas that have been laid out for renewable energy in the maritime spatial plan.

Applications for licences outside the designated areas require a change of the maritime spatial plan ("plantillæg"). In such cases, the Danish Energy Agency must carry out a consultation of relevant authorities and carry out relevant impact assessments.

To ensure that the future expansion with offshore wind turbines doesn't conflict with other significant interest, the Danish Energy Agency maps the most suitable locations for future

[17] Mapping of the legal framework for siting of wind turbines – Denmark (ku.dk)

[18] Bekendtgørelse af lov om maritim fysisk planlægning (retsinformation.dk)

[19] Danmarks Havplan

offshore wind farms. At the following link you can find the latest screenings etc.: Fakta om vindenergi | Energistyrelsen (ens.dk)

The Danish Maritime Authority then conducts a public consultation. The change of the maritime spatial plan is then issued by the Minister of Trade and Industry in form of an amendment notice. The Maritime Planning Act, part 4, regulates a change of the maritime spatial plan.

As regards the tender or the open-door procedure, the Danish Energy Agency makes further relevant consultations with authorities (see the description of these processes below).

At the following link you can get an overview of prepared action plans, state screenings, planning of the offshore wind farm of the future and completed analyses on promoting the competition of offshore wind farms in Denmark: Fakta om vindenergi | Energistyrelsen (ens.dk) and Wind Power | Energistyrelsen (ens.dk)

2.7 Does the government call for tenders for wind energy projects? If so, briefly describe the tendering procedure. Can a developer, on his own initiative, reach out to the government or municipality and ask to develop a wind energy projects on a certain area of land or sea?

The establishment of offshore wind turbines can follow a tender procedure run by the Danish Energy Agency or an open-door procedure.

The project developer can take the initiative to establish an offshore wind farm under the open-door procedure. The project developer is also able to take the initiative to establish an onshore wind farm after the procedure in the Planning Act.

Tenders for onshore wind energy projects:

The Danish Energy Agency regularly calls for technology-neutral tenders on subsidies for electricity generated in Denmark by onshore wind turbines, open door offshore wind turbines, wave power plants, hydroelectric power plants and/or solar PV installations.

For more information: Teknologineutrale udbud | Energistyrelsen (ens.dk)

Tenders for offshore wind energy projects:

Most new offshore wind farms in Denmark are established under a tendering procedure where The Danish Energy Agency announces a tender for an offshore wind farm of a specific size in a specific geographical area.

For more information:

- Procedures and Permits for Offshore Wind Parks | Energistyrelsen (ens.dk)
- Havvindmøllepark i udbud | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk)
- Havvindmølleparker i udbud – underside | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk)

2.8 Other information concerning the institutional or legislative framework governing wind energy projects that you would like to add?

No.

3. PERMITS, LICENSES AND APPLICATIONS

3.1 Please provide a general description of the licensing procedure for wind energy projects (distinguishing onshore and offshore wind power projects if relevant) as well as a list of the licenses required, from possible exploration throughout the lifetime of a project.

[*Please provide information on the applicable governmental bodies at each stage and types of licenses.]*

Permits requirements:	
Offshore	Onshore
License to carry out preliminary investigations License to establish the offshore wind turbines License to exploit wind power for a certain number of years.	Rural zone permit (if no local plan) EIA permit Permits for establishment of the turbines and for production of electricity Building permit

Offshore wind power projects:

The conditions for offshore wind farms are defined in the Promotion of Renewable Energy Act (RE Act). In part 3, it is stated that the right to exploit energy from water and wind within the territorial waters and the exclusive economic zone (up to 200 nautical miles) around Denmark belongs to the Danish State.

Thus, three licenses are required to establish an offshore wind farm in Denmark. As previously mentioned, the establishment of offshore wind turbines can follow a tender procedure or an open-door procedure. For both procedures, the project developer must obtain all three licenses.

The three licenses are granted by the Danish Energy Agency, which serves as a "one-stop-shop" for the project developer. As part of the one-stop shop concept, the Danish Energy Agency initiates a hearing of other government bodies to clarify whether there are other major public interests that could block the implementation of the project before the Danish Energy Agency actually begins processing an application. Affected municipalities must in this regard indicate the use of their conditional right of objection, cf. section 22b of the RE Act. For more information on section 22b see question 3.6.

The three licenses are given successively for a specific project[20]:

1. License to carry out preliminary investigations

[20] Procedures and Permits for Offshore Wind Parks | Energistyrelsen (ens.dk)

2. License to establish the offshore wind turbines (only given if preliminary investigations show that the project is compatible with the relevant interests at sea)

3. License to exploit wind power for a certain number of years, and an approval for electricity production (given if conditions in license to establish project are met).

For further information on the specific licenses and processes after the *tender procedure*: Havvindmøllepark i udbud | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk) and Udbud på havvindmølleområdet | Energistyrelsen (ens.dk)

For further information on the specific licenses and process after the *open-door procedure*: Åben Dør-havvindmøllepark | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk) and Åben-dør-ordningen for havvindmøller | Energistyrelsen (ens.dk)

See also: Procedures and Permits for Offshore Wind Parks | Energistyrelsen (ens.dk)

Onshore wind power projects:

In most cases the establishment of wind turbines will require a local plan ("lokalplan"). The criterion for requiring a local plan is whether the project will lead to a significant change considering the character of the area. This means that a smaller expansion of an existing wind farm may not require a local plan. As mentioned above, a local (project) plan for wind turbines can only be adopted if the area has been designated in the municipal plan. A local plan shall also comply with the planning requirements in the Executive Order on Wind Turbine Planning. A local plan for a wind turbine project shall lay down the precise siting, number, minimum and maximum height as well as the design of the turbines.

For onshore projects a local (project) plan will normally lay down the project details and replace the rural zone permit which would otherwise be required, cf. section 35 of the Planning Act. It should be specified in the local plan that it replaces the rural zone permit. If a local plan is not required, a rural permit should be obtained by application to the municipality.

According to the Building Act and the Building Regulation, a building permit issued by the municipality may be required.

Depending on the capacity of the wind turbines a permit for establishment of the wind turbines and a permit for production of electricity – both issued by the Danish Energy Agency may be required.

If an EIA has been carried out, an EIA permit will be required. The EIA permit may lay down details and conditions for the project, e.g. addressing potential adverse environmental effects such as visual intrusion, noise or shadowing/flickering as well as decommissioning requirements.

Specific permit requirements may apply if the wind turbines are to be established in an area that is subject to special protection requirements, e.g. according to the Nature Protection Act or the Forest Act.[21]

For further information on the specific licenses and procedure: Vejledning om planlægning for og tilladelse til opstilling af vindmøller (erhvervsstyrelsen.dk),

[21] Mapping of the legal framework for siting of wind turbines – Denmark (ku.dk)

vejledning_kommuneplan08.pdf (erhvervsstyrelsen.dk) and Landvindmøller | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk)

3.2 Please provide a description of each license required, documents to be submitted and the general criteria for obtaining a license. Please include information on the duration of each type of license.

Onshore:

For a description of each license required, see question 3.1 above and the following links:

- Landvindmøller | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk)
- Vejledning om planlægning for og tilladelse til opstilling af vindmøller (erhvervsstyrelsen.dk) and vejledning_kommuneplan08.pdf (erhvervsstyrelsen.dk)

For a description of each license required, see question 3.1 above and the following links: Havvindmøllepark i udbud | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk) and Åben Dør-havvindmøllepark | Energistyrelsen – Vedvarende Energianlæg (veprojekter.dk)

3.3 Are there any pre-emptive rights secured within the licensing framework, such as a pre-emptive right to move over from a feasibility phase to a utilisation phase. Does a license automatically convert into a different type of license?

No.

3.4 Briefly describe the encumbrances in place for the license holder to keep a license, once granted.

The permits and licenses will contain terms and conditions – including financial and technical terms and conditions – that needs to be complied with in order to keep the license. If the terms are not complied with, the license can ultimately be withdrawn.

3.5 What actions of the license holder would warrant a revision of the license? Does the license granting authority have the power to revoke or terminate a license during the term of the license? If yes, what actions of the license holder would warrant a revisions or termination of the license.

- If the Electricity Supply Act, the Renewable Energy Act or rules issued under these Acts are repeatedly violated.
- If incorrect or misleading information is provided in grant application.
- In case of bankruptcy petition or reorganization proceedings.
- I case of gross or repeated breach of terms set out in license.

3.6 Other licensing information you feel would be valuable to understand the licensing structure of your jurisdiction.

As mentioned previously, the establishment of offshore wind turbines can follow a tender procedure or an open-door-procedure.

After the open-door-procedure the project developer must submit an unsolicited application to the Danish Energy Agency for a license to carry out preliminary investigations in the given area. The Danish Energy Agency will thereafter forward the application to relevant authorities, including affected municipalities, for consultation. Affected municipalities must in this regard indicate the use of their conditional right of objection, cf. section 22b of the RE Act.

A new amendment to the Renewable Energy Act enters into force on 1 July 2022. The amendment means i.a. that the municipalities' conditional right of objection is changed to an absolute veto. This means that municipalities with a coastline up to 15 km from an applied area will be able to veto the granting of a license to carry out preliminary investigations in the given area.

The new amendment is available here: L 138 – 2021-22 (som vedtaget): Forslag til lov om ændring af lov om fremme af vedvarende energi. (Justering af rammer for etablering af vedvarende energi-anlæg på havet uden for udbud og udvidelse af VE-ordningerne til at omfatte solcelleanlæg på havet og visse solcelleanlæg på søer m.v.). / Folketinget (ft.dk)

4. ENVIRONMENTAL ISSUES

4.1 Briefly describe how environmental impact assessments, or other environmental requirements, affect the development of wind energy projects. Under what circumstances and at what stage of the project is there a requirement to perform a formal environmental impact assessment?

[*Is there a flat obligation to perform an environmental impact assessment or can, for example, the size of the wind farm impact the obligation. Briefly describe the process of the environmental impact assessment, the governmental bodies or authorities involved, appeal deadlines etc.*]

Environmental assessment requirements include both (strategic) environmental assessments of plans and programmes (SEA) and environmental impact assessments (EIA) of projects. Furthermore, specific assessment requirements apply in accordance with the EU Habitats Directive as regards potential effects on Natura 2000 areas (and/or Annex IV species), cf. question 4.2.

The Act on Environmental Assessment of Plans and Programmes (EA Act)[22] implements the EU SEA Directive into Danish legislation. The Environmental Assessment Act applies to plans and programmes across different sectors and pieces of legislation, including plans for onshore as well as offshore activities.

Before establishing a wind turbine project, the developer must submit a written application for a decision on a screening or an Environmental Impact Assessment (EIA) cf. 19 of the EA Act.

It is necessary to perform an Environmental Impact Assessment (EIA) if the project is expected to have essential environmental impact. So far, it has been necessary to perform an EIA for all the existing Danish offshore wind farms[23].

[22] Miljøvurderingsloven (retsinformation.dk)

[23] Procedures and Permits for Offshore Wind Parks | Energistyrelsen (ens.dk)

The developer may not begin the project until a) the environmental assessment authority has estimated that the project does not expect to have essential environmental impact, cf. section 16 of the EA Act or b) the environmental assessment authority has completed the entire EIA process and granted an EIA permit.

The Executive Order on Environmental Assessment[24] states how the application is made and to which authority it must be sent.

For more information: Miljøvurdering af planer og programmer (mst.dk)

4.2 Please provide information on other applicable legal requirements relating to the effects wind energy projects can have on their environment, such as specific provisions in relation to wildlife protection (in sea or at land), noise pollution or visual pollution.

Natura 2000, Annex IV species and birds

The EU Habitats Directive sets up specific requirements for the protection of the so-called Natura 2000 areas and Annex IV species. As regards birds, the EU Birds Directive also lays down a general prohibition against the deliberate killing or disturbance of birds particularly during the period of breeding or rearing. These rules must be taken into consideration when planning for wind energy projects onshore as well as offshore.

If the authority estimates that a project may have significant impact on such a habitat area, a habitat impact assessment must be prepared. A habitat impact assessment will typically be part of the EIA report. The Natura 2000 assessment requirements are incorporated into Executive Order 2091/2021[25] and the RE Act (especially sections 27-28).

The Habitats Directive also requires a strict protection of certain species outside Natura 2000 areas – the so-called Annex IV species, including bats. In Denmark, a general prohibition has been incorporated into the Nature Protection Act[26], section 29a; this rule applies to onshore as well as offshore activities ("bilag 3 arter").

Furthermore, Executive Order 2091/2021 stipulates that a plan or a permit may be issued if it will lead to the deterioration or destruction of breeding sites or resting places – this rule applies to plans and permits for onshore turbines. For nearshore and offshore turbines, similar rules are laid down in Executive Order 1476/2010[27] for permits granted under the RE Act, section 22 or 25.

Noise requirements:

Noise from wind turbines is in Denmark primarily regulated under public law as opposed to private law, e.g. nuisance or neighbour law.

[24] Miljøvurderingsbekendtgørelsen (retsinformation.dk)

[25] Habitatbekendtgørelsen (retsinformation.dk)

[26] Naturbeskyttelsesloven (retsinformation.dk)

[27] Bekendtgørelse om konsekvensvurdering vedrørende internationale naturbeskyttelsesområder samt beskyttelse af visse arter ved projekter om etablering m.v. af elproduktionsanlæg og elforsyningsnet på havet (retsinformation.dk)

The Environmental Protection Act provides a legal basis for setting noise standards for wind turbines in Executive Order 135/2019[28]. In addition to the general noise standards, individual noise standards may be set in an EIA permit for onshore turbines or in a permit for establishment of offshore turbines, cf. section 25 of the RE Act.

- Støj fra vindmøller (mst.dk)
- Vindmøllers miljøpåvirkning | Energistyrelsen (ens.dk)
- Vindmøller (mst.dk)

4.3 If applicable, describe other environmental or social requirements or obligations applicable to wind energy projects, distinguishing onshore and offshore wind power projects if relevant.

N/A

4.4 How can the public participate in wind energy projects and their development? At what stages can the public raise their concerns, if any, and under what circumstances?

According to section 9 of the RE Act a developer of a RE facility, cf. section 6 (1) (i.e. on- and offshore wind project after the open-door-process), must hold a public meeting for neighbours and others. At this public meeting, the RE developer must explain the consequences of the wind energy project for the surrounding residential properties. The Minister of Climate, Energy and Utilities (in practice, the Danish Energy Agency) must also account for the possibilities of compensation, cf. question 5.2.

Section 9 (2) of the RE Act sets different deadlines for this meeting. In case of a wind turbine that requires an EIA permit, the meeting must be held during the consultation period and within 4 weeks before the expiry of the consultation deadline for the environmental impact report.

5. PROPERTY ISSUES

5.1 Provide general information on access to land of a third party. Is there a requirement to seek consent of a landowner in the application process of a wind energy project?

Expropriation, takeover, etc. are regulated in part 11 of the Planning Act.

Besides part 11 of the Planning Act, see the guidance about the regulation by the Danish Business Authority (Link: vejledning_ekspropriation_efter_planloven.pdf (erhvervsstyrelsen.dk)) and report no. 1569 from 2018 (Link: 06-12-ekspropriationsudvalgets_betaenkning_webversion.pdf (em.dk)).

5.2 How would the landowner be compensated for the use of land? Would he be entitled to any further payments during the lifetime of a wind energy project?

The use of land for wind turbines will in general be based on a land lease on commercial terms.

[28] Vindmøllebekendtgørelsen (retsinformation.dk)

The Renewable Energy Act contains five policy measures that are specifically aimed at enhancing local acceptance of wind turbine projects. The schemes are regulated by part 2 of the RE Act and are administered by the Danish Energy Agency.

The five schemes include:

- The impairment scheme which obligates the developer of a renewable energy facility to pay for a loss of value on residential properties caused by renewable energy facilities.

- The sales option scheme which obligates an RE developer to offer a sale option of residential properties where there is a loss of value of more than 1 percent.

- The RE bonus scheme which gives the closest neighbours to the RE plant the right to receive an annual bonus, which is based on the plant's production.

- The green scheme that obligates the RE builders to pay a lump sum to the municipality in which the plant is set up.

For more details see: Fremme af vindmøller | Energistyrelsen (ens.dk)

5.3 What are the rights of landowners of private land? Can they delay or even prevent development of wind energy projects on his or her land?

It is possible for a landowner of private land to appeal the municipality's decision on expropriation, cf. sections 58 and 59 of the Planning Act. This could delay and even prevent the development of a wind energy project on his or her land.

5.4 Briefly describe the zoning and planning process of wind energy projects. What are the roles of the landowner, the developers, third parties, government agencies or municipalities? Please provide information on the timing and cost of gathering and maintaining the necessary zoning and planning permits.

Regarding the zoning and planning process please see reply to question 3.1.

It is not possible to provide general information on the timing and cost of gathering and maintaining the necessary zoning and planning permits since this will differ from case to case.

5.5 What rules apply to the use of wind energy for electricity production in territorial waters and the exclusive economic zone of your jurisdiction? Has your government made a statement or issued a policy regarding the harnessing of wind energy in territorial waters or the exclusive economic zone?

The Electricity Supply Act and the RE Act apply in territorial waters and in the exclusive economic zone, cf. section 2 (2) of the Electricity Supply Act and section 3 (1) of the RE Act.

5.6 Are there any other aspects of your local legislation connected with the use of land or other property related matters you would like to add.

No.

6. GRID CONNECTION

6.1 Briefly describe how wind energy farms are connected to the grid. Is there a requirement to connect wind farms to the grid and who is responsible for the connection and the cost of connecting the project to the grid?

According to section 30 of the RE Act, the Minister for Climate, Energy & Utilities may lay down more detailed regulations on the connection of wind turbines to the electricity supply grid. The Executive Order on grid connection[29] of wind turbines etc. has been issued under section 30 of the RE Act.

If the general conditions for grid connection are met, the DSO is obliged to connect wind farms to the grid, cf. section 2 (2) of the Executive Order.

The cost of connecting the project to the grid is regulated in chapter 2 of the Executive Order. For new projects the connection cost must be covered by the owner of the wind farm.

6.2 Briefly describe grid connection and electricity transfer for offshore wind energy projects.

The Executive Order on grid connection[30] of wind turbines etc. applies to onshore and offshore wind projects (except for offshore wind turbines which have been established by the tender procedure).

The process for grid connection and electricity transfer is also described in detail in a number of guides depending on the plant size and whether to connect to the distribution network or the transmission network. See for example these guides:

- Regler for nettilslutning af nye anlæg | Energinet
- Nettilslutning | Dansk Energi
- Energistyrelsen – Opdateret vejledning til regler om nettilslutning af VE-anlæg – 2021-07-05 (ens.dk)

7. REVENUES FOR THE STATE AND INCENTIVES

7.1 Please provide information on the fees payable during the application and permission process of wind energy projects, including application fees, other fees payable as a part of the application process and fees necessary to maintain a license or operations.

License and permit holders must according to section § 51a of the Electricity Supply Act and Executive Order on payment for official processing by the Danish Energy Agency https://www.retsinformation.dk/eli/lta/2021/1460 pay the costs of the authorities processing associated with the licences and permits.

[29]Bekendtgørelse om nettilslutning af vindmøller, solcelleanlæg, bølgekraftanlæg og vandkraftværker (retsinformation.dk)

[30]Bekendtgørelse om nettilslutning af vindmøller, solcelleanlæg, bølgekraftanlæg og vandkraftværker (retsinformation.dk)

7.2 How does taxation in the sector work and what taxes are payable by the owner or operator of a wind farm? Please describe and provide information on the applicable tax rate and resource tax.

The taxation in the sector follows the general Danish taxation rules applying to commercial companies.

7.3 What other revenue (including resource fees, if applicable) is payable to the state or the municipality in terms of the operation of wind turbines? Who benefits from the payment of property fees or other similar fees?

There are currently none.

7.4 Does the government receive lease payments, or other similar payments, for wind turbines build on state owned land?

A lease of a state-owned land for the purpose of establishing wind turbines (as for any other purpose) will in general be made on regular commercial terms.

7.5 Other information on state or municipality revenue you would like to add.

No.

8. TYPE OF LITIGATION RELATED TO WIND POWER PROJECTS

8.1 Please describe the process of disputes related to the development of wind energy projects. What are the local or administrative appeal routes available for those who disapprove of a prospected project and at what time shall they raise their concerns? Does the legislative framework encourage third parties or the general population to participate in disputes?

There are several processes for appeal of a prospected wind energy project depending on which governmental or administrative body that has processed the given decision:

Decisions made by the Danish Energy Agency or the Danish Utility Regulator can be appealed to the Energy Appeals Board by parties which have an individual interest in the decision. The concerned party shall submit the appeal within 4 weeks of the announcement of the decision. It will not be possible to bring the appeal before a court of law before the Energy Appeals Board have processed the appeal.

Decisions made by the municipalities on spatial planning and environmental issues can in general be appealed to the Plan Appeals Board or the Environment and Food Complaints Board. Appeals to these bodies must in general be submitted within 4 weeks of the announcement of the decision.

Dispensations granted by the Danish Environmental Protection Agency can be appealed to the Environment and Food Complaints Board often within 4 weeks of the announcement of the decision.

Dispensations granted by the Danish Coastal Authority can be appealed to the Environment and Food Complaints Board often within 4 weeks of the announcement of the decision.

Common to all of the above are that after the relevant appeal board have announced their decision on the appeal it will be possible within 6 months from the decision of the appeal to take the appeal decision before a court of law.

8.2 Are there special litigation proceedings available in your jurisdiction in relation to wind power projects?

Wind power projects follow the normal litigation proceedings, thus there are no special litigation proceedings available in our jurisdiction.

8.3 Is the development or operation of wind power projects often disputed, by either the public or other entities?

Please see reply to question 9.1

8.4 Do the same courts have jurisdiction in litigation relating to onshore and offshore projects?

The same courts have jurisdiction in litigation relating to both onshore and offshore wind power projects.

9. DIFFICULTIES ENCOUNTERED IN THE DEVELOPMENT OF WIND POWER PROJECTS (LACK OF SOCIAL ACCEPTANCE, ACCIDENTS, INEFFICIENT SUPPORT MECHANISM, STATE AID ISSUES ETC).

9.1 Briefly describe historical difficulties encountered in the development of wind projects in your jurisdiction and the current standing of future development of wind energy project.

[*This could include, for example, lack of social acceptance or governmental support. Please describe briefly current public opinion on further development of wind farms. Is there a public acceptance and does in vary between onshore and offshore wind farming?]*

In general, there has been, and still is, a resistance in the public eye against onshore wind farms. Mostly reasoned in visual intrusion, noise and the risk of loss of value for their property for homeowners close to the projected wind farm. Even though this is penetrating in the public debate, there have not been a particular high number of appeals in the different municipalities according to a study from 2017[31]. The study shows that after the onshore wind farms have been established the majority affected by the wind farms does not experience any difficulties. But in more recent years there have been a rise in appeals.

9.2 Are current support mechanisms sufficiently supportive of the development of wind energy in your jurisdiction, as of today? Has there been a call for changes or updates to

[31] Hvordan-lever-danskerne-med-vindmoeller-på-land.pdf (videnomvind.dk)

the support mechanisms framework to better support developers or electricity producers?

[A brief description of the support mechanism would be helpful, where applicable, to understand the support mechanism structure.]

There are a number of different subsidy schemes in place for existing onshore and offshore wind farms.

Support for new projects (both onshore and offshore) are granted based on tendering procedures. The latest tendering processes have shown that there is currently no need for subsidies for neither onshore nor offshore wind farms

9.3 Have there been any state aid related issues in your jurisdiction in respect of wind energy projects?

State aid for wind energy projects has been drastically decreasing the latest years while the establishment of wind energy projects is rising. Development of wind power projects in Denmark is becoming much more price competitive and the need for state aid is therefore diminishing. E.g., Thor offshore wind farm ("Thor Havvindmøllepark") which so far is Denmark's biggest offshore wind farm, is the first winner of an offshore tender without any state aid.

9.4 Are any litigation cases or proceedings currently taking place that could affect the future of wind energy in your jurisdiction?

No, on the contrary wind energy projects is rising and the future for wind power supply is looking very bright. Though it must be said that there are some reluctances from the affected public regarding onshore wind power projects.

9.5 Any other information or clarification you would like to make in relation to the harnessing of wind energy in your jurisdiction?

No.

VIÐAUKI 3. NOREGUR – SVÖR VIÐ SPURNINGALISTA

10. STATISTICAL INFORMATION

Total installed capacity of electricity production (GWh)	Installed capacity: approx75. 38 700 MW Annul production: Approx. 157 000 GWh (2021)
Proportion of electricity produced from renewable energy resources (% of GWh)	95 %
Installed capacity of electricity produced from wind energy (GWh), distinguishing onshore and offshore wind power capacities.	Onshore: 11800 GWh Offshore: N/A
Proportion of electricity produced from wind energy of total installed capacity (% of GWh), distinguishing onshore and offshore wind power capacities.	Onshore wind: 7.5 % No offshore wind as of today
What year did production of electricity from wind energy begin in your jurisdiction?	1992
Number of wind turbines currently in operation, distinguishing onshore and offshore facilities	Onshore: 1298 Offshore: N/A
Expected growth of electricity production from wind energy in the next 5 years in GWh, distinguishing onshore and offshore facilities	Onshore: 2200 GWh Offshore: 385 GWh

11. INSTITUTIONAL, REGULATION AND ADMINISTRATIVE MATTERS

11.1 Is there a governmental policy in place, or any kind government framework, concerning the harnessing of wind energy in your jurisdiction? If so, briefly describe the object of the government policy and main provisions.

Onshore wind projects are regulated by the Energy Act of 1990.

Licences are needed for the construction, ownership and operation of all high-voltage installations, including generation. Government policy is set out in regular white papers to the Parliament. The latest comprehensive white paper was issued in June 2021. Following the change of government in the fall of 2021, the new centre-left cabinet presented its supplement white paper in April 2022.

Offshore wind projects are regulated by the Ocean Energy Act of 2010. Licences are required for the construction, ownership and operation of all high-voltage installations, including generation. The framework for offshore wind project is currently under development, and the government aims to allocate areas for 30,000 MW of offshore wind production in Norway by 2040.

11.2 Please provide a list of applicable legislation and regulations governing the use of wind energy for electricity production, distinguishing onshore and offshore wind power projects if relevant.

We kindly ask you to provide a link to an online version of the applicable legislation and where and if applicable, a reference to the applicable chapter and/or articles (where only specific provisions of the Act apply to wind energy projects).

Onshore	The Energy Act of 1990	Link (unofficial English translation)
	The Expropriation Act of 1959	Link (no available English translation)
	The Planning and Building Act of 1985	Link (unofficial English translation)
	The Energy Regulation of 1990	Link (no available English translation)
	Regulations on Impact Assessment of 2017	Link (unofficial English translation)
	The Cultural Heritage Act of 1978	Link (unofficial English translation)
	The Pollution Control Act of 1981	Link (unofficial English translation)
	The Nature Diversity Act of 2009	Link (unofficial English translation)
Offshore	The Offshore Energy act	Link (no available English translation)
	The Offshore Energy Regulations	Link (unofficial English translation)

11.3 Identify the governmental and administrative bodies connected to wind energy projects and briefly explain their role and activities. We kindly ask you to provide a link to the website of the applicable entity, where applicable.

Please see description of different governmental entities' involvement in question 3.1 and 3.2.

LIST OF INVOLVED GOVERNMENTAL AND ADMINISTRATIVE ENTITIES

The Norwegian Water Resources and Energy Directorate (NVE)	Link to NVE
The Ministry of Petroleum and Energy (MPE)	Link to the MPE
The Ministry of Climate and Environment	Link to the Ministry of Climate and Environment
Norwegian municipalities and their councils	

11.4 Please provide information on the involvement of other private entities, to the extent possible.

Private entities must take the initial steps to realize their planned wind power project. Consulting companies can be engaged to carry out the initial planning and assessments. Please see question 3.1 below to see the involvement of private entities.

11.5 Has the government and/or local municipalities pre-defined areas where wind energy can be harnessed, at sea or on land? Please describe the decision making behind the location of a wind energy project. Is there a framework in place governing possible locations of wind farms? What role due municipalities have in terms of allowing or limiting use of land?

A proposal of the 13 most suitable areas in Norway for development of onshore wind energy was published by NVE in March 2019. The government decided to not go forward with the proposal, and as of today no areas are pre-defined for onshore wind energy. The wind energy companies decide which area they want to apply for a licence to build and operate a wind power plant.

11.6 In terms of offshore windfarms, have special areas been defined by the government and/or municipalities for future projects? If applicable, briefly describe how those areas were nominated. Can offshore wind farming be established outside of areas previously highlighted by the government?

The nomination process started when the Ocean Energy Act was adopted and NVE prepared a proposal for potential areas for development of offshore wind. An impact assessment was prepared in 2013 and 15 areas were investigated for conflicts with other interests. In 2018, NVE recommended to open Utsira Nord and Sørlige Nordsjø II, and the areas were opened in 2020 for offshore renewable energy production. Utsira Nord is well suited for floating production facilities, whereas Sørlige Nordsjø II is mainly suited for fixed installations.

11.7 Does the government call for tenders for wind energy projects? If so, briefly describe the tendering procedure. Can a developer, on his own initiative, reach out to the government or municipality and ask to develop a wind energy projects on a certain area of land or sea?

No tender procedures are used by the Norwegian Government for onshore wind energy. Private developers must on their own initiative send a notification to NVE and to provide information about their wind energy project plans and a contemporary evaluation on the possible effects of the surroundings where the project is planned. After such notification is submitted, the developer can apply for a licence.

The government announced in February 2022 their plans to implement phase one of wind power production in the area of Sørlige Nordsjø II and that auction shall be the main model for allocating seabed. A system of prequalification in relation to the auction model is currently under development. The areas of Utsira Nord will be allocated based on qualitative criteria and not an auction model. See question 3.1 for more information about the allocation process.

12. PERMITTING, LICENSES AND APPLICATIONS

12.1 Please provide a general description of the licensing procedure for wind energy projects (distinguishing onshore and offshore wind power projects if relevant) as well as a list of the licenses required, from possible exploration throughout the lifetime of a project.

Onshore wind energy	
***Phase 1** – notification*	The government must be notified about the company's plans of building a wind power plant on an early stage of the process. Such notification must be made to inform affected parties of the project. The notification must contain information about the planned wind energy project and how it will affect the area. A wind energy project with installed capacity of more than 10 MW requires an impact assessment. The main purpose of the notification phase is therefore to establish an impact assessment programme describing which subjects that should be investigated. NVE will send the notification for consultation with a deadline of 6 weeks and will arrange a public meeting to discuss the notification.

Phase 2 – *investigation phase*	The investigation phase is regulated by the rules of the Planning and Building Act for impact assessment. Subject to the project owner's application for license, they must ensure that the impact assessment meets the requirements of the assessment programme. The project owner is responsible to meet the requirements of the assessment programme and is free to choose a person or a company to carry out the impact assessment. Most applicants choose to use one or more consulting companies to investigate the impact on environment and the societal interest. It is required in the assessment programme that the project owner shall establish a consultation group and conduct at least three meetings during the investigation phase. Such consulting groups usually consists of host municipalities, affected landowners and the most important affected local organisations. Wind power project with installed capacity below 10 MW can apply for license without an impact assessment. The project's impact on the surroundings must be sufficiently informed in the application.

Phase 3 – *application phas*	The application phase starts as soon as NVE has received a license application with the impact assessment. This phase is regulated by the Energy Act. The application must contain the necessary information to assess whether licence should be granted, and what condition, if any, should be set. The Energy Regulation sets out the information the application must, as a minimum, contain: - Technical and economic description of the facility, including the physical performance of the facilities and any auxiliary facilities that such as roads, etc. - Scheduled time for the commencement and completion of the facility, - The fitting of the wind power plant in the municipal or county municipal energy plan, - Statement of the architectural adaption with necessary drawings and map data, - Impact on public interests and possible mitigation measures, - The result of potential impact assessments, - Impact on private interests, including those of landowners and other license interests, - The need for permits pursuant to other laws, including the relationship with the host municipal plans in accordance with the Planning and Building Act.
Expropriation and pre-accession	NVE can process applications concerning expropriation in connection with establishment of wind power plants. The project owner can apply for expropriation if an amicable solution with the landowner cannot be reached. Consent for expropriation can be given by the NVE if this entails more benefits than harm.
Public hearing of the application and objections	NVE evaluates the licence application and the impact assessment before it is sent to public hearing. In the public

	hearing, NVE asks for input on if the consequences have been adequately investigated, if licence should be granted, and what conditions should be set in the licence. Locals and regional governments are invited to a meeting, and NVE arranges an open meeting for the inhabitants and others with interest in the wind power project. The application and the impact assessment are submitted directly for public hearing to the municipal, county municipality, other affected local, regional, and state authorities, the county governor, special interest organisations, landowners and other actors with interests that may be affected by the project. The deadline for the public hearing is at least six weeks, and after the deadline, NVE sends all statements to the project owner with a deadline to comment back. The affected municipality, county municipality or state authority can object to the project, if the license application conflict with national or important regional interests. If objections have been set forth, NVE must arrange at least one meeting with the objecting party.
NVE's decision	When NVE have decided that the applicant have provided sufficient information, a licencing decision shall be made. The grant of licences must be based on objective, no discriminative and transparent criteria. This means that the benefits must be greater than damages and disadvantages for public and private interests. The benefits emphasised in wind power cases are typically related to renewable power generation, increased supply security and local value creation. The disadvantages can be several different aspects, such as effects on the neighbours, biodiversity, cultural heritage, reindeer husbandry etc. Based on a comprehensive assessment of the case, the NVE decides whether the project owner shall be granted a license, and on what conditions the licence shall be granted.
Procedure of complaints	NVE carries out an initial assessment of any duly filed complaints. Complaints that are not accepted by NVE are sent to MPE for assessment. The decision of MPE is final and cannot be overruled. Ordinary courts can only review the validity of the licence decision.

Phase 4 – *detail planning phase*	The licence specifies several conditions, such as maximum installed effect and the outer limits of the area planned for development. Changes of conditions in the licence or outside the planned area must be applied for to NVE. The development solution for the wind power plant is normally not specified in the license. The final design of the wind energy facility, including the number, height, type and location of wind turbines, shall normally be in accordance with the terms of the license and described in a detailed plan. The licensee must also develop a plan for environment, transportation and facilities describing how environmental interest shall be protected in the building of the wind power plant. Both plans must be submitted to NVE for approval. Subject to approval, the plans must be consulted by the municipality, county municipality, the county governor, other affected authorities, affected organisations and private persons. Any complaints of NVE's approval of such plans will be sent to MEP in accordance with the same procedure as described above in phase 3.
Phase 5 – *development phase*	Development can start when NVE has approved both plans. The licensee must also obtain other necessary licenses as listed in question 3.3 below to start the project. Several inspections are carried out by NVE during the development phase.
Phase 6 – *the operational phase*	The licensee is responsible to operate the wind power plant in accordance with the conditions in the license as described in question 3.4. If breach of the licence conditions occurs, NVE will follow up with sanctions and other preventive measures.
Phase 7 – *the decommissioning phase*	Every license contains a requirement for the licensee to reverse the area at the end of the license period. During the twelfth year of operation, the licensee shall guarantee of the costs relating to decommissioning of the facilities, and a reversal plan must be submitted.

The licencing process for offshore wind energy	
General	The procedure for the licencing process of offshore wind has not been established in detail, as the MPE's guidelines for the process is still under consultation and has not been adopted. Below is a description of the procedure in the proposed guidelines.
Phase 1 – *announcement*	The MPE is announcing one or more areas within an open area. The call for proposals will be an invitation to participate in a competition for exclusive rights to develop a project within an area.
Phase 2 – *Prequalification*	If it is a prequalification process, the applicants must prequalify in accordance with the requirements of the Ocean Energy Act and Ocean Energy Regulation to participate in the competition. The purpose of the prequalification is to ensure that the participant in the competitions meets the necessary requirements and has satisfactory competence. The MPE decides who is prequalified based on the documentation presented.
Phase 3 – *Allocation of areas through action/competition*	The allocation of the specific area will take place through a competition. The competition will mainly be carried out as an auction. A qualitative competition can be carried out instead if the state has other objectives for the development of offshore wind, e.g., development of technology.
Phase 4 *– investigation program*	After a project owner has been allocated the area, a notification with a proposed investigation program must be submitted within 6 weeks from the allocation.
Phase 5 – *application for licence.*	The project owner must apply the MPE for licence within 2 years after the investigation program has been established. An investigation assessment must also be submitted.
Phase 6 – *detailed plan*	If licence is granted by the MPE, the project owner must submit a detailed plan to NVE within two years after the licence decision.

12.2 Please provide a description of each license required, documents to be submitted and the general criteria for obtaining a license. Please include information on the duration of each type of license.

Required licences and permissions for development of onshore wind power projects		
Type of licence and relevant act	**Duration**	**General criteria for obtaining the licence**
Licence to build, own or operate an installation generating electrical power pursuant to the Energy Act section 3-1	Depends on the license and maximum for 30 years	See question 2.1 above
Permit to advance possession pursuant to the Expropriation Act section 25	Permanent permission	The application must contain information about who is affected by the expropriation, specification of the property affected, the expropriation purpose and scope, and the disadvantages that will incur on the affected property.
Permit to expropriate land and rights pursuant to the Expropriation Act section 2 subsection 19	Permanent permission	The application must contain information about who is affected by the expropriation, specification of the property affected, the expropriation purpose and scope and the disadvantages that will incur on the affected property.

Required licenses and permissions for development of offshore power wind		
Type of licence and relevant act	***Duration***	***General criteria for obtaining the licence***
Licence to build, own and operate an installation generating electrical power pursuant to the Ocean Energy Act section 3-1	Depends on the licence	The applicant must submit a detailed plan for development and operation of the production facility. The detailed plan must contain the technical, safety and environmental aspects of the production facility. In addition, an impact assessment must be submitted.

Licence to build, own and operate a grid pursuant to the Ocean Energy Act section 3-2	Depends on the license	The applicant must submit a detailed plan for development and operation of the grid. The detailed plan must contain the technical, safety and environmental aspects of the grid. In addition, an impact assessment must be submitted.
Permission to place the interconnector near roads pursuant to the Roads Act section 32	Depends on the permission	The application for a permit must state the plans, including necessary maps and descriptions of the planned work. The application must also include the name of the wire owner, the contact person of the wire owner and the name of any executing contractor. The wire owner must provide the name of the contact person who can also be contracted outside normal working hours. The cable owner must obtain permission from the Norwegian Public Road Administration before the work can start.
Permit to work and install pursuant to the Port- and Waters Act section 14	Depends on the permission	No available information about the necessary documentation to be submitted with the application.
Permit to lay down the interconnector pursuant to the Pollution Regulation section 22-6	Depends on the permission	The permission application for placement of an interconnector shall contain the information necessary to assess whether permission should be granted and what conditions shall be set, including information about the material to be placed and about the conditions at the dredge and/or dumping site.
Licence to export and import electrical power to a foreign state pursuant to the Ocean Energy Act section 8-1	Depends on the permission	No available information about the necessary documentation to be submitted with the application.

Required licences and permissions for development of onshore and offshore wind power projects		
Type of licence and relevant act	***Duration***	***General criteria for obtaining the licence and documents that must be submitted***
Permit to get dispensation from protection of landscape pursuant to the Nature Diversity Act section 48	Permanent permission	An application for exemption shall contain necessary documentation of the impact the project will have on the heritage value.
Permit to get dispensation from protection of cultural heritage pursuant to the Cultural Heritage Act section 8 or 15a	Depends on the permission	The applicant must provide documentation sufficient for the authorities to understand the scope and consequences of the measure, especially relating to material interventions, changes and workmanship.

12.3 Are there any pre-emptive rights secured within the licensing framework, such as a pre-emptive right to move over from a feasibility phase to a utilisation phase. Does a license automatically convert into a different type of license?

The Energy Act and the Ocean Energy Act does not contain any rules concerning pre-emptive rights.

12.4 Briefly describe the encumbrances in place for the license holder to keep a license, once granted.

The onshore wind energy licences always include a requirement that the plant wind power plant must be completed and put into operation within a deadline. NVE has previously accepted applications for postponement for such operation deadlines. Because of strong political signals from the Government, NVE has stopped approving applications for postponed deadlines and the licence automatically lapses if the wind power plant is not in operation by the time of the deadline.

In addition to this condition, the licensee is required to comply with the other conditions in the licence relating to:

- The detailed plan
- Management, contact person and website with information
- Application to separate ownership and operation of the wind power plant
- NVE's right to revise or revoke the licence

- Use of access roads and internal roads
- Available grid capacity and specification of the electricity facility
- The appearance and surface of the wind turbines and other technical requirements relating to the building of the wind power plant
- Wind measurement reports
- Inspection program for safe operations of the wind power plant
- Icing and ice throwing
- Plan for decommissioning and reversal of the landscape, including a proposal for financial guarantee for such costs
- Electronical communication
- The Defence and aviation

If violations of the licence conditions occur, the licencing authority has the right to revoke the licence. See question 3.5 below for more information.

12.5 What actions of the license holder would warrant a revision of the license? Does the license granting authority have the power to revoke or terminate a license during the term of the license? If yes, what actions of the license holder would warrant a revisions or termination of the license.

The licence authority has the competence to revise or revoke the licence. Pursuant to the Energy Act, the authorities have the right to revise the requirements or conditions in a licence if changes of circumstances has occurred since the licence decision. However, the threshold for such revision of the license is high.

Violation of conditions may, pursuant to the Energy Act, result in revocation of the licence. However, the licencing authority must assess how serious the breach of the condition is, how important it is that the condition is met, the adverse effect of the condition not being met and the consequences of revocation of the license for the licensee. This assessment must be based on general principles of administrative law concerning factuality and proportionality, and a special decision must be made regarding the revocation of the licence. The licensee can submit complaints on a revocation of a licence.

13. ENVIRONMENTAL ISSUES

13.1 Briefly describe how environmental impact assessments, or other environmental requirements, affect the development of wind energy projects. Under what circumstances

and at what stage of the project is there a requirement to perform a formal environmental impact assessment?

The project owner must perform an environmental impact assessment before applying for licence. Such assessment must be made in the investigation phase. An impact assessment is only required for wind energy projects above 10 MW. The application for wind energy projects below 10 MW must contain a description of the project's impact on the surroundings.

13.2 Please provide information on other applicable legal requirements relating to the effects wind energy projects can have on their environment, such as specific provisions in relation to wildlife protection (in sea or at land), noise pollution or visual pollution.

In the assessment whether to grant a licence for development of onshore or offshore wind energy, the Nature Diversity Act requires that NVE or the MPE assesses the licence's cumulative environmental effects on the ecosystem. In addition, the decision must be based on a scientific knowledge of the population status of species, the range and ecological status of habitat types, and the impact of environmental pressure.

Noise pollution from wind turbines is covered by the Pollution Control Act that stipulates a general prohibition against pollution, including releasing noise. Subject to the Pollution Act, the municipality can grant wind energy enterprises an emission permission for noise pollution from wind turbines. Noise pollution may also be covered by restrictions in the Neighbours Act, the Planning and Building Act, the Public Health Act and the Nature Diversity Act. These acts also have restrictions concerning light pollution.

13.3 If applicable, describe other environmental or social requirements or obligations applicable to wind energy projects, distinguishing onshore and offshore wind power projects if relevant.

The relevant applicable environmental and social requirements and obligations are described in question 3.3 and 4.2 above.

13.4 How can the public participate in wind energy projects and their development? At what stages can the public raise their concerns, if any, and under what circumstances?

NVE publishes the licence application and impact assessment on their website and for public hearing by the host municipality. In addition, it is sent directly to affected landowners, private individuals, and special interest organisations. Input is requested as to whether licence should be granted and, if so, on what terms.

An open meeting is arranged for the locals and others with interest in the upcoming decision. An inspection of the relevant area is also held for everyone who has submitted written input to the application. After the inspection, the participants usually have a two-week deadline to provide input.

Private individuals can also have a legal interest of submitting complaints on NVE's decision of awarding licence or approval of the detail plan, see question 8.1 below.

14. PROPERTY ISSUES

14.1 Provide general information on access to land of a third party. Is there a requirement to seek consent of a landowner in the application process of a wind energy project?

The project owner must try to enter into an agreement relating to ground lease, rent or purchase of the property with the landowner. If a voluntary agreement with the landowner cannot be reached, an application for expropriation of the specific area can be applied for to NVE. Expropriation can only be consented to if the measure is doubtless of more benefit than harm.

If NVE consents to expropriation, the parties can enter into a voluntary agreement regulating the compensation the project owner shall pay to the landowner or the person who loses a right in favour of the wind energy project. If the parties cannot agree, the court can decide the compensation by discretion.

The development of the wind power project can start before the compensation is decided by the court, if necessary, required by an application from the project owner to NVE for permission to start work before the discretion is completed.

14.2 How would the landowner be compensated for the use of land? Would he be entitled to any further payments during the lifetime of a wind energy project?

The parties are free to decide in an agreement whether the compensation should be paid as a lump sum or several payments throughout the life of the project. If the parties cannot agree on the compensation for the expropriation, the court will set a lump sum as compensation.

14.3 What are the rights of landowners of private land? Can they delay or even prevent development of wind energy projects on his or her land?

Landowners can delay the development of wind power by not entering into an agreement with the wind energy developer, submit complaints on NVE's expropriation decision and require the validity of the licence decision to be reviewed by the court. If the expropriation decision is lawful, the landowner cannot prevent development of wind power plants.

14.4 Briefly describe the zoning and planning process of wind energy projects. What are the roles of the landowner, the developers, third parties, government agencies or municipalities? Please provide information on the timing and cost of gathering and maintaining the necessary zoning and planning permits.

The municipalities can facilitate new wind power plants through general planning processes as they are subject to the Planning and Building Act. The licensee needs a dispensation from or a change of the municipal master plan to develop a wind power plant. The advantages of granting dispensation must clearly outweigh the disadvantages based on an overall assessment.

If a dispensation or a change of such plan is not obtained, a licence pursuant to the Energy Act or the Ocean Energy Act can be granted the status of a state zoning plan. Licence adopted as a state zoning plan sets aside a municipal master plan. Even if a licence sets aside a

municipal master plan, the government decided in the white paper published in April 2022 that the licencing process for wind power plants can only be opened if the host municipalities consents. The municipalities therefore have the veto power against new onshore wind power projects.

The requirement of developing a zoning plan does not apply to wind power plants, but can be prepared voluntarily by the municipality. It is voluntary because it is the licence pursuant to the Energy Act or the Ocean Energy Act that shall govern permits for development of wind power plants. The municipalities can develop a zoning plan to signalise their view on potential wind power plants. NVE may emphasise this in the development of the plan relating to environment, transportation and facilities during the detail planning phase.

14.5 What rules apply to the use of wind energy for electricity production in territorial waters and the exclusive economic zone of your jurisdiction? Has your government made a statement or issued a policy regarding the harnessing of wind energy in territorial waters or the exclusive economic zone?

The Ocean Energy Act applies on the Norwegian sea territory and the continental shelf with the exceptions imposed by international public law. The MPE can decide whether the regulations in the Ocean Energy Act shall apply on the economic zone, and such decision has not yet been made.

15. GRID CONNECTION

15.1 Briefly describe how wind energy farms are connected to the grid. Is there a requirement to connect wind farms to the grid and who is responsible for the connection and the cost of connecting the project to the grid?

Grid companies are at the outset required to ensure that energy producers within their grid area can connect to their grid (anyone planning new or increased power production must clarify capacity conditions in existing grids with the grid companies before applying for a licence). The grid company must assess whether it is operationally safe to provide connection in its existing grid. If it is not operationally safe to provide connection to new production facilities, the grid company is obliged to investigate, apply for licence, and carry out necessary investments in the grids so that connection is possible. If an onshore wind power plant wants to connect to a grid without sufficient capacity, the grid owner shall charge the wind plant owner with construction contribution to cover parts of the investment costs.

15.2 Briefly describe grid connection and electricity transfer for offshore wind energy projects.

Based on recent political signals, electricity produced by offshore wind will initially be connected to the Norwegian electricity grid through radials and sold in the Norwegian electricity market. The wind plant owner must apply to NVE, subject to the Ocean Energy Act, to obtain licence to build and operate a radial. The radials will be planned, built and financed by the offshore wind power plant owner. The obligation of distribution grid companies to ensure connection to production facilities is also applicable for offshore wind facilities.

The government has so far not opened for use of interconnectors/hybrid connections. The development such – more complex – grid structures, and a development towards a meshed grid offshore is currently under discussions. As of today, applications for development of interconnectors will not be approved by the MPE.

16. REVENUES FOR THE STATE AND INCENTIVES

16.1 Please provide information on the fees payable during the application and permission process of wind energy projects, including application fees, other fees payable as a part of the application process and fees necessary to maintain a license or operations.

Pursuant to the Ocean Energy Regulation, a processing fee shall be paid to NVE if it is decided to start processing of the offshore wind energy licence. Processing of the application will not start until the payment of NOK 100,000 is received.

16.2 How does taxation in the sector work and what taxes are payable by the owner or operator of a wind farm? Please describe and provide information on the applicable tax rate and resource tax.

According to the general rules of the Norwegian General Tax Act ("GTA"), income from onshore as well as offshore wind energy farms will be taxable income for companies domiciled in Norway for tax purposes. All categories of income are subject to a flat income tax at 22%. This is referred to as tax on ordinary income and applies to both corporate and individual taxpayers. It is levied on a net basis; costs which are incurred to generate taxable income are deductible in the basis for ordinary income tax.

Non-resident companies are taxable to Norway on income from business operations which are either conducted or managed from Norway. As a general observation, the threshold for becoming taxable under domestic law is fairly low. The tax is computed in the same manner as for resident entities. A tax liability following from Norwegian domestic tax law may be limited in double taxation agreements entered into between Norway and other states.

For companies and persons domiciled abroad for tax purposes, however, Norway lacks internal legal basis for taxation as described when the activity takes place outside the Norwegian territorial boundaries at sea and the activity in question is not part of petroleum activity liable to special petroleum tax. Note however that the Government in a public consultation paper dated 21 February 2022 has proposed to introduce the necessary legal basis in the GTA for taxation of income from e.g. wind energy farms on the Norwegian Continental Shelf for companies and persons domiciled abroad for tax purposes. We assume that the necessary statutory provision can be adopted by the parliament within year end 2022.

Real property tax (Norw. eiendomsskatt) is a municipal tax. It can be imposed on all categories of real property, e.g. wind energy farms, or only on certain categories (certain limits following from the Real Property Tax Act of 1975). In the sea, the municipality's right to tax is limited to installations located within the baselines. The tax rate is optional by a municipality within the range 1 – 7‰, although in the first year of taxation the rate cannot

be higher than 1‰ and later the municipality cannot increase the tax rate with more than 2‰ from one year to another. The tax basis is equal to market value, which is determined by valuation and applies for 10 years regardless of actual market conditions in the period.

VAT will apply to importation/purchase of equipment. The current VAT rate is 25%.

16.3 What other revenue (including resource fees, if applicable) is payable to the state or the municipality in terms of the operation of wind turbines? Who benefits from the payment of property fees or other similar fees?

The Norwegian Parliament decided in 2020 that the Government should consider changes in wind energy taxation. In the national budget for 2022, the Solberg government proposed a special duty, an excise duty, for onshore wind power farms larger than 5 wind turbines or have more than 1 MW installed capacity. The duty must be paid to the state but shall be distributed from the state to the host municipalities. The special duty has been adopted and is a part of the Parliament's decision on special duties for 2022, but payments will not take place until 2023. It is however the Ministry of Finance that decides when the special duty comes into force.

16.4 Does the government receive lease payments, or other similar payments, for wind turbines build on state owned land?

The areas developed for onshore wind energy on state owned land are still in the possession of the Norwegian government. None of these areas have been sold to the owners of the wind power plants. The state has lease agreements with the wind power developers during the license period.

16.5 Does the government or municipalities offer any kind of support mechanism for wind energy projects? This could include tax deduction or deduction of other payable fees or discount on import duties for wind turbines.

After the scheme of electricity certificates was discontinued in 2021, there is no subsidy of onshore wind power in Norway. However, wind power plants that was in operation by the end of 2021 is approved in the electricity certificate scheme and will receive one electricity certificate for each MWh produces, for 15 years.

Offshore wind energy projects can apply to Enova and the NOx fund for fundings. Enova aims to promote innovation in energy and climate technology related to the transition to a lowemission society, reduced greenhouse gas emissions and to achieve lasting market changes. The NOx fund is a shared funding where the enterprises involved can apply for support for emission reduction measures. Payment to the fund replaces the NOx tax for the affiliated enterprises.

Enova and the NOx-fund has different purposes, and the organisations can fund different parts and costs of a project. Generally, Enova and NOx fund will not fund the same costs in a project, but exceptions to this may be relevant for particularly large or important projects. Fundings from the NOx fund is not considered state aid even though the tax exemption scheme for participating enterprises has been notified, and the NOx fund can therefore

provide support that goes beyond the state aid rules. The NOx fund is currently providing funding up to 80%, and Enova's funding is limited by the state aid rules and support is normally limited to less than 50% of approved costs.

17. TYPE OF LITIGATION RELATED TO WIND POWER PROJECTS

17.1 Please describe the process of disputes related to the development of wind energy projects. What are the local or administrative appeal routes available for those who disapprove of a prospected project and at what time shall they raise their concerns? Does the legislative framework encourage third parties or the general population to participate in disputes?

When the deadline for appeal pursuant to the Public Administration Act has expired, NVE makes an initial assessment of the complaints. If NVE does not comply with the complaints, these and any objections from the consultant will be submitted to the MPE for consideration. The complaints shall be commented on in the submission letter, and the objections shall be commented on in a background note to the decision. The same process applies to complaints to the detailed plan developed by the project owner. NVE makes the initial assessment of the complaints and submits any complaints to the MPE. The ordinary courts cannot review the complaints and decide whether the licence shall be granted but can review the validity of a licence decision.

Anyone with legal interests in accordance with the Public Administration Act can submit complaints to a licensing decision. This includes special interest organisations, municipalities and countries, landowners and licensees and others with some connection to the case. To have a legal interest in complaints, it is required for a concrete, practical and relevant interest in a judicial clarification of the decision and an overall assessment of the timeliness of the claim, the parties' connection to it and whether the person concerned has a real need to have the claim settled.

17.2 Are there special litigation proceedings available in your jurisdiction in relation to wind power projects?

No, there is no special litigation proceedings available in our jurisdiction relating to wind power projects.

17.3 Is the development or operation of wind power projects often disputed, by either the public or other entities?

Development of onshore wind power projects is often disputed by the public and other entities and almost every licence is appealed. The public often complain about the potential visual, noise pollution of the wind turbines and that wind turbines interfere with the wildlife.

As of today, licence for offshore wind has not been allocated and it is therefore not possible to conclude whether development is disputed by the public or other entities.

17.4 Do the same courts have jurisdiction in litigation relating to onshore and offshore projects?

Litigations relating to onshore and offshore projects are both tried by ordinary courts.

18. DIFFICULTIES ENCOUNTERED IN THE DEVELOPMENT OF WIND POWER PROJECTS (LACK OF SOCIAL ACCEPTANCE, ACCIDENTS, INEFFICIENT SUPPORT MECHANISM, STATE AID ISSUES ETC).

18.1 Briefly describe historical difficulties encountered in the development of wind projects in your jurisdiction and the current standing of future development of wind energy project.

There has been a strong opposition against the development and construction of onshore wind farms in Norway. Opponents of onshore wind energy has argued that the permanent noise complaints will lead to poorer public health for affected people, and it is unnecessary damage to the nature, wildlife, and hiking areas.

Pursuant to the government's energy white paper published in April, NVE will now restart processing of licence applications to develop onshore wind power where the host municipality consents.

18.2 Are current support mechanisms sufficiently supportive of the development of wind energy in your jurisdiction, as of today? Has there been a call for changes or updates to the support mechanisms framework to better support developers or electricity producers?

There are no support mechanisms for development of onshore wind power today, after the scheme of electricity certificates were discontinued in 2021. Besides the funding from Enova and NOx fund, no state aid schemes for offshore wind power have been established. The government has stated that it wants to further subsidise the development of offshore wind to prevent the power to be sold to other foreign electricity markets.

18.3 Have there been any state aid related issues in your jurisdiction in respect of wind energy projects?

We are not familiar with any state aid related issues in Norway regarding wind energy projects.

18.4 Are any litigation cases or proceedings currently taking place that could affect the future of wind energy in your jurisdiction?

There are to our knowledge no current litigation cases or proceedings taking place in our jurisdiction that may have such effects. However, notably, the Supreme Court passed a verdict in October 2021 between the wind power company Fosen Vind DA and two different Sami groups. The dispute concerned whether the development of Storheia and Roan wind power plants at Fosen violated the reindeer herding Sami's right to cultural practice under article 27 of the UN Convention on Civil and Political Rights. The Supreme Court unanimously concluded that the Sami's rights have been violated, and that the licence decisions and expropriation permits was invalid.

After the verdict, it is highly uncertain what will happen to the wind farms that are still standing. Both the Sami Parliament and the Sami groups want the wind farm removed, while Fosen Vind wants a new assessment of the compensation and whether new compensatory measures can be sufficient to keep the wind farm. Consequently, the verdict has led to uncertainties of the validity of other licenses for wind power and what the consequences on invalidity should be.

VIÐAUKI 4. SKOTLAND – SVÖR VIÐ SPURNINGALISTA

1 STATISTICAL INFORMATION

Total installed capacity of electricity production (GWh)	According to UK Government, in 2020 total electricity produced in Scotland was 51,865 GWh.[32] *[Note: we don't believe that the total installed electrical capacity of Scotland is a published figure – only the total electricity production.]*
Proportion of electricity produced from renewable energy resources (% of GWh)	2020 figures from the Scottish Government show that 61.8% of electricity generated in Scotland (equating to 32,063 GWh) was derived from renewable sources.[33]
Installed capacity of electricity produced from wind energy (GWh), distinguishing onshore and offshore wind power capacities.	**Offshore:** At the end of 2020, Scotland's operational offshore wind capacity was 0.9 GW, generating 3,492 GWh of electricity in 2020. **Onshore:** At the end of 2020 Scotland's operational onshore wind capacity was 8.3 GW, generating 19,583 GWh of electricity in 2020.[34]
Proportion of electricity produced from wind energy of total installed capacity (% of GWh), distinguishing onshore and offshore wind power capacities.	On the basis of the above numbers, in 2020 offshore wind generation was 6.7% of total electricity generation and onshore wind was 37.7% of total electricity generation.
What year did production of electricity from wind energy begin in your jurisdiction?	First UK commercial wind farm was Delabole Wind Farm which began operations in 1991.[35] First Scottish commercial wind farm was Hagshaw Hill which began operations in 1995.[36]

[32] BEIS Electricity generation figures for Scotland, Wales, Northern Ireland and England Energy Trends https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043239/Regional_Electricity_Generation_and_Supply_Timeseries.xlsx

[33] https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenElec&Chart=ElecGen

[34] https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenElec&Chart=ElecGen

[35] https://www.bbc.co.uk/news/uk-england-cornwall-12533687

[36] https://3renergy.co.uk/projects/hagshaw-hill-wind-farm/ and https://www.bbc.co.uk/news/uk-scotland-glasgow-west-52646105

Number of wind turbines currently in operation, distinguishing onshore and offshore facilities	**Offshore:** 165 turbines **Onshore:** 4,496 turbines[37]
Expected growth of electricity production from wind energy in the next 5 years in GWh, distinguishing onshore and offshore facilities	Significant growth is projected to 2030 and beyond due to Scottish and UK Government targets with the highest rate of growth projected for offshore wind. The ScotWind leasing round completed in July 2021, granted seabed rights for up to 25GW of offshore wind in Scottish waters.

2 INSTITUTIONAL, REGULATION AND ADMINISTRATIVE MATTERS

2.1 Is there a governmental policy in place, or any kind government framework, concerning the harnessing of wind energy in your jurisdiction? If so, briefly describe the object of the government policy and main provisions.

Note that we have focussed on Scottish specific matters where possible in our responses. However, as Scotland is part of the UK, UK Government policies are also applicable in Scotland. Electricity regulation is generally reserved to the UK Government but control of a number of specific matters, such as consenting new generation, is devolved to the Scottish Government.

Scottish Government Energy Strategy 2017

https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/

The energy strategy sets out a vision for energy in Scotland by 2050 built upon 6 priorities. One of the priorities is delivering renewable and low carbon solutions to meet the Scottish Government's emissions reduction targets.

The energy strategy also sets out a Scottish Government whole system energy target of the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources by 2030. This is assessed by the UK Committee on Climate Change as a very ambitious target.

The Scottish Government have indicated that they are working on a refreshed energy strategy but a publication date is not yet available.

Scottish Government Onshore Wind Policy Statement 2017

The policy statement is generally very supportive of the deployment of onshore wind within the scope of the Scottish Government's devolved powers. The policy statement therefore has a focus on development and consenting of new wind farms.

[37] https://www.renewableuk.com/page/UKWEDSearch

https://www.gov.scot/publications/onshore-wind-policy-statement-9781788515283/

A refreshed policy document was published for consultation in October 2021. It remains very supportive of the deployment of onshore wind in Scotland and focusses on the barriers to deployment that need to be addressed to enable further deployment.

https://www.gov.scot/publications/onshore-wind-policy-statement-refresh-2021-consultative-draft/

Scottish Government Offshore Wind Policy Statement 2020

The policy statement is generally very supportive of the deployment of offshore wind within the scope of the Scottish Government's devolved competence. The policy statement therefore focusses on development and consenting of new offshore wind farms and making seabed available for deployment.

https://www.gov.scot/publications/offshore-wind-policy-statement/

The policy statement makes reference to the separate work of Marine Scotland in developing a sectoral marine plan to identify areas suitable for offshore wind development and the potential leasing of those areas by Crown Estate Scotland.

https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/

2.2 Please provide a list of applicable legislation and regulations governing the use of wind energy for electricity production, distinguishing onshore and offshore wind power projects if relevant. We kindly ask you to provide a link to an online version of the applicable legislation and where and if applicable, a reference to the applicable chapter and/or articles (where only specific provisions of the Act apply to wind energy projects).

[*This could include acts governing the use wind of energy for electricity production, general provisions on electricity production, connection to the grid, specific protocols on wind turbines and their qualifications, land registration, planning and permitting, environmental impact assessment, etc.*]

General Note: *we have listed principal pieces of applicable legislation and all legislation listed is referred to "as amended".*

Electricity Act 1989 s4-10 licencing of activities relating to electricity including generation. Not specific to wind but includes wind generators. https://www.legislation.gov.uk/ukpga/1989/29/part/I/crossheading/licensing-of-supply-etc

Electricity Act 1989 s36 – 36E consent (including deemed planning permission) for the construction and operation of electricity generating stations. Not specific to wind but includes wind generating stations (onshore, inshore, offshore). https://www.legislation.gov.uk/ukpga/1989/29/contents

Electricity Act 1989 s37 consent for the construction and operation of overhead lines for transmission of electricity. Not specific to wind. https://www.legislation.gov.uk/ukpga/1989/29/section/37

Electricity Act 1989 s32 – 32Z2 renewables obligation subsidy for the generation of electricity from renewable sources. No longer applicable to new projects. https://www.legislation.gov.uk/ukpga/1989/29/contents.

Energy Act 2013 – Part 2 introduced electricity market reform and made provision for secondary legislation to introduce (i) contracts for difference (CfD), the main renewables support scheme in place in the UK at present and (ii) the capacity market, intended to support energy security in the UK. Not specific to wind. https://www.legislation.gov.uk/ukpga/2013/32/part/2

Industry Codes the key ones being the following. Not specific to wind:

- *Connection and Use of System Code – governing the connection of users (generation and demand) to the national electricity transmission system including charging. https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc/code-documents*

- *Grid Code – governing the technical requirements for connection to the national electricity transmission system. https://www.nationalgrideso.com/electricity-transmission/industry-information/codes/grid-code/code-documents*

- *Balancing and Settlement Code – effectively regulates the trading of electricity on the GB electricity market to balance generation and demand as far as possible through trading and then recover the cost of balancing the system. It also regulates metering. https://www.elexon.co.uk/bsc-and-codes/balancing-settlement-code/*

Land:

Scottish Crown Estate Act 2019 - specific to offshore projects - sets out a framework for the long-term management of the Crown Estate in Scotland. See section 5.5 below. https://www.legislation.gov.uk/asp/2019/1/contents

Land Registration etc. (Scotland) Act 2012. Not specific to wind but of general relevance in relation to the registration of land documents including for example windfarm leases. https://www.legislation.gov.uk/asp/2012/5/contents

Consenting:

- *Town and Country Planning (Scotland) Act 1997 (as amended) (onshore development – 50MW and below). https://www.legislation.gov.uk/ukpga/1997/8/contents*

- *Town and Country Planning (Development Management Procedures) (Scotland) Regulations 2013 (application procedure - onshore development – 50MW and below). https://www.legislation.gov.uk/ssi/2013/155/contents*

- *Electricity (Applications for Consent) Regulations 1990 (onshore development >50MW; offshore). https://www.legislation.gov.uk/uksi/1990/455/contents/made*

- *The Electricity Generating Stations (Applications for Variation of Consent) (Scotland) Regulations 2013 (onshore development >50MW; offshore). https://www.legislation.gov.uk/ssi/2013/304/contents*

Licensing (inshore, offshore):

- *Marine (Scotland) Act 2010 (inshore) - https://www.legislation.gov.uk/asp/2010/5/contents*
- *Marine and Coastal Access Act 2009 (Part 4) (offshore) - https://www.legislation.gov.uk/ukpga/2009/23/part/4*
- *The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 (prospective applicants for a marine licence for an activity of a 'prescribed class' may notify the Scottish Ministers requiring a pre-application consultation statement) - https://www.legislation.gov.uk/ssi/2013/286/contents/made*
- *Energy Act 2004, s105 - requirement to prepare decommissioning programme (offshore) - https://www.legislation.gov.uk/ukpga/2004/20/section/105*

Environmental Impact Assessment:

- *The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (onshore, development under 50MW) - https://www.legislation.gov.uk/ssi/2017/102/contents*
- *The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (applications under sections 36 and 37 of the Electricity Act/ development over 50MW) - https://www.legislation.gov.uk/ssi/2017/101/contents*
- *The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (inshore waters) - https://www.legislation.gov.uk/ssi/2017/115/contents*
- *The Marine Works (Environmental Impact Assessment) Regulations 2007 (offshore waters) - https://www.legislation.gov.uk/uksi/2007/1518/contents*

Assessment of Impacts on European Sites:

- *The Conservation of Habitats and Species Regulations 2017 (s.36 consent applications) - https://www.legislation.gov.uk/uksi/2017/1012/contents*
- *The Conservation (Natural Habitats, &c.) Regulations 1994 (onshore and inshore) - https://www.legislation.gov.uk/uksi/1994/2716/contents*
- *The Conservation of Offshore Marine Habitats and Species Regulations 2017 (apply to marine licence and s.36 consent applications within Scotland's offshore region) - https://www.legislation.gov.uk/uksi/2017/1013/contents*

- *The Conservation of Offshore Marine Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1013/contents) (implement species protection requirements of the Habitats and Birds Directives offshore (more than 12 nautical miles from the coast))*

Other:

- *Basking Shark Licences under the Wildlife and Countryside Act 1981 (as amended) and the Wildlife and Natural Environment (Scotland) Act 2011 - https://www.legislation.gov.uk/ukpga/1981/69/contents and https://www.legislation.gov.uk/asp/2011/6/contents.*

Note:

Onshore *means development on land*

Inshore *or* ***Scottish Territorial Waters*** *means the area of sea within the seaward limits of the territorial sea adjacent to Scotland, broadly all waters within 12 nautical miles of the Scottish coast, and includes the waters of every estuary, river or channel, so far as the tide flows at mean high water spring tide)*

Offshore *or* ***Scottish Offshore Waters*** *means broadly waters more than 12 nautical miles from baselines (i.e. the area stretching from 12 nautical miles out to limits of UK jurisdiction), broadly 12 to 200 nautical miles*

("offshore" in this paper generally means both inshore and offshore unless otherwise stated)

2.3 Identify the governmental and administrative bodies connected to wind energy projects and briefly explain their role and activities. We kindly ask you to provide a link to the website of the applicable entity, where applicable.

[*Please provide information on involvement throughout the lifetime of a wind energy project, from possible exploration, throughout electricity production and demolishing of wind turbines. This could include a licensing authority, municipalities, sub-committees of municipalities, the government, competition authority etc.]*

UK Government – department of Business Energy and Industrial Strategy https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

- *sets policy on electricity for the whole of the UK*

Scottish Government https://www.gov.scot/policies/renewable-and-low-carbon-energy/

- *sets national policy*

- *determines applications s36 and s37 consents under the Electricity Act 1989 through the* ***Energy Consents Unit*** *https://www.energyconsents.scot/*

- *determines applications for and regulates marine licenses in the Scottish inshore region (between 0 and 12 nm) under the Marine (Scotland) Act 2010 and in the Scottish offshore*

region (between 12 and 200 nm) under the Marine and Coastal Access Act 2009 through ***Marine Scotland or MS-LOT*** *https://marine.gov.scot/*

- *determines appeals from local authority consenting decisions, save for local scale developments (<20MW) determined by local authority officers under delegated powers*

Local Authorities – there are 32 local authorities in Scotland.

- *determine applications for planning permissions for projects and sets local planning policies*
- *determine appeals for local scale developments determined by local authority officers under delegated powers*

Ofgem – the energy regulator for Great Britain (England, Wales, Scotland) https://www.ofgem.gov.uk/

- *issues and administers electricity licences (including generation licences) and deals with compliance and enforcement*

National Grid Electricity System Operator- https://www.nationalgrideso.com/

- *responsible for operating the national electricity transmission system (but note that this is a separate entity from the companies that own the transmission infrastructure) also responsible for administering industry codes*
- *issues and manages connection agreements for connection to the national electricity transmission system and manages the interface with the transmission owners*

Distribution Network Operators – there are 2 in Scotland – Scottish Power Distribution (covering the South of Scotland) https://www.spenergynetworks.co.uk/ and Scottish Hydro Electric Power Distribution (covering the North of Scotland) https://www.ssen.co.uk/

- *responsible for owning and operating the local electricity distribution networks*
- *issues and manages connection agreements for connection to the local electricity distribution networks*

Low Carbon Contracts Company https://www.lowcarboncontracts.uk/

- *this is a private, government owned company established to enter into and administer Contracts for Difference (CfDs). CfDs are the main revenue support mechanism for renewable electricity generation in Great Britain including onshore and offshore wind.*

Crown Estate Scotland https://www.crownestatescotland.com

- *this is the public corporation of the Scottish Government responsible for the management of land and property in Scotland owned by the monarch, including coastal and marine assets. Crown Estate Scotland leases the seabed around Scotland for offshore wind projects*

- *the Scottish Crown Estate Act 2019 - specific to offshore projects - sets out a framework for the long-term management of the Crown Estate in Scotland. See section 5.5 below. https://www.legislation.gov.uk/asp/2019/1/contents/enacted*

Statutory Consultees

- *Statutory consultees are specialist or other stakeholders - they are consulted as part of the planning / consenting decision making process. Consultees may differ depending on the circumstances of the development. Key consultees for wind projects include:*

NatureScot https://www.nature.scot/

- *public body responsible for Scotland's natural heritage, especially its natural, genetic and scenic diversity*

Scottish Environmental Protection Agency or SEPA https://www.sepa.org.uk/

- *Scotland's principal environmental regulator, protecting and improving Scotland's environment*

Historic Environment Scotland https://www.historicenvironment.scot/

- *lead public body established to investigate, care for and promote Scotland's historic environment*

Royal Society for the Protection of Birds https://www.rspb.org.uk/about-the-rspb/#:~:text=%C2%A9%20The%20Royal%20Society%20for,charity%3A%20England%20and%20Wales%20no.

- *nature conservation charity focussing on bird interests (generally consulted on a voluntary basis)*

Roads Authorities

- *Local roads authority (individual local authorities) and national roads authority (Transport Scotland - https://www.transport.gov.scot/)*

Airport or aerodrome operators

- *(where development is proposed within area on a safeguarding map around airports, aerodromes and air traffic control equipment)*

- *Scotland has 4 main international airports - Glasgow, Edinburgh, Aberdeen, Glasgow Prestwick*

- *Highlands and Islands Airports Limited (HIAL https://www.hial.co.uk/) is responsible for the management and operation of 11 regional airports serving some of the nation's remotest communities: Barra, Benbecula, Campbeltown, Dundee, Inverness, Islay, Kirkwall, Stornoway, Sumburgh, Tiree and Wick*

- *NATS https://www.nats.aero/careers/trainee-air-traffic-controllers/ - operates two air traffic control centres in the UK. One at Swanwick in Hampshire and the other in Prestwick, Ayrshire. Prestwick Centre handles air traffic across northern England, Scotland and out into North East Atlantic*

Secretary of State for Defence

- *has overall responsibility for the business of the Department of Defence, including strategic operations and operational strategy, defence planning, programme and resource allocation (where development is within area safeguarded around military airfields or explosives storage areas)*

Community Councils (will vary depending on area in which the development is located)

2.4 Please provide information on the involvement of other private entities, to the extent possible.

Most wind generators (and their funders/ investors) are private entities.

The DNOs/ TOs are private entities but are noted at 2.3 above.

Elexon- https://www.elexon.co.uk/

- *responsible for operating and administering the balancing and settlement code.*

2.5 Has the government and/or local municipalities pre-defined areas where wind energy can be harnessed, at sea or on land? Please describe the decision making behind the location of a wind energy project. Is there a framework in place governing possible locations of wind farms? What role due municipalities have in terms of allowing or limiting use of land?

Onshore

There are no pre-defined areas where wind energy can be harnessed (although see comments below on spatial strategy). Consenting decisions are policy based.

Development and use of land is generally governed by development plans which are set at a national and local level. Development plans in Scotland are currently made up of –

- *Strategic development plans (in certain city areas) and / or*
- *Local development plans and*
- *Supplementary planning guidance.*

The development system is currently being reformed. Post reform development plans will comprise –

- *The National Planning Framework, including Scottish Planning Policy and*
- *Local development plans.*

The National Planning Framework and Scottish Planning Policy is set by the Scottish Government. Both are subject to public consultation as are the components of the development plan. Local development plans are made by local planning authorities and contain policies to regulate the use and development of land generally as well as map based land designations.

The development plan sets out national and local policy on renewable energy developments including wind. Applications for planning permission must be determined in accordance with the development plan unless material planning considerations indicate otherwise. Material considerations include e.g. landscape and visual impact, environmental impact, socio-economic considerations, impact on heritage assets.

There is a large volume of national and local guidance on energy and wind development in Scotland.

National planning policy - https://www.transformingplanning.scot/national-planning-framework/ - (currently in its third iteration but the Government is consulting on the fourth) is broadly supportive of wind development in Scotland but emphasises the need for the right development in the right place and taking account of relevant environmental and socio-economic interests.

Scottish Planning Policy (SPP) encourages local authorities to include a spatial strategy for onshore wind within their developments plans comprising a 3 tier system –

- *Group 1: Areas where wind farms will not be acceptable*
- *Group 2: Areas of significant protection*
- *Group 3: Areas with potential for wind farm development.*

SPP is currently under review.

Local development plans include policies around onshore / inshore wind development where relevant, which may indicate preferred areas for onshore wind development, or areas that are not suitable for wind development (as per the SPP guidance).

Local authorities in Scotland typically commission a landscape sensitivity study (LSS) - a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development. They are used to inform the preparation of LDPs and their policies, and decisions on planning applications.

Scotland also has areas that are identified as "wild land" - these are the most extensive areas of high wildness which are identified as nationally important, but are not a statutory designation. NatureScot identified Scotland's wild land areas following a 2013 consultation on 'core areas of wild land', which in turn informed the preparation of a map of wild land areas. Wild land is a constraint on wind development in Scotland and impact on wild land is a material consideration in determining planning applications.

Offshore

Marine planning (developments inshore and offshore) is regulated by marine planning policy - broadly consisting of:

- ***UK Marine Policy Statement*** *- facilitates an integrated approach to marine planning across the UK and sets out the high-level framework for preparing marine plans and taking decisions affecting the marine environment. Outlines requirement for marine plans within UK waters to be developed taking into account environmental, social and economic objectives (i.e. Strategic Environmental Assessment, Social and Economic Impact Assessment).*

- ***Scotland's National Marine Plan*** *- sets out a single statutory planning framework for all marine activity out to 200 nm in Scottish waters (see in particular Chapter 4 - General Policies, Chapter 11 - Marine Renewable Energy, Chapter 6 - sea fisheries policies and Chapter 14 - submarine cables)*

- ***Regional Marine Plans*** *- Eleven Scottish Marine Regions have been created which cover sea areas extending out to 12 nautical miles. Regional Marine Plans are developed by Marine Planning Partnerships to take account of local circumstances and smaller ecosystem units. - see https://www.gov.scot/policies/marine-planning/regional-marine-planning/*

- ***Sectoral Marine Plan for Offshore Wind Energy*** *(published October 2020) - aims to identify sustainable plan options for the future development of commercial scale (projects capable of generating more than 100MW) offshore wind energy in Scotland, covering both inshore and offshore waters. It articulates the Scottish Government's strategic vision and objectives for future commercial-scale offshore wind development and articulates the spatial framework to inform the Crown Estate Scotland leasing process. Identifies 15 Plan Options ("POs"), split across 4 regions (see Figure 3 in the download), which are capable of generating several GW of renewable energy. Individual projects will be shaped by technical, environmental and economic constraints related to the location, scale and/or timing of the proposed development. The Plan will guide the relevant consenting bodies when making decisions on individual licence and consent applications, but should not be considered as pre-determining those decision-making processes. - https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/ - see*

- ***Regional Locational Guidance*** *- developed to inform sectoral marine plans; contain information relating to the search areas for future offshore wind, wave and tidal energy plan options*

Marine Scotland (i.e. the Scottish Government) has prepared the following guides in relation to marine planning for renewable energy:

  - *Offshore wind, wave and tidal energy applications: consenting and licensing manual (published October 2018): https://www.gov.scot/publications/marine-scotland-consenting-licensing-manual-offshore-wind-wave-tidal-energy-applications/*

  - *Marine licensing: applications and guidance (last updated 6 June 2022): https://www.gov.scot/publications/marine-licensing-applications-and-guidance/*

The location of a wind energy development is for the developer to determine (subject to the necessary consents / Crown Estate rights) by carrying out its own technical assessments. However, see section 2.7 below on Crown Estate Scotland's tendering process for offshore wind sites.

Section 36 applications – when determining applications for section 36 / 37 consent, the Scottish Ministers shall have regard to –

- *the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest and*
- *the extent to which the applicant complied with its duty to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects (section 38 and Schedule 9 of the Electricity Act 1989 - https://www.legislation.gov.uk/ukpga/1989/29/contents).*

The development plan is also a material consideration to be taken into account.

2.6 In terms of offshore windfarms, have special areas been defined by the government and/or municipalities for future projects? If applicable, briefly describe how those areas were nominated. Can offshore wind farming be established outside of areas previously highlighted by the government?

***Consenting**: See 2.5 above at "Offshore"*

***Leasing**: See 2.7 below.*

2.7 Does the government call for tenders for wind energy projects? If so, briefly describe the tendering procedure. Can a developer, on his own initiative, reach out to the government or municipality and ask to develop a wind energy projects on a certain area of land or sea?

***Onshore:** There is no tendering process. Developers can choose where to site projects and reach agreement with the relevant landowner and then request consents from the relevant authority.*

***Offshore**: The Crown Estate Scotland has recently run a competitive process to allocate leases of areas of the seabed based on the Sectoral Marine Plan referred to at section 2.5 above. This leasing round was known as ScotWind and was completed in July 2021. The ScotWind process awarded options for leases over 17 areas of seabed to projects with a potential capacity of up to 25GW. https://www.crownestatescotland.com/news/scotwind-offshore-wind-leasing-delivers-major-boost-to-scotlands-net-zero-aspirations*

Crown Estate Scotland is expecting to run another round this year known as INTOG. This round will be focussed on innovation projects and the decarbonisation of oil & gas production. https://www.crownestatescotland.com/news/new-leasing-opportunity-unveiled-to-boost-innovation-and-help-decarbonise-north-sea

Developers may approach Crown Estate Scotland to lease additional areas but it is unlikely that any such interest would be granted outside of the formal competitive processes.

2.8 Other information concerning the institutional or legislative framework governing wind energy projects that you would like to add.

N/A

3 PERMITTING, LICENSES AND APPLICATIONS

3.1 Please provide a general description of the licensing procedure for wind energy projects (distinguishing onshore and offshore wind power projects if relevant) as well as a list of the licenses required, from possible exploration throughout the lifetime of a project.

[*Please provide information on the applicable governmental bodies at each stage and types of licenses.]*

Consenting Process:

Onshore

up to 50MW - application is made to and determined by local planning authority

over 50MW - s36 - application is made to and determined by the Scottish Ministers (Energy Consents Unit (ECU)) - see Scottish Government's 'Electricity Act 1989 - sections 36 and 37: applications guidance' which is 'good practice guidance' and sets out the procedure for applications for s36 and s37 consent: https://www.gov.scot/publications/good-practice-guidance-applications-under-sections-36-37-electricity-act-1989/

- *pre-application discussions with consenting body and public (developer)*
- *screening and scoping for Environmental Impact Assessment (development, consenting body)*
- *further pre-application discussions and consultations with consenting body and public*
- *preparation of Environmental Impact Assessment Report (developer)*
- *gate check by ECU (s36 only) – a 2 stage process looking at (i) how the applicant will address matters raised in the EIA scoping opinion and (ii) managing the administrative requirements of the application submission*
- *Submission of application*
- *consideration of application*
    - *further information if required*
    - *consultation*
    - *public hearing or inquiry if required (s36 only)*
- *determination / decision (s36 - a reporter will consider the application and run any public inquiry process if required, then report to the Scottish Ministers with their*

recommendation as to whether consent should/ should not be granted; the Ministers ultimately make the decision on the application)

- *issue of decision notice*
- *discharge of pre-start conditions*

Offshore

Consenting broadly similar to onshore but the consenting body is Marine Scotland or MS-LOT - Marine Scotland's Offshore wind, wave and tidal energy applications: consenting and licensing manual (link at 2.5 above and here: - https://www.gov.scot/publications/marine-scotland-consenting-licensing-manual-offshore-wind-wave-tidal-energy-applications/ (a flowchart at p33 gives a broad indication of timescales, although note timescales can vary and are not guaranteed)

Consents Required:

pre-application

- *planning permission or marine licence for met mast which will be used to measure wind speeds*
- *permissions to carry out environmental / technical assessments from landowners/ tenants*

consent/ post-consent / decommissioning

- *planning permission / s36 consent (plus deemed planning permission which is typically granted alongside any s36 consent)*
- *marine licence(s) (offshore)*
- *variations - non-material variations (nmvs) may be dealt with informally via the consenting body (local planning authority for onshore, and s36 consents, MS-LOT for offshore, albeit there is no recognised process for nmvs in the case of s36 consents; material variations require a formal application to be made which will follow broadly the same consenting process as outlined above)*
- *other permissions etc which may be required will vary depending on the nature of the development and works to be carried out for its construction, operation and decommissioning, including:*
  - *roads consents and permits – e.g. for road widening works to allow the transport of turbine components*
  - *roads orders - e.g. for temporary or permanent closure of public rights of way / roads*
  - *European Protected Species Licence, Basking Shark Licence*

- *controlled activities licences for any activity which directly or indirectly has or is likely to have an adverse impact on the water environment*
- *Navigational Safety and Aids to Navigation (offshore)*
- *Harbour Revision Orders (offshore)*
- *Safety Zone application (offshore)*
- *statutory decommissioning scheme (Energy Act 2004, s105)*

Generation Licence

- *It is an offence to generate electricity (from any generation type) without a licence under section 6 of the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/section/6) or a relevant exemption from the requirement to obtain a licence.*
- *Generation licences are granted by Ofgem (see section 2.3).*
- *Class exemptions to the requirement to hold a generation licence apply under The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001 - https://www.legislation.gov.uk/uksi/2001/3270/contents. The most common exemption is for small generators with projects below 50MW. If a class exemption applies then no further action is required. There is no process to request an exemption.*
- *Specific exemptions can be granted by the Secretary of State on a case by case basis. Generation projects between 50MW and 100MW generally seek, and are granted, an individual exemption. Exemptions are not generally granted for projects over 100MW.*

3.2 Please provide a description of each license required, documents to be submitted and the general criteria for obtaining a license. Please include information on the duration of each type of license.

Documentation to be submitted will depend on the circumstances of each development proposal.

Planning permission

- *authorises development in terms of the Town and Country Planning (Scotland) Act 1997 (https://www.legislation.gov.uk/ukpga/1997/8/contents)*
- *permissions for wind farms are typically temporary (historically were granted for 25 years; 30-40 years duration becoming more common)*
- *applications determined in accordance with relevant development plan and other material considerations (see 2.5 above)*

- *applications accompanied by location plan; technical drawings; Environmental Impact Assessment Report; pre-application consultation report; planning supporting statement; other technical assessments.*

Section 36 consent (and deemed planning permission)

- *authorises construction, operation, extension and decommissioning of a generating station (including wind farms of >50MW)*
- *consents for wind farms are typically temporary (historically were granted for 25 years; 30-40 years duration becoming more common) and is personal to the grantee*
- *applications determined having regard to (i) the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest, and (ii) the applicant's compliance with its duty to mitigate impacts on these assets. Development plan to be taken into account (see 2.5 above).*
- *applications accompanied by Environmental Impact Assessment Report; Habitats Regulations report (if relevant) pre-application consultation report; planning supporting statement; other technical assessments and proposed management plans if relevant*

Marine Licences

- *authorise specified licensable marine activities, including depositing a wind turbine on sea bed*
- *endures until works are decommissioned*
- *applications determined having regard to (a) the need to protect the environment, (b) the need to protect human health, (c) the need to prevent interference with legitimate uses of the sea, (d) such other matters as the Scottish Ministers consider relevant*
- *applications accompanied by location plan; technical drawings; Environmental Impact Assessment Report; supporting statement; method statement*

Generation Licence

- *authorises the generation of electricity which is a licensable activity under section 6 of the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/section/6) (see section 3.1 on exemptions)*

- *the generation licence is the most straightforward of the licensable activities and is the simplest licence to obtain with the fewest conditions (for comparison an electricity supply licence or electricity transmission licence is much more onerous to obtain and to comply with)*

- *an electronic application form (available on Ofgem's website) needs to be completed and submitted to Ofgem. For a generation licence, the information to be provided is basic corporate information plus responses to questions on criminal convictions, disqualifications, insolvency etc. and previous licence history (if any).*

3.3 Are there any pre-emptive rights secured within the licensing framework, such as a pre-emptive right to move over from a feasibility phase to a utilisation phase. Does a license automatically convert into a different type of license?

For planning permission; section 36 consents and marine licences – No. Consenting process is front loaded in Scotland, meaning that most of the feasibility studies and environmental assessment work is done before an application for permission / consent is submitted. Further studies and assessments may be required once consent has been granted (e.g. further species surveys, archaeological assessments and land contamination of mining risk assessments) - those may inform final placement of infrastructure (within any limits prescribed by the permission/ consent), and may be required before construction commences on site or at different stages of construction, operation and/or decommissioning of a project (and are typically secured by conditions attached to the permission / consent / licence).

The generation licence is required for the generation of electricity. It is generally only applied for once it is certain that the project is going to be built and will generate electricity.

3.4 Briefly describe the encumbrances in place for the license holder to keep a license, once granted.

Planning permission / section 36 consents / marine licences are all typically granted subject to conditions which will govern construction, operation and decommissioning of a project. Conditions will address matters such as –

- *Decommissioning and restoration*

- *Noise*

- *Construction phase - e.g. methods, pollution prevention and control measures, transportation of components / abnormal load routes, construction hours*

Carrying out development in breach of a permission / consent conditions is a breach of planning control which may result in enforcement action by the local planning authority.

Section 36 consents are personal to the grantee and may not be assigned or transferred without the prior written consent of the Scottish Ministers. The construction or operation of permitted works by an entity other than the grantee or an approved assignee is unlawful. Section 36 consents are granted subject to conditions governing matters similar to those mentioned above (other topics that conditions will cover include archaeology and cultural heritage (e.g. carrying

out investigations and what happens if interests / features are identified), engagement of an ecological clerk of works, radar and aviation, fish/ species / bird surveys and mitigation).

Marine Licenses are also personal. It is an offence to carry on a licensable activity without a marine licence and an offence to fail to comply with any condition of a marine licence. Again, these will be granted subject to conditions governing various matters including construction, navigational safety, limits on deposits etc.

Generation Licenses are also personal. It is an offence to carry on a licensable activity without a generation licence. Licences, will be granted subject to conditions governing various matters including compliance with industry codes and duties of co-operation with National Grid.

3.5 What actions of the license holder would warrant a revision of the license? Does the license granting authority have the power to revoke or terminate a license during the term of the license? If yes, what actions of the license holder would warrant a revisions or termination of the license.

Operating in breach of permission / consent / licence conditions could result in enforcement action by the consenting authority or prosecution.

Planning permission:

Local planning authorities have the power to revoke or modify a planning permission where it appears expedient to do so but only to the extent that construction of the development has not been completed. The authority must have regard to the development plan and any other material planning considerations. We are not aware of any instances of revocation in Scotland in connection with wind farms.

Local planning authorities also have various enforcement powers at their disposal, including the power to serve breach of conditions notices, enforcement notices and/or stop notices in order to remedy any breach (subject to procedures set out in relevant legislation). Failure to comply with a notice can result in a fine.

Also have power to seek interdict (an order form the courts to stop development) but it is rarely used and can be expensive.

s36 consents:

Construction, extension or operation of a generating station other than in accordance with a section 36 consent is a breach of the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/contents) liable on summary conviction to a fine not exceeding level 5 on the standard scale (current maximum £5,000).

As noted, s36 consents are personal to the grantee and may not be assigned or transferred without the prior written consent of the Scottish Ministers. The construction or operation of permitted works by an entity other than the grantee or an approved assignee is unlawful.

There are no powers under the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/contents) for the revocation or modification of section 36 consents by the Scottish Ministers.

Marine licences:

Scottish Ministers have the power to vary, suspend or revoke ta marine licence if it appears to them that there has been a breach of any of its provisions, the applicant supplied information that was false or misleading; the applicant failed to supply information that might reasonably have been expected to be supplied; or new information affects the licensing decision (subject to procedures set out in relevant legislation).

The Scottish Ministers can, in accordance with the Marine (Scotland) Act 2010 (https://www.legislation.gov.uk/asp/2010/5/contents), issue a:

- *Compliance Notice, requiring the applicant to take steps to comply with the condition(s); or a*
- *Remediation Notice, requiring the applicant to take remedial or compensatory steps as specified in the notice*

Failure to comply with a notice is an offence, which could result in a fine or imprisonment.

Generation licences:

Ofgem has the power to vary the conditions of generation licences specifically or as they apply to all holders of generation licences. Ofgem has the power to revoke a generation licence as specified in the individual licence. Typically, this includes failure to pay licence fees, failure to comply with an enforcement notice from Ofgem, insolvency, providing false information in the application and ceasing to generate.

Other licensing information you feel would be valuable to understand the licensing structure of your jurisdiction.

N/A

4 ENVIRONMENTAL ISSUES

4.1 Briefly describe how environmental impact assessments, or other environmental requirements, affect the development of wind energy projects. Under what circumstances and at what stage of the project is there a requirement to perform a formal environmental impact assessment?

[*Is there a flat obligation to perform an environmental impact assessment or can, for example, the size of the wind farm impact the obligation. Briefly describe the process of the environmental impact assessment, the governmental bodies or authorities involved, appeal deadlines etc.*]

EIA is a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects arising from a proposed development. It is threshold based - i.e. the requirement for EIA depends on the nature and scale of the project and the likelihood of significant environmental effects arising from the proposed development - for example:

- *All developments falling within a description in Schedule 1 to The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (https://www.legislation.gov.uk/ssi/2017/102/schedule/1) require EIA.*

- *Developments of a type listed in Schedule 2 to the aforementioned regulations (https://www.legislation.gov.uk/ssi/2017/102/schedule/2) will require EIA if they are likely to have a significant effect on the environment, due to factors such as their size, nature or location.*

EIA includes the following broad stages:

Pre-application

- *Screening - determines whether an EIA is required*
- *Scoping - identifies the issues which must be addressed in the EIA Report*

Assessment

- *EIA Report - assesses the likely significant effects of a project, and is then submitted with related consenting application to consenting authority*
- *Consultation/public participation by decision maker - to gather views from stakeholders on the likely effects of the project.*
- *Further environmental or supplementary environmental information if required*
- *Determination of consenting application – decision made by the relevant decision maker having considered the environmental information, mitigation and consultation responses.*

Post-consent

Multi-stage consent / regulatory approval – for certain multi stage consents, further EIA may be required at subsequent consenting stage

Habitats Regulations Appraisal (HRA) – European sites (see legislation referred to at 2.2 (Assessment of European sites)

- *If project has potential to affect a European site, developer undertakes a HRA report to provide decision maker with information required for them to either complete an Appropriate Assessment or rule out the potential for likely significant effects on the qualifying interests of European sites.*
- *HRA report should be submitted as part of the application package of documents required under the EIA process.*
- *Appropriate assessment is carried out under the Habitats Directive 92/43/EEC (relevant legislation referred to at 2.2 above) by decision maker where significant effects on the qualifying interests of European sites are likely*
- *Responsibility to carry out the Appropriate Assessments rests with the decision maker but can be based on information submitted from other agencies (e.g. NatureScot) and information obtained from the applicant*

- *In relevant cases, decision maker must be satisfied that there will be no adverse effect on the integrity of the European site before issuing a permission / consent / marine licence*

- *Three stage process, broadly:*

    - *Step 1: Is the proposal directly connected with or necessary for site management for nature conservation? (in which case, no requirement)*

    - *Step 2: Is the proposal likely to have a significant effect on the site either alone or in-combination with other plans or projects?*

    - *Can it be ascertained that the proposal will not adversely affect the integrity of the site either alone or in-combination with other plans or projects (the Appropriate Assessment)?*

- *Where there is doubt about the presence or absence of adverse effects on integrity, the proposal may not proceed unless there are no alternative solutions and there are imperative reasons of overriding public interest.*

Offshore also includes the following considerations (not a comprehensive list):

- *European Protected Species - animals and plants (listed in Habitats Directive Annex IV) are protected under The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (https://www.legislation.gov.uk/uksi/1994/2716/contents) and The Conservation of Offshore Marine Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1013/contents). Any activity likely to cause disturbance or injury to a European Protected Species requires a licence to undertake the activity legally (similar requirements apply to onshore).*

- *Marine Protected Areas (MPAs) - a network of Nature Conservation MPAs designated in Scottish waters. Under section 83 of the Marine (Scotland) Act 2010 (https://www.legislation.gov.uk/asp/2010/5/section/83) / section 126 of the Marine and Coastal Access Act 2009 (https://www.legislation.gov.uk/ukpga/2009/23/section/126) public authorities (including Scottish Ministers) must consider whether a project is capable of affecting (other than insignificantly) a protected feature in an MPA. They must not grant authorisation for the relevant activity unless it is satisfied that there is no significant risk of the activity hindering the achievement of the objectives of the site.*

- *Basking Sharks - Protected from intentional or reckless disturbance or harassment under Wildlife and Countryside Act 1981 (Schedule 5) (https://www.legislation.gov.uk/ukpga/1981/69/schedule/5) and Wildlife and Natural Environment (Scotland) Act 2011 (https://www.legislation.gov.uk/asp/2011/6/contents); basking shark licence may be required to allow some works under a marine licence and/or offshore s36 consent to commence.*

4.2 Please provide information on other applicable legal requirements relating to the effects wind energy projects can have on their environment, such as specific provisions in relation to wildlife protection (in sea or at land), noise pollution or visual pollution.

see above at 2.2

4.3 If applicable, describe other environmental or social requirements or obligations applicable to wind energy projects, distinguishing onshore and offshore wind power projects if relevant.

Other environmental requirements will depend on the circumstances of the case.

See below at 4.4 at 'Community Benefit'

4.4 How can the public participate in wind energy projects and their development? At what stages can the public raise their concerns, if any, and under what circumstances?

Consenting

Most wind energy developers will carry out public consultation prior to submitting an application. Pre-application consultation is mandatory for developments of a certain type and size. During pre-application consultation, members of the public and other stakeholders can give developers their views on a proposal - it is up to the developer whether it makes any adaptations to the proposal as a result.

During the application process, the public has an opportunity to make representations on a proposal. There is a statutory period within which representations are to be made, although the decision maker should take into account representations received up until such time as a decision is reached on the application.

The public may also participate in any inquiry process should that be necessary as part of the decision maker's determination of an application.

There is no third party right of appeal against a grant of a permission / licence / consent in Scotland, but parties with sufficient interest may challenge the decision to grant a permission / consent / licence by way of judicial review in court. There have been several judicial reviews of wind farm consents over the years, with mixed success.

Community benefit

It is common that developers will commit a certain amount of £ per MW of installed capacity for the benefit of the communities local to the development (typically paid directly to community councils or to the local authority who then pays it on).

*Community benefit is voluntary is **not** a material planning consideration and therefore will not influence the decision maker in their determination of an application for a permission / consent / licence.*

The Scottish Government has developed good practice principles for community benefits from onshore renewable developments: https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/pages/2/

The Scottish Government promotes community benefits of the value equivalent to £5,000 per installed megawatt per annum, index linked for the operational lifetime of a project but the amount is at the discretion of the developer. Community benefits packages may also include shared ownership.

A community benefits map is maintained by Local Energy Scotland - a consortium that administers and manage the Scottish Government's Community and Renewable Energy Scheme (CARES) https://localenergy.scot/ here: - https://localenergy.scot/community-benefits-map/ .

Community Ownership/ Shared Ownership

The Scottish Government promotes community / shared ownership of renewable energy projects, including onshore wind farms. Various ownership models have been adopted for those projects that have offered shared ownership. Community/ shared ownership is voluntary and only a limited number of projects have achieved a portion of shared ownership.

The Scottish Government has developed good practice principles for shared ownership of onshore renewable developments: https://www.gov.scot/publications/scottish-government-good-practice-principles-shared-ownership-onshore-renewable-energy-developments/pages/1/

5 PROPERTY ISSUES

5.1 Provide general information on access to land of a third party. Is there a requirement to seek consent of a landowner in the application process of a wind energy project?

Agreement with the landowner is required where a project needs rights to land owned by a third party. For example, the developer is likely to negotiate with the landowner a lease of the project site. Onshore the counterparty is the owner of the relevant land. Offshore the counterparty is likely to be Crown Estate Scotland. The developer may also benefit from servitude rights (broadly equivalent to easements in England) over land needed for the project.

***Consenting:** There is no requirement for landowner consent in order to apply for planning permission or a section 36 consent, however a landowner would be notified of any application for planning permission.*

5.2 How would the landowner be compensated for the use of land? Would he be entitled to any further payments during the lifetime of a wind energy project?

Typically in Scotland, the developer leases (as opposed to purchases) the land required for the energy development. In order validly to constitute a lease, there must be an annual rent payable. The level of rent and of any other payments falling due under the lease is a matter for commercial negotiation between the parties.

In our experience often the rent that the landlord receives is the higher of (i) a base rent (i.e. a fixed sum per annum (index linked), often based on the installed capacity of the project) and (ii) a variable rent, often a percentage share of the gross income of the project.

5.3 What are the rights of landowners of private land? Can they delay or even prevent development of wind energy projects on his or her land?

If a landowner of private land is not willing to grant the necessary rights over his land then it may be possible to acquire the rights compulsorily by a compulsory purchase order or necessary wayleave depending on the rights required. The exercise of such compulsory purchase powers must be authorised by the Scottish Ministers. A compelling case in the public interest must be demonstrated. If opposed by the landowner, a public inquiry may be necessary. The process may take around 18 – 24months. While project delay is possible, the promotion of a CPO or wayleave is often carried out in tandem with other consenting processes.

5.4 Briefly describe the zoning and planning process of wind energy projects. What are the roles of the landowner, the developers, third parties, government agencies or municipalities? Please provide information on the timing and cost of gathering and maintaining the necessary zoning and planning permits.

Consenting: *- see 2.5 above*

What rules apply to the use of wind energy for electricity production in territorial waters and the exclusive economic zone of your jurisdiction? Has your government made a statement or issued a policy regarding the harnessing of wind energy in territorial waters or the exclusive economic zone?

The Scottish Crown Estate Act 2019 sets out a framework for the long-term management of the Crown Estate in Scotland (*https://www.legislation.gov.uk/asp/2019/1/contents/enacted). This Act imposes a number of statutory duties on Crown Estate Scotland, which include an obligation to "maintain and seek to enhance" the value of and income arising from Crown Estate Scotland assets. In the grant of property rights, Crown Estate Scotland must achieve "market value" in the sense of achieving the amount it would be reasonable to pay for the relevant transaction, after "proper marketing" and between parties who have "acted knowledgeably, prudently and willingly."*

See section 2.7 above regarding competitive processes run and to be run by Crown Estate Scotland to allocate leases of areas of the seabed including for offshore wind.

5.5 Are there any other aspects of your local legislation connected with the use of land or other property related matters you would like to add.

No.

6 GRID CONNECTION

6.1 Briefly describe how wind energy farms are connected to the grid. Is there a requirement to connect wind farms to the grid and who is responsible for the connection and the cost of connecting the project to the grid?

The grid in Scotland is interconnected with the grid in England and Wales as a single Great Britain System. The grid consists of a high voltage transmission network (132kV and above in Scotland) and a lower voltage distribution network. The process of connection and the parties involved are different depending on whether wind farms connect to the transmission or

distribution system. Generally, projects under 50MW connect to the distribution system and projects 50MW and above connect to the transmission system.

National Grid Electricity System Operator Limited ("NGESO"), is the transmission system operator responsible for the operation of the national electricity transmission system in Great Britain but it does not own the network.

The onshore electricity transmission network is owned by three transmission owners ("TOs"): National Grid Electricity Transmission ("NGET") (England and Wales), Scottish Power Transmission (central and southern Scotland) and Scottish Hydro Electric Transmission (the north of Scotland).

In addition to the three onshore transmission owners, there are several licensed offshore transmission owners ("OFTOs"), which transport electricity from offshore wind farms to the national grid through high voltage offshore transmission systems (see 6.2 below).

There are 14 distribution network operators ("DNOs") with responsibility for distribution across Great Britain in specific geographic regions. There are two in Scotland, Scottish Power Distribution (central and southern Scotland) and Scottish Hydro Electric Power Distribution (the north of Scotland).

To connect to either level of grid network an application form is submitted to the relevant DNO for a distribution connection or to NGESO for a transmission connection. Technical data needs to be submitted as part of the application to enable the DNO or NGESO and the TO to assess the work required. Application fees must be paid and those are specified in published charging statements by NGESO and the relevant DNOs.

The suite of documentation to be entered into is different for transmission and distribution. For transmission, the generator will enter into a Bilateral Connection Agreement, a Construction Agreement and other ancillary contracts with NGESO. The construction agreement governs the works required to connect and the connection agreement covers the right to be and remain connected. For distribution, the generator will first enter a grid connection offer with the DNO which covers the connection works required and the process up to connection. Around the time of energisation, the generator will then enter into a connection agreement with the DNO. Large plants connecting to the distribution network (classified as >30 MW in central and southern Scotland and >10 MW in the north of Scotland) need both an offer of connection from the relevant DNO and a bilateral agreement with NGESO as they are considered to have a transmission impact.

As part of the grid connection application process, DNOs and/or TOs need to assess the specific works required to connect the relevant generator. They also need to consider any wider reinforcement works required across the relevant networks in order to connect the generator. If a distribution connected project may impact the transmission network (usually larger projects) there is a process to consider wider transmission reinforcement works that may be required to enable that distribution connection.

The generator may be liable for different portions of the cost associated with the works required to connect depending on whether the infrastructure can be used by more than one generator. The costs are advised by the DNOs / TOs as part of the connection process and in accordance

with their published charging methodologies. For distribution connections, the generator pays for the capital costs of the connection works required to connect the generator before the connection is completed. However, there is no ongoing generator use of system charge post connection. For transmission connections, there is limited payment of capital costs associated with the connection but the generator is obliged to pay transmission use of system charges once the connection is operational. In each case, the generator may be required to put in place security for cancellation charges associated with cancelling a grid connection or reducing the capacity of the grid connection. These cancellation charges are designed to reflect that the DNO or TO has incurred abortive costs building the connection infrastructure or may be left with stranded assets that won't be used.

Grid operators have a duty to offer connections and obliged under their transmission/ distribution licences to grant access to the grid without discriminating against certain types of users.

There is no priority of dispatch for wind projects. The grid operators are obliged under their transmission/ distribution licences to connect plants to the grid and despatch generation according to non-discriminatory criteria.

It is worth noting that the grid in Scotland is incredibly constrained due to the volume of renewable energy projects that have connected over the last 20 years. Therefore, grid connection dates for new projects are likely to be 5+ years in the future and risk of delay is high. There is also renewed focus on grid queue management so that projects that have secured connection capacity but then don't progress (e.g. don't obtain planning permission) may lose their grid connection offer and need to reapply.

6.2 Briefly describe grid connection and electricity transfer for offshore wind energy projects.

The process is similar to onshore except in the following respects:

- *All offshore wind farms are connected to an offshore transmission network and then ultimately back to the onshore transmission network and therefore the transmission regime applies.*
- *Under the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/contents), the owner of a generation station is not allowed (long-term) to own or operate transmission assets. Therefore, offshore electricity transmission assets are not owned and operated by the generators. The offshore transmission assets are also not owned by NGESO or the onshore TOs, they are owned by offshore transmission owners (OFTOs). The OFTOs are independent companies selected and appointed by Ofgem through a competitive tender process. OFTOs assume responsibility for the offshore transmission assets and are granted an offshore transmission licence by Ofgem.*
- *Developers of offshore wind farms have, to date, opted to build the offshore transmission network themselves alongside the construction of their projects. Those assets are then put into the competitive tender process once complete and sold to the OFTO. Tenders rounds are run every one to two years depending on the programme*

for construction of the transmission assets and several offshore transmission assets may be included in each round.

7 REVENUES FOR THE STATE AND INCENTIVES

7.1 Please provide information on the fees payable during the application and permission process of wind energy projects, including application fees, other fees payable as a part of the application process and fees necessary to maintain a license or operations.

Consenting:

Application fees depend on the type and size of the development. Fees are reviewed regularly.

- *Onshore planning fees - Current fees are set out in the Town and Country Planning (Fees for Applications) (Scotland) Regulations 2022 - https://www.legislation.gov.uk/ssi/2022/50/contents/made*

- *Fees for applications under the Electricity Act 1989 are currently set out in the Electricity (Applications for Consent and Variation of Consent) (Fees) (Scotland) Regulations 2019 - https://www.legislation.gov.uk/ssi/2019/176/contents/made)*

  The Scottish Government is currently consulting on changes to fees for applications under the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/contents) which may lead to significant increases depending on the size of a development and whether or not it is EIA development:

  https://www.gov.scot/publications/consultation-proposed-changes-fees-charged-applications-under-electricity-act-1989/

- *Marine licence: Fees for Marine Licence applications are set on 1st April each year in accordance with Regulation 6 of the Marine Licensing (Fees) (Scotland) Regulations 2011 (as amended) (https://www.legislation.gov.uk/ssi/2011/78/contents/made) and are linked to the Consumer Price Index for February of the previous financial year. As with s36 consents, they vary according to the type of licence and consent being applied for, and the scale of the proposed works. Current marine licence and S.36 application fees can be found on the Marine Scotland website:*

  https://www.gov.scot/publications/marine-licensing-applications-and-guidance/.

Payments may also be required towards the expense of fixing Scotland's roads in connection with abnormal loads - these are secured via a roads agreement under s96 of the Roads (Scotland) Act 1984 (https://www.legislation.gov.uk/ukpga/1984/54/contents).

Generation Licence

Application fees are set by statute and specified in the application form available on Ofgem's website. The current fee for a generation licence application is £550.

See Section 6 on Grid Connection costs

7.2 How does taxation in the sector work and what taxes are payable by the owner or operator of a wind farm? Please describe and provide information on the applicable tax rate and resource tax.

Land and Buildings Transaction Tax ("LBTT")

- *This is a tax on the acquisition of interests over land in Scotland, including leases. The application of LBTT to leases reflects the principle that the transfer of an effective economic interest via a leasing arrangement should be taxed in a similar way to the transfer of an effective economic interest in a conventional sale. LBTT is payable to Revenue Scotland (the devolved Scottish tax authority) by the tenant under a lease where certain criteria are met*

- *LBTT on leases may be charged on both the rent, and any non-rent consideration given for the lease, such as a premium. LBTT on non-rent consideration is subject to tax at the normal commercial rates. LBTT on rent is calculated on the "net present value" of the actual rents plus any VAT (see below) for each year*

- *further information on how LBTT is calculated in relation to lease transactions can be accessed at: https://revenue.scot/taxes/land-buildings-transaction-tax/lease-transactions.*

Value Added Tax ("VAT")

- *https://www.legislation.gov.uk/ukpga/1994/23/contents*

- *the standard rate of VAT is currently 20%*

- *usually leases provide for the tenant to pay VAT on all payments (including rent) due by the tenant to the landlord under the lease where VAT is properly due on such payments.*

Corporation Tax

- *Most windfarms are owned by special purpose limited companies. The profits made by those companies will therefore be subject to standard corporation tax like any other limited company.*

Non-Domestic Rates (Business Rates)

- *These are a tax on non-domestic properties paid to the local authority to help pay for local services. The valuation methodology for calculating business rates is complex and based on the rateable value of the overall wind farm site. Expert advice from valuers is often sought.*

- *Business Rates do not apply to offshore wind farms.*

7.3 What other revenue (including resource fees, if applicable) is payable to the state or the municipality in terms of the operation of wind turbines? Who benefits from the payment of property fees or other similar fees?

N/A

7.4 Does the government receive lease payments, or other similar payments, for wind turbines build on state owned land?

If the government is the owner of land on which a wind farm is built then it would have been able to negotiate a rent for the lease of that land in the same way as a private landowner.

7.5 Does the government or municipalities offer any kind of support mechanism for wind energy projects? This could include tax deduction or deduction of other payable fees or discount on import duties for wind turbines.

Subsidy support mechanisms have been made available for wind energy projects by the UK government. These apply equally to projects in Scotland.

Previously there were two subsidy regimes:

- *the small-scale Feed-in Tariffs ("FITs") (introduced on 1 April 2010 and now closed to new applicants). The main legislation is the Feed-In Tariffs Order 2012 (https://www.legislation.gov.uk/uksi/2012/2782/contents). This supported small scale projects (generally <5MW) by paying a generation tariff per kWh of electricity generated from a project. The generation tariff was paid in addition to export revenue received through the sale of power. There was also an option for the generator to choose a fixed price export tariff rather than a market price for the sale of its power. The duration of support was 15 years from commissioning and so some operational projects will still receive FITs until their support comes to an end.*

- *the Renewables Obligation ("RO") (now closed to new projects from 2017). The main legislation is the Renewables Obligation (Scotland) Order 2009 (https://www.legislation.gov.uk/ssi/2009/140/contents). It provided support to generators for 20 years and so operational projects are still receiving RO support.*

    - *The "renewable obligation" is placed on electricity suppliers. Suppliers are required to supply a certain percentage of electricity from a renewable source. The percentage is set each year by UK Government and is set high enough so that it cannot be achieved.*

    - *Suppliers satisfy the renewables obligation by delivering Renewable Obligation Certificates (ROCs) to Ofgem equivalent to the required percentage OR by paying a set buy-out price for any shortfall in ROCs. The buy-out price is set by Ofgem.*

    - *Generators of eligible renewable electricity receive ROCs for each MWh electricity generated (the number depends on the technology). ROCs are sold to suppliers (usually through a PPA) so that the suppliers can use them to satisfy their obligation.*

    - *The RO works because the percentage is set at a level where the supply of ROCs is lower than the demand for ROCs which means that the value of a ROC should be around the value of the buy-out price. The effect for generators is that they effectively receive a top-up payment to the price of the electricity they sell.*

The current main subsidy regime in the UK is Contracts for Difference ("CfDs")

- *The base legislation for CfDs is the Energy Act 2013 (https://www.legislation.gov.uk/ukpga/2013/32/contents) plus various subsidiary regulations.*

- *CfDs are private law contracts between a generator and the Low Carbon Contracts Company (LCCC) – a 100% government owned company.*

- *The CfD contract pays a top-up to a reference market price up to the Strike Price. Where the market price is below the Strike Price LCCC pays the generator. Where the market price is above the Strike Price the generator pays LCCC. NB: The market reference price is based on a wholesale index – not on actual PPA price. Given the level of current wholesale electricity prices, many generators with CfD contracts are currently paying money back to LCCC.*

- *The duration of support is 15 years from commissioning.*

- *CfDs are allocated through an allocation and auction process. To qualify for the allocation process projects need to have secured planning consents and grid connection. If the value of qualifying projects exceeds the available budget for the allocation round then a competitive auction is triggered. Generators bid their proposed strike price in the auction. The auction is pay as clear and the auction closes /clears at the strike price where all projects can be accommodated in the budget.*

Business Rates Relief

Discounts for business rates are available for small onshore wind projects that have community investment. The level of discount tapers from 100% down to 0% depending on the rateable value of the site.

7.6 Other information on state or municipality revenue you would like to add.

N/A

8 TYPE OF LITIGATION RELATED TO WIND POWER PROJECTS

8.1 Please describe the process of disputes related to the development of wind energy projects. What are the local or administrative appeal routes available for those who disapprove of a prospected project and at what time shall they raise their concerns? Does the legislative framework encourage third parties or the general population to participate in disputes?

Planning permission *- Applicant can appeal against a decision to refuse permission or against any of the conditions attached to a grant of permission. Appeal is made to and determined by either a local review body (a panel of councillors from the local authority) or to the Scottish Ministers. The appeal route depends on the size of the development and who determined the application.*

S36 consent (onshore) *- The decision of the Scottish Ministers is final, although it is subject to the right of any aggrieved person to apply to the Court of Session for judicial review of the decision on relevant grounds on which an application for judicial review may be founded (illegality, irrationality, procedural impropriety etc). Time limit for judicial review is 3 months.*

S36 consent (offshore) *- There is a statutory right of appeal to the Court of Session for aggrieved parties in respect of Scottish Ministers' decisions under s36 of the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/section/36) in relation to generating station in relevant waters, to question the validity of the decision. The application must be made within 6 weeks beginning with the date on which the is taken. Grounds are limited: (i) decision is not within the powers of the Scottish Ministers, (ii) one or more of the relevant requirements have not been complied with in relation to the decision.*

"relevant waters" are defined in s36D(6) of the Electricity Act 1989 (https://www.legislation.gov.uk/ukpga/1989/29/section/36D) as:

a. *waters in or adjacent to Great Britain which are between the mean low water mark and the seaward limits of the territorial sea; and*

b. *waters in the area designated by the Renewable Energy Zone (Designation of Area) (Scottish Ministers) Order 2005 as the area in which the Scottish Ministers are to have functions.*

There is no third party right of appeal against a grant of a permission / licence / consent in Scotland, but parties with sufficient interest may challenge the decision to grant a permission / consent / licence by way of judicial review in court. There have been several judicial reviews of wind farm consents over the years, with mixed success.

Marine Licence *- Any applicant is entitled to appeal against a decision not to grant a licence or against any of the conditions attached to a licence for both the Scottish inshore and offshore regions. Appeal is by way of summary application to the Sheriff Court. Deadline for lodging an appeal is 21 days after intimation of the decision in question. The Marine Licensing Appeals (Scotland) Regulations 2011 apply. Rules applicable to the summary application process can be found on the Scottish Courts website https://www.scotcourts.gov.uk/.*

8.2 Are there special litigation proceedings available in your jurisdiction in relation to wind power projects?

No other than as mentioned in 8.1.

8.3 Is the development or operation of wind power projects often disputed, by either the public or other entities?

Yes, particularly onshore wind.

Refusals are almost always challenged by applicants.

Disputes - i.e. judicial review of permissions / consents / authorisations - by third parties are less common and have had low success rates overall. Judicial review challenges have been brought

by a variety of stakeholders, including statutory consultees such as the Royal Society for the Protection of Birds.

8.4 Do the same courts have jurisdiction in litigation relating to onshore and offshore projects?

Yes, jurisdiction is determined by location and value of the dispute not by the technology.

9 DIFFICULTIES ENCOUNTERED IN THE DEVELOPMENT OF WIND POWER PROJECTS (LACK OF SOCIAL ACCEPTANCE, ACCIDENTS, INEFFICIENT SUPPORT MECHANISM, STATE AID ISSUES ETC).

9.1 Briefly describe historical difficulties encountered in the development of wind projects in your jurisdiction and the current standing of future development of wind energy project.

[*This could include, for example, lack of social acceptance or governmental support. Please describe briefly current public opinion on further development of wind farms. Is there a public acceptance and does in vary between onshore and offshore wind farming?]*

See response to 8.3 on local/ environmental objections. Public acceptance is difficult to assess generally although various studies and surveys have been done over the years. Generally, surveys show that public acceptance and support for both onshore and offshore wind farms is consistently high but that support can diminish when a project is in close proximity to a community.

Historical consenting issues have included:

- *Lack of knowledge / expertise / familiarity with technology*
- *Under-resourced local authorities*
- *Planning fees are not ring-fenced, which has and continues to cause tension between developers and decision-makers (particularly local authorities struggling with resources)*
- *Technical nature of EIA / HRA - mitigated to extent by non-technical summaries which accompany EIA Reports*
- *Knowledge and expertise of decision makers (especially local planning authorities) has not kept pace with technological advances, leading to slow decision making*
- *Local politics.*

See 9.2 on Subsidy Support.

9.2 Are current support mechanisms sufficiently supportive of the development of wind energy in your jurisdiction, as of today? Has there been a call for changes or updates to the support mechanisms framework to better support developers or electricity producers?

[A brief description of the support mechanism would be helpful, where applicable, to understand the support mechanism structure.]

See section 7.5 for a description of the available support mechanisms, including CfD.

The introduction of electricity subsidy schemes (funded by electricity consumers) is reserved to the UK Government. Scottish Government has limited powers to award grants from its general budget. Generally, the UK Government is not as supportive of onshore wind (for political reasons) as the Scottish Government. This meant that onshore wind was excluded from the second and third allocation rounds for CfD support in 2017 and 2019. A judicial review of the decision to exclude onshore wind was launched in 2019 but ultimately withdrawn as the case settled. Onshore wind was included in the fourth allocation round for CfD support (AR4) which is live now.

The levels of subsidy provided by the CfD are generally considered to be low for onshore and offshore wind projects because they are well established technologies. It is likely that the pricing awarded for wind projects in AR4 will be lower over the life of the projects than selling the power on the open market. However, the CfD provides price certainty and therefore enables projects to secure large volumes of institutional investment seeking long-term, stable returns. Additional ring-fenced budget has been made available in AR4 for floating offshore wind so that it has the opportunity to secure higher pricing given that the technology is less established.

9.3 Have there been any state aid related issues in your jurisdiction in respect of wind energy projects?

The subsidy support mechanisms deployed in the UK over the last 20 years have all received EU State Aid approval.

9.4 Are any litigation cases or proceedings currently taking place that could affect the future of wind energy in your jurisdiction?

No. See 9.2 for historical challenge to the subsidy support regime.

9.5 Any other information or clarification you would like to make in relation to the harnessing of wind energy in your jurisdiction?

N/A

VIÐAUKI 5. NÝJA SJÁLAND – SVÖR VIÐ SPURNINGALISTA

1 STATISTICAL INFORMATION

Total installed capacity of electricity production (GWh)	• The total installed capacity of electricity production in New Zealand is 9.758 GWh.
Proportion of electricity produced from renewable energy resources (% of GWh)	• The proportion of electricity produced from renewable energy resources in New Zealand is 82%.
Installed capacity of electricity produced from wind energy (GWh), distinguishing onshore and offshore wind power capacities.	• New Zealand has an installed wind generation capacity of 0.689 GWh. • New Zealand has no offshore wind power facilities. Therefore, this capacity is only attributed to onshore wind power facilities.
Proportion of electricity produced from wind energy of total installed capacity (% of GWh), distinguishing onshore and offshore wind power capacities.	• The proportion of electricity produced from wind energy of total installed capacity is 7%. • New Zealand has no offshore wind power facilities. Therefore, this proportion is only attributed to onshore wind power facilities.
What year did production of electricity from wind energy begin in your jurisdiction?	• In 1993, New Zealand's first wind farm (a single small turbine) began generating electricity.
Number of wind turbines currently in operation, distinguishing onshore and offshore facilities	• New Zealand has 17 wind farms currently in operation, comprising 490 turbines. • New Zealand has no offshore wind power facilities. The 17 wind farms are all onshore facilities.
Expected growth of electricity production from wind energy in the next 5 years in GWh, distinguishing onshore and offshore facilities	• The New Zealand Government has not published figures on the expected growth of electricity production from wind energy. • However, the Government has a target of reaching 100% renewable electricity generation in New Zealand by 2035 (in years

	when rainfall and inflows into hydro lakes are considered normal). The Government is currently undertaking a work programme to support this goal. Therefore, we can expect strong growth in electricity production from wind energy in the next 5 years. • The aspiration of the New Zealand Wind Energy Association (an industry association) is that wind power will account for around 20% of New Zealand's electricity generation by 2035.

2 INSTITUTIONAL, REGULATION AND ADMINISTRATIVE MATTERS

2.1 Is there a governmental policy in place, or any kind of government framework, concerning the harnessing of wind energy in your jurisdiction? If so, briefly describe the object of the government policy and main provisions.

• The current Government has a policy to set a 100% renewable electricity target for 2030 and will review progress in 2025.

• There is general government policy in place to assist the New Zealand energy sector to transition to a net zero carbon emissions by 2050, which will include the harnessing of wind energy.

○ The New Zealand Energy Efficiency and Conservation Strategy provides general direction on converting from fossil fuels to renewable energy in New Zealand. This Strategy expires in mid-2022 and a new strategy is being developed. ○ The Emissions Reduction Plan sets out the Government's approach to reducing greenhouse gas emissions. This Plan includes a key action to investigate the need for electricity market measures to support the transition to a highly renewable electricity system.

• There is also the National Policy Statement for Renewable Electricity Generation 2011 ("**NPS-REG**") which sets out objectives and policies for renewable energy generation, including wind, under the Resource Management Act 1991 ("**RMA**") (see paragraph 2.2 below). The NPS-REG is intended to provide greater certainty for the development of renewable energy resources in New Zealand and to assist the Government to reach a target of 90% of electricity from renewable sources by 2025.

2.2 Please provide a list of applicable legislation and regulations governing the use of wind energy for electricity production, distinguishing onshore and offshore wind power projects if relevant.

We kindly ask you to provide a link to an online version of the applicable legislation and where and if applicable, a reference to the applicable chapter and/or articles (where only specific provisions of the Act apply to wind energy projects).

[*This could include acts governing the use wind of energy for electricity production, general provisions on electricity production, connection to the grid, specific protocols on wind turbines and their qualifications, land registration, planning and permitting, environmental impact assessment, etc.*]

- The RMA establishes a regulatory framework that controls the use of land, air and water (within 12 nautical miles from the coast) in New Zealand. Regional and district plans promulgated under the RMA by district, regional and territorial authorities (ie councils) operate as "rulebooks" that specify objectives, policies and rules relating to matters such as land use, natural hazards, biodiversity, use of contaminated sites and the use of hazardous substances. Plans categorise activities as either permitted, controlled, restricted discretionary, discretionary, non-complying or prohibited. Permitted activities can be undertaken "as of right", whereas other activities require a "resource consent" to be obtained from the relevant authority for the activity to be carried out lawfully (with the exception of a few activities classified as prohibited, for which resource consent cannot be applied for or obtained). Resource consents include "land use consents" (issued by district or regional councils, as relevant), "subdivision consents" (issued by district councils), "coastal permits" (issued by regional councils), "water permits" (issued by regional councils), "discharge permits" (issued by regional councils).

- National Policy Statement for Renewable Electricity Generation 2011. See paragraph 2.1 above.

- The Electricity Industry Act 2010 provides a governing framework for the electricity sector industry participants, which includes retailers, generators, distributors, and line owners, among others. It does not contain specific provisions for wind generation.

- The Electricity Industry Participation Code ("**Code**") sets out the responsibilities of all industry participants, and provides detailed rules that govern the physical interaction between transmission, distribution and generation, and operation of the wholesale electricity market. Recognising that wind power generation is more intermittent than other sources of electricity generation, special rules have been developed to facilitate its participation in the wholesale market. For example, owners of intermittent generating stations must provide the system operator with maximum output capacity measurements and are subject to different requirements in relation to bids and offers for electricity.

- The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 ("EEZ Act") manages the effects of activities in the exclusive economic zone ("EEZ") (12 to 200 nautical miles from the coast of New Zealand) and in / on the continental shelf. Activities within this area) are either permitted, discretionary (notified or non-notified or prohibited. There are currently regulations in place including the Exclusive Economic

Zone and Continental Shelf (Environmental Effects - Discharge and Dumping) Regulations 2015 the Exclusive Economic Zone and continental Shelf (Environmental Effects - Permitted Activities) Regulations 2013 which will also be relevant to activities in the EEZ and in / on the continental shelf.

Several other pieces of legislation may apply to offshore developments, including:

- The Crown Minerals Act 1991 which regulates offshore petroleum activities which may also have implications for offshore wind development.
- The Marine and Coastal Area (Takutai Moana) Act 2011 ("**MACA**") given that much of New Zealand's waters are subject to claims of customary marine title ("**CMT**").
- The Marine Mammals Protection Act 1978 which provides for the protection, conservation and management of marine mammals within New Zealand.

2.3 Identify the governmental and administrative bodies connected to wind energy projects and briefly explain their role and activities. We kindly ask you to provide a link to the website of the applicable entity, where applicable.

[*Please provide information on involvement throughout the lifetime of a wind energy project, from possible exploration, throughout electricity production and demolishing of wind turbines. This could include a licensing authority, municipalities, sub-committees of municipalities, the government, competition authority etc.]*

Local government (eg regional and district councils) are responsible for making decisions regarding RMA consent approvals. These consents must be obtained before a wind farm can be developed. The councils would be responsible for monitoring the wind energy project including its decommissioning.

The Environment Protection Authority ("**EPA**") is a Crown entity responsible for regulating a range of environmental functions / matters such as under the Resource Management Act 1991 and EEZ Act. In particular, it provides administrative support to the decision-maker for offshore wind farm applications in the exclusive economic zone.

The Ministry for the Environment is the principal advisor to the government on environmental matters within New Zealand and on international matters that affect New Zealand's environment. The Ministry is focused on developing and providing a national environmental management system, including laws, regulations (charged specifically with developing regulations under the EEZ Act), national policy statements (like the NPSREG) and national environmental standards.

The Ministry of Business, Innovation and Employment ("**MBIE**") plays a central role in shaping and delivering a strong economy by delivering policy, services, advice and regulation to support business growth. MBIE is currently responsible for investigating the regulatory settings for offshore wind with a goal of providing a more certain consenting process that balances the impact of offshore renewable investment with other priorities such as fisheries and marine protection.

The Electricity Authority is an independent Crown entity responsible for overseeing and regulating the New Zealand electricity market. It develops, administers and enforces the rules of the electricity industry, including those relating to generation, transmission, system operation, security of supply, market arrangements, metering, distribution and retail. These rules are contained in the Electricity Industry Participation Code 2010, which sets out obligations and responsibilities of industry participants, including those involved in the generation of energy via wind farms. Among other things, generators connection to the grid will have technical and engineering obligations as "asset owners", which the Authority enforces. The Authority is also responsible for regulating Transpower's transmission pricing methodology (allocation of charges) under the Code (as per below, the Commerce Commission regulates Transpower's overall revenue).

Transpower is the state-owned enterprise responsible for electricity transmission in New Zealand. Transpower also functions as the System Operator, managing the real-time operation of the grid and the physical operation of the electricity market. Although it does not have a regulatory role as such, if a party intends to connect their windfarm to the grid it will need to obtain Transpower's agreement. If the generation is to be connected to a local distribution network, it may still need to provide information to Transpower if the generation will impact on system management. Transpower recommends that those exploring generation projects engage with it early on in a proposal to ensure all phases of the connection process run smoothly.

The Commerce Commission is New Zealand's competition and consumer law regulator. Given that electricity transmission and distribution businesses are natural monopolies, the Commerce Commission has a specific role to play in this industry. It is the regulator responsible for overseeing Transpower and distribution companies, including overseeing investments, charges and revenue in each pricing year.

The Climate Change Commission is an independent Crown entity that was established to provide independent expert advice to the Government on reducing emissions, adapting to the impacts of climate change, and to hold the Government to account on climate action, and its goals in this area. The advice it provides to the Government will likely be influential over future regulation that may apply to participants in the electricity industry.

The Department of Conservation is a government department charged with the conservation of New Zealand's natural and historical heritage. It enforces compliance with the Conservation Act 1987, the Marine Mammal Protection Act 1978 and other laws that protect biodiversity. It can become involved in wind farm projects due to potential impacts to wildlife including birds and marine mammals.

2.4 Please provide information on the involvement of other private entities, to the extent possible.

- Generation can also be connected to 29 local distribution networks. There are various ownership models but all are, in essence private entities. Part 6 of the Code provides a process for generators connecting to distribution networks, with the aim of facilitating access.

- Mana whenua / iwi, the indigenous people (Māori), who have particular cultural, spiritual, historical and traditional rights over land will have involvement with the consenting of wind energy projects in New Zealand.

- Neighbouring individuals and community groups are commonly participants in the consenting of wind energy projects in New Zealand. Their level of involvement will depend on consultation undertaken by the wind farm proponent and the type of notification of the resource consent application. Please see paragraph 4.4.

- For offshore wind farms, persons who have existing oil exploration permits, operate in shipping lanes, or have interests in fisheries in the relevant area will also likely be involved in the consenting of wind energy projects in New Zealand.

2.5 Has the government and/or local municipalities pre-defined areas where wind energy can be harnessed, at sea or on land? Please describe the decision making behind the location of a wind energy project. Is there a framework in place governing possible locations of wind farms? What role due municipalities have in terms of allowing or limiting use of land?

- There are no pre-defined areas, at sea or on land, for the harnessing of wind energy. A project proponent will make a private decision on the location of its project taking into account various factors, including risks with obtaining consents.

- There is no specific framework in place governing locations for wind farms. Instead, areas of districts and regions are "zoned" by councils and particular controls apply to activities in each zone which can trigger the requirement for "resource consent". Onshore, rural zoned land is generally considered the most appropriate location for wind farms which will signal where councils consider wind farms could be developed. Councils may also introduce specific controls over particular land, such as outstanding natural landscape overlays, which may mean those locations are less suitable for a wind farm / may be subject to more onerous consenting requirements.

2.6 In terms of offshore windfarms, have special areas been defined by the government and/or municipalities for future projects? If applicable, briefly describe how those areas were nominated. Can offshore wind farming be established outside of areas previously highlighted by the government?

There are currently no areas defined for future offshore windfarms in New Zealand. However, MBIE is currently responsible for investigating the regulatory settings for offshore wind in New Zealand, which may identify special areas for offshore windfarms.

2.7 Does the government call for tenders for wind energy projects? If so, briefly describe the tendering procedure. Can a developer, on his own initiative, reach out to the government or municipality and ask to develop a wind energy projects on a certain area of land or sea?

- The government do not currently call for tenders. However, this position might change with the potential introduction of a regulatory framework for offshore windfarms. Please see paragraph 2.6.

2.8 Other information concerning the institutional or legislative framework governing wind energy projects that you would like to add.

- A new regulatory framework for offshore wind farms could be developed in the next 18 months. See paragraph 2.6 above.

3 PERMITTING, LICENSES AND APPLICATIONS

3.1 Please provide a general description of the licensing procedure for wind energy projects (distinguishing onshore and offshore wind power projects if relevant) as well as a list of the licenses required, from possible exploration throughout the lifetime of a project.

[*Please provide information on the applicable governmental bodies at each stage and types of licenses.]*

- In New Zealand, there is no specific licensing scheme managing the establishment and operation of wind farms. Generators must register as industry participants with the Electricity Authority, but no approval is required. Onshore wind farm projects (and projects within 12 nautical miles of the coast) require resource consent under the RMA, and use is controlled through rules in regional and district plans. Offshore wind energy projects require marine consent under the EEZ Act. Other licences that may be required to develop a wind energy project include:
    - Building consent under the Building Act 2004 to authorise construction of structures (eg wind turbines).
    - Heritage authorities from Heritage New Zealand (Pouhere Taonga) to allow heritage (pre-1900) features to be modified or destroyed.
    - Access agreements with landowners.
    - Easements to allow for services over private land, such as electricity transmission.
    - OIO approval to allow overseas companies to purchase or lease land.

3.2 Please provide a description of each license required, documents to be submitted and the general criteria for obtaining a license. Please include information on the duration of each type of license.

- Resource consents will be required to construct, operate and maintain a wind farm in New Zealand. An application for resource consent must be made in the prescribed form and manner and include an assessment of environmental effects ("**AEE**") in accordance with the RMA. In considering an application, the consent authority must have regard to: ○ any actual and potential effects on the environment of allowing the activity; ○ any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity;
    - relevant provisions of planning documents (eg regional and district plans); and ○ any other matter the consent authority considers relevant and reasonably necessary to determine the application.

- Generally, and unless otherwise specified in the relevant consent, a district land use consent (a type of resource consent) granted under the RMA runs with the land and will not expire, see paragraph 4.4. Regional resource consents (eg discharges to land from earthworks) are granted for a specified term (not exceeding 35 years) and are granted to a specific person or entity, and may only be relied on by them. Resource consents will lapse if not given effect to. The default lapse period in the RMA is 5 years, however, these can be longer, and an applicant can apply to extend the lapse period. Please see paragraph 4.1 below for further detail on an AEE and paragraph 3.4 for the duration of a licence.

- To obtain a marine consent under the EEZ Act for an offshore wind farm, an application must be made in the prescribed form and manner and include an impact assessment in accordance with the EEZ Act. The marine consent authority must have regard to:

    - any effects on the environment or existing interests of allowing the activity including cumulative effects;
    - the effects on the environment or existing interests of other activities undertaken in the area covered by the application or in its vicinity;
    - the importance of protecting the biological diversity and integrity of marine species, ecosystems, and processes;
    - the economic benefit to New Zealand of allowing the application; ○ the efficient use and development of natural resources; ○ the nature and effect of other marine management regimes; ○ best practice in relation to an industry or activity;
    - the extent to which imposing conditions might avoid, remedy, or mitigate the adverse effects of the activity;
    - relevant regulations and other applicable law; and ○ any other matter the marine consent authority considers relevant and reasonably necessary to determine the application.

A marine consent may have a duration of up to 35 years. Marine consents contain lapse dates, by which the consent must be exercised (ie the project constructed). The default lapse period in the EEZ Act is 5 years, however, these can be longer and an applicant can apply to extend the lapse period. Please see paragraph 4.1 below for further detail on the impact assessment and paragraph 3.4 for the duration of a licence.

3.3 Are there any pre-emptive rights secured within the licensing framework, such as a pre-emptive right to move over from a feasibility phase to a utilisation phase. Does a license automatically convert into a different type of license?

- As New Zealand does not have a specific licensing regime there are no pre-emptive rights.

3.4 Briefly describe the encumbrances in place for the license holder to keep a license, once granted.

- Generally, and unless otherwise specified in the relevant consent, a district land use consent runs with the land (ie anyone can rely on it if they have the necessary property rights) and does not expire. However, consents for wind farms will often be granted subject to a condition restricting reliance on the consent to the applicant only. This means that it does not automatically run with the land (and benefit the underlying landowner).

- Regional land use consents (eg discharges to land from earthworks) are granted for a specified term. This must not exceed 35 years. If no term is specified in the consent the default term is 5 years. Regional resource consents are granted to a person or entity and may only be relied on by them, unless transferred.

- A marine consent is granted for a specified term. At or near the expiry of that term, a consent holder may seek to renew the consent, but there is no general protection in place to guarantee renewal. If a new consent application is made six months before expiry of the existing consent the holder can rely on the existing consent until a new consent is granted or refused and all appeals are resolved.

3.5 What actions of the license holder would warrant a revision of the license? Does the license granting authority have the power to revoke or terminate a license during the term of the license? If yes, what actions of the license holder would warrant a revisions or termination of the license.

- In relation to the RMA and EEZ Act consenting regimes, consent authorities / the EPA have the ability to change or review conditions on resource consents / marine consents. When undertaking such a review, a consent authority / the EPA can cancel an entire resource consent if there are significant adverse effects on the environment as a result of exercising the consent. Where a consent authority / EPA finds that the conditions of the resource consent are being breached, the RMA / EEZ Act provides for a range of enforcement powers and penalties.

3.6 Other licensing information you feel would be valuable to understand the licensing structure of your jurisdiction.

- The New Zealand Government is currently in the process of preparing legislation to repeal the RMA and replace it with new legislation, known as the Natural and Built Environments Act ("**NBEA**") (two adjacent and related pieces of environmental legislation are also proposed, being the Strategic Planning Act and the Climate Adaptation Act). The NBEA and associated legislation will contain environmental limits or "bottom lines", including in relation to water, with the intention that activities cannot infringe these limits. Certain 'outcomes' will also be legislated.

- In accordance with the Civil Aviation Act 1990 ("**CAA**"), wind farms and wind monitoring masts need to be located so as not to cause a hazard to aircrafts. Under Part 77 of the Civil Aviation Rules, if the proposed wind farm meets certain criteria, developers will need to seek a determination from the Manager Aeronautical Services that no hazards in navigable airspace will arise.

- The Conservation Act 1987 applies to windfarms that are located on conservation land. Under the Conservation Act 1987, if a developer intends to use or erect a structure on conservation land, a developer must apply to the Minister of Conservation for a concession in the form of a lease, license, permit or easement for an activity on conservation land. For a concession application relating to a wind farm, the Minister is generally required to give public notice if the Minister forms an 'intention to grant' the concession. Any person may make a submission on a concession application that has been publicly notified. The Minister may impose conditions on any concession granted.

- The Heritage New Zealand Pouhere Taonga Act 2014 ("**NZPTA**") applies when applicants seek to modify or destroy an archaeological site, regardless of any resource consent requirements. An archaeological site is defined under the NZPTA as being any place in New Zealand that was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where that wreck occurred before 1900, and provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand and includes a site for which a declaration is made under section 43 of the NZPTA. Unless an authority is granted under the NZPTAin respect of an archaeological site, no person may modify or destroy, or cause to be modified or destroyed, the whole or any part of that site if the person knows, or ought reasonably to have suspected, that the site is an archaeological site.

- Under the Wildlife Act 1953, the Department of Conservation will generally require an evaluation of any impact of wind farm development on threatened species and/or impacts on large numbers of unthreatened species. The Wildlife Act 1953 and RMA, require wind farm developers to avoid, remedy or mitigate effects on indigenous wildlife. In the context of offshore windfarms, this may include ensuring passage for migratory fish species.

- The MACA provides legal recognition and protection of customary interests in the coastal marine and coastal area through protected customary rights ("**PCR**") and CMT. Local authorities are prohibited from granting a resource consent for an activity (such as a wind energy project) that will, or is likely to, have more than minor adverse effects on the exercise of a PCR unless the PCR group gives its approval. Further, the rights conferred by CMT include the right to give/decline permission for activities being carried out under a resource consent, such as wind energy project, in the CMT area.

- The Marine Mammal Protection Act 1978 requires permits to be obtained if people want to undertake commercial activities involving marine mammals, or people want to take, hold, import or export marine mammals. Take includes actions that harm, harass, injure and attract marine mammals.

4 ENVIRONMENTAL ISSUES

4.1 Briefly describe how environmental impact assessments, or other environmental requirements, affect the development of wind energy projects. Under what circumstances

and at what stage of the project is there a requirement to perform a formal environmental impact assessment?

[*Is there a flat obligation to perform an environmental impact assessment or can, for example, the size of the wind farm impact the obligation. Briefly describe the process of the environmental impact assessment, the governmental bodies or authorities involved, appeal deadlines etc.*]

RMA

An AEE is required to be submitted to the consent authority with applications for resource consent under the RMA. The AEE must include the following information:

- if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity;
- an assessment of the actual or potential effect on the environment of the activity;
- if the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use;
- if the activity includes the discharge of any contaminant, a description of the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and any possible alternative methods of discharge, including discharge into any other receiving environment;
- a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect;
- identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted (however, this does not place an obligation on the applicant to consult);
- if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved; and

- if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).

An AEE must address the following matters:

- any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects;
- any physical effect on the locality, including any landscape and visual effects;
- any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity;

- any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations;
- any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants; and
- any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.

If an application is publicly or limited notified, then a landowner or other affected person may lodge a submission and be heard on the application. In relation to an appeal for a decision made on a resource consent under the RMA, the applicant or submitter on such a consent may appeal to the Environment Court (de novo hearing) within 15 working days of notice of the decision. The decision of the Environment Court may then be appealed on points of law only to the High Court and higher courts. Please see paragraph 4.4 and 5.4.

EEZ ACT

An impact assessment is required to be submitted to the EPA with applications for marine consent under the EEZ Act. The impact assessment must include the following information, in such detail that corresponds to the scale and significance of the effects that the activity may have on the environment and existing interests:

- describe the activity (or activities) for which consent is sought; and
- describe the current state of the area where it is proposed that the activity will be undertaken and the environment surrounding the area; and
- identify persons whose existing interests are likely to be adversely affected by the activity; and
- identify the effects of the activity on the environment and existing interests (including cumulative effects and effects that may occur in New Zealand or in the sea above or beyond the continental shelf beyond the outer limits of the exclusive economic zone); and
- identify the effects of the activity on the biological diversity and integrity of marine species, ecosystems, and processes; and
- identify the effects of the activity on rare and vulnerable ecosystems and habitats of threatened species; and
- describe any consultation undertaken with persons described in paragraph (c) and specify those persons who have given written approval to the activity; and
- include copies of any written approvals to the activity; and
- specify any possible alternative locations for, or methods for undertaking, the activity that may avoid, remedy, or mitigate any adverse effects; and
- specify the measures that could be taken to avoid, remedy, or mitigate the adverse effects identified (including measures that the applicant intends to take).

If the application is for a notifiable activity, the EPA will notify the application and any person may make a submission and be heard on the application. The applicant or submitter on such a consent may appeal a decision made on a marine consent under the EEZ Act to the High Court on questions of law only regarding the grant an application for a consent; or refusal of an application; or imposition any conditions on a consent. Such appeal must be lodged within 15 working days after notification of the decision. Please see paragraph 4.4 and 5.4.

- Please also see paragraph 3.2.

4.2 Please provide information on other applicable legal requirements relating to the effects wind energy projects can have on their environment, such as specific provisions in relation to wildlife protection (in sea or at land), noise pollution or visual pollution.

- Please see paragraph 3.6 for a summary of the Wildlife Act 1953 and Marine Mammals Protection Act 1978.

- Provisions in district and regional plans often contain provisions relating to noise and visual effects which will be required to be addressed in the AEE and application for resource consent.

- Private remedies available to injured plaintiffs in relation to noise and visual effects are provided by the common law tort of nuisance. Nuisance is available when the defendant uses their own land to carry out an activity that causes something harmful or offensive to affect the land of a neighbour. The activity may either cause actual damage or may unreasonably interfere with the plaintiff's enjoyment of their land. The liability is strict and the harm caused must be foreseeable.

4.3 If applicable, describe other environmental or social requirements or obligations applicable to wind energy projects, distinguishing onshore and offshore wind power projects if relevant.

- As mentioned, where mana whenua / iwi, the indigenous people (Māori), who have particular cultural, spiritual, historical and traditional rights over land there will be social requirements, and legislative requirements, to engage with them in the consenting of wind energy projects in New Zealand. These considerations apply to both onshore and offshore wind projects. Please see paragraph 2.4.

4.4 How can the public participate in wind energy projects and their development? At what stages can the public raise their concerns, if any, and under what circumstances?

- In terms of the resource consenting process, a consent authority must publicly notify an application for resource consent if the activity will have, or is likely to have, adverse effects on the environment that are more than minor. Where an application is not publicly notified, the consent authority must give limited notification of the application to any "affected person." If an application is publicly or limited notified, then a landowner or other affected person may lodge a submission and be heard on the application. Given the nature and profile of wind energy activities, we would expect the activities to be limited notified or publicly notified.

- In terms of the marine consenting process, activities are either non-notifiable or publicly notifiable under the EEZ Act. If the application is for a notifiable activity, the EPA will notify the application and any person may make a submission and be heard on the application. Given the nature and profile of wind energy activities, we would expect the activities to be publicly notifiable.

5 PROPERTY ISSUES

5.1 Provide general information on access to land of a third party. Is there a requirement to seek consent of a landowner in the application process of a wind energy project?

- New Zealand uses the Torrens land registration system under which 'title' to land is indefeasible which means the government guarantees the accuracy of title and it can't be overturned or put aside by competing claims. Most parcels of land have their own titles showing dimensions and location, ownership and other interests affecting the land.

- From a property rights perspective, with limited exceptions, a registered owner of land has the right of exclusive occupation and enjoyment of their land. A third-party wind farm operator would need to obtain the landowner's consent to undertake a wind energy project on the landowner's land.

- Obtaining consent from a landowner would typically involve negotiation of suitable property rights which may include the granting of a lease or licence over the land and/or the grant of easements (such as rights of way and rights to convey electricity).

- Leases and Easements are interests in land that may be registered on the relevant record of title. In New Zealand all records of title are publicly searchable via Land Information New Zealand. Registration gives notice to any future purchasers who will take the title to the land subject to the registered interests and must comply with the obligations of the lessor or grantor as applicable.

- The Public Works Act 1981 ("**PWA**") provides the Crown with the statutory authority to compulsorily acquire land for a public work in certain circumstances in accordance with

the Act. The Crown, local authorities, and certain network utility operators (which the Minister for the Environment has classified as a "requiring authority" under the RMA) are the only organisations who can use the PWA. To date we are not aware of the PWA being used to secure land for wind farm development.

5.2 How would the landowner be compensated for the use of land? Would he be entitled to any further payments during the lifetime of a wind energy project?

- The terms of an access agreement or a lease or licence and any obligations on a lessee / licensee to pay rent or royalties are commercial terms negotiated by the lessor / licensor and the lessee / licensee to the relevant agreement.

- If a wind farm operator is interested in assessing the feasibility of a project, they will typically enter into an access agreement with the landowner which will detail the proposed programme of investigation work, duration of work to be carried out, the likely effects on the land, safeguards including health and safety responsibility and compensation payments.

- If a landowner and wind farm operator proceed to enter into long term arrangements, then the arrangements will address compensation for the duration of the wind energy project. Common compensation mechanisms include: ○ a lump sum payment upfront; ○ a fixed annual payment per turbine; and ○ a variable payment based on electricity generation.

- A base rental can be increased periodically using a fixed percentage, CPI or an index linked to the electrical sub-groups administered by Statistics New Zealand. This base rental can be supplemented with turnover royalty payments. Turnover royalty payments are made with reference to the amount of electricity produced by each turbine within a set period.

5.3 What are the rights of landowners of private land? Can they delay or even prevent development of wind energy projects on his or her land?

- A private landowner can prevent the development of wind energy projects on their land by withholding their consent. Property rights are a separate issue from resource consenting. Before a resource consent holder is able to do any physical works on private land, the consent holder must reach an agreement with the landowner regarding access to the land. For the avoidance of doubt, no exploration or exploitation of resources on private land is possible in the absence of approval from the landowner (see paragraph 5.1 above). Please also see paragraph 4.4.

5.4 Briefly describe the zoning and planning process of wind energy projects. What are the roles of the landowner, the developers, third parties, government agencies or municipalities? Please provide information on the timing and cost of gathering and maintaining the necessary zoning and planning permits.

- Areas of districts and regions are 'zoned' and then particular controls apply to activities in each zone. Wind energy projects do not have specific zoning in New Zealand but rural zones are generally considered to be the most appropriate area for large-scale wind farms. We expect resource consent will be required throughout New Zealand's districts and regions for wind energy projects.

The RMA and EEZ Act provide statutory timeframes for assessing and issuing resource consents / marine consents. At a high level this includes the following:

Step	Details	Timing
Prepare application	The Applicant (ie developer) is responsible for preparing the application for consent. The Applicant should engage experienced consultants to assist with the design and preparation of the application documents. It will also be important that the Applicant consult early with potentially affected parties / stakeholders about the application to assess the potential appetite for such a project. Please see paragraph 4.1.	In our experience, the preparation of an application for a complex project such as a wind energy project would likely take **6-12 months**.
Lodge application with consent authority	Once the consent authority (ie council) or EPA has received an application for consent, it must determine whether the application is appropriately completed. If an application is determined to be incomplete, the consent authoriy can either return the application to the applicant or request further information.	The timeframe for the consent authority to determine whether an application is complete can take up to **1 month**. Obtaining consent for a complex project such as a wind energy project would likely take in the order of **9 - 12 months** from lodgement (although there is a risk of subsequent appeals – see below).
Notification	Given the nature and profile of the activities in the present case, we would expect the activities to be publicly notifiable. The consent authority will notify the application and any person may make a submission either for or against the proposal. Given the nature and profile of the activities	
	in the present case, we would expect the activities to be publicly notifiable**.**	
Hearing	Following the close of submissions, a hearing takes place. At this hearing, submitters have an opportunity to speak to their submissions.	
Decision on application	Following the hearing, consent authority will consider whether to grant, grant with conditions, or decline the application for consent.	

Appeal	After a decision is issued, there is the subsequent risk that the decision is appealed by a submitter. Under the EEZ Act, this would firstly be to the High Court and then could continue to the Court of Appeal and / or Supreme Court. Under the RMA, it would firstly be to the Environment Court as a de novo hearing and then follow the same process as for the EEZ Act.	Statutory timeframes to lodge an appeal vary at each level, but range between **10 – 20 working** days. If a decision is appealed, there is no set timeframe for the hearing of such appeal. The timing is largely dependent on the court's availability to hear the matter. If an appeal proceeds to a hearing, a decision on the appeal would likely take in the order of **12 to 18 months** from lodgement of the appeal (per court / appeal).

5.5 What rules apply to the use of wind energy for electricity production in territorial waters and the exclusive economic zone of your jurisdiction? Has your government made a statement or issued a policy regarding the harnessing of wind energy in territorial waters or the exclusive economic zone?

- The EEZ Act applies to New Zealand's territorial waters and the exclusive economic zone and in respect of a government statement/policy. Please see paragraph 2.6.

5.6 Are there any other aspects of your local legislation connected with the use of land or other property related matters you would like to add.

- All foreign investment into New Zealand is required to comply with the Overseas Investment Act 2005 ("**OIA**"). The Overseas Investment Office ("**OIO**") oversees the regime and assesses applications made under the OIA. Overseas persons must obtain consent from the relevant Government ministers prior to giving effect to an investment where those overseas persons acquire ownership or control (either directly or indirectly) of an interest in "sensitive land" or "significant business assets".

- An investment in "sensitive land" occurs where an overseas person acquires a:

  - freehold interest, or a leasehold interest of ten years or more (including any rights of renewal), in "sensitive land" or;
  - freehold interest, or a leasehold interest of three years or more (including any rights of renewal), in "residential land" or;

- acquires 25% or more of the shares in a company where that company owns or controls (directly or indirectly) such an interest in "sensitive land".

- A number of categories of land are classified as "sensitive land" under the OIA. These include parcels of land over a certain size that include or adjoin land of particular significance (being reserves, public parks, foreshore, seabed, lakebed, Māori land, islands, land of historical significance and land held for conservation purposes), any nonurban land of more than 5 hectares, or residential land of any size.

- An investment is significant business assets occurs where the consideration paid or the value of the applicable New Zealand assets exceeds NZ$100 million (or such higher threshold as may apply).

- Even in cases where OIO consent is not required under the usual significant business assets or sensitive land pathways, investors will still need to consider whether the transaction involves New Zealand land or assets that are used in a "strategically important business". If so, the transaction will be subject to a "national security and public order call-in power", which allows the Minister of Finance to call in the transaction for review and to block, impose conditions on, or unwind the transaction if the Minister considers it poses a significant risk to New Zealand's national security or public order.

- New Zealand's overseas investment regime is notorious for being one of the most complex in the world, however, well advised investors can expect to navigate it successfully in the vast majority of cases. The regime seeks to find the appropriate balance between encouraging beneficial overseas investment in New Zealand and protecting New Zealand's interests.

6 GRID CONNECTION

6.1 Briefly describe how wind energy farms are connected to the grid. Is there a requirement to connect wind farms to the grid and who is responsible for the connection and the cost of connecting the project to the grid?

There is no requirement for wind farms to be connected to the national grid, however Transpower notes that large assets (>50MW) will usually need to connect direct to Transpower's assets.

- Although the Code governs technical standards for connection to ensure common quality (Part 8), the process to obtain connection is contractual.

- Parties that intend to connect to the national grid can commission Transpower (as Grid Owner and System Operator) to complete a connection investigation to refine the scope, cost range, risks and timeframe for the connection. The connection process varies based on the needs of an individual connection. A small discrete and simple connection may take less than 18 months, while a large connection can take up to three years from initial engagement with Transpower to operation.

- In terms of costs, it is a lower cost option to connect to an existing Transpower substation. However, the ability to do so may be hindered if no substations are located near the wind farm, or if substation capacity is limited. In these situations, existing substations may require enhancements or replacements, or a new generation connection may be necessary. This will often involve a significant investment (e.g. $20 million to $40 million for an entirely new connection).

- The framework for funding new or enhanced Grid Injection Points ("**GIP**") will differ based on the context. In circumstances where existing connections are due for replacement, or additional capacity is requested, Transpower may fund this, or offer split funding with the party seeking connection. Alternatively, where a party seeks a new connection or enhancements to existing connections not due for replacement, it may be required to fund the full cost of this itself, including foundation works, assets and the build. Under regulation, other generators can subsequently connect to the same GIP in the future, despite not having incurred any of the initial costs involved in establishing it.

- As mentioned above, generators can also connect to local distribution networks if technically feasible. Part 6 of the Code provides a process to facilitate connection applications, and also provides default terms to be used in the event that the generator and distributor do not enter a connection agreement within specified timeframes.

6.2 Briefly describe grid connection and electricity transfer for offshore wind energy projects.

- There are no offshore wind farms operating in New Zealand, however, the development of New Zealand's first offshore wind farm is currently being explored. Our understanding of how electricity will be transferred to the national grid is therefore informed by overseas case studies. Electricity from offshore windfarms is typically transmitted back to shore via undersea power cables. Most offshore wind farms operating internationally are within 40 km of the coast, minimising transmission losses from the high voltage alternating current cables normally used. Wind farms located further offshore may require a high voltage direct current cable (like New Zealand's inter-island link) which is more efficient over longer distances. These cables are then gathered at an offshore substation before power is exported via a subsea transmission line to the onshore transmission grid. Once onshore, electricity is typically connected to the grid in the same way as onshore electricity generation. It is also possible for the electricity generated to be supplied directly to a specific end-user, such as a large-scale industrial plant, bypassing a grid connection. Transpower sees nothing particularly unusual about offshore wind that would amount to a substantial diversion from "business as usual".

7 REVENUES FOR THE STATE AND INCENTIVES

7.1 Please provide information on the fees payable during the application and permission process of wind energy projects, including application fees, other fees payable as a part of the application process and fees necessary to maintain a license or operations.

- Consent authorities and the EPA operate a user-pays policy for receiving and processing consent applications. All actual and reasonable costs associated with processing the resource consent or marine consent, plus any disbursements, will be on-charged to the applicant. Once a consent is issued monitoring fees will be payable in accordance with conditions of consent to the consent authority or EPA.

7.2 How does taxation in the sector work and what taxes are payable by the owner or operator of a wind farm? Please describe and provide information on the applicable tax rate and resource tax.

- There is no specific taxation regime applicable to this sector under the Income Tax Act 2007 ("**Tax Act**"). New Zealand does not impose any special resource taxes.

- Companies resident in New Zealand generally pay tax on their worldwide income. Nonresident companies are subject to tax on any income derived from New Zealand. The income tax rate for companies (resident and non-resident) is currently 28%. Income tax is levied on annual gross income less annual total deductions and any losses brought forward from prior years or offset from companies in the same group. The resulting net amount is the taxable income.

- New Zealand imposes a broad-based value added tax referred to as goods and services tax ("GST") at the rate of 15% on the supply of all goods and services in New Zealand (subject to rules applying a zero-rate for certain transactions (including exported goods and services and sales of land between GST registered persons), exemptions for financial services and the supply of residential accommodation, and certain other limited exceptions).

7.3 What other revenue (including resource fees, if applicable) is payable to the state or the municipality in terms of the operation of wind turbines? Who benefits from the payment of property fees or other similar fees?

- There is no specific revenue payable to the state for the operation of wind turbines.

  Rates will be payable to the consent authority (municipality) in accordance with the relevant authority's property rates. The payment of rates will benefit the local ratepayers and will be put toward matters that the relevant authority has identified but may include the construction, operation and maintenance of local assets (eg libraries, improving water quality).

- Monitoring fees are payable to consent authorities. Please see paragraph 7.1.

7.4 Does the government receive lease payments, or other similar payments, for wind turbines build on state owned land?

- New Zealand currently has 17 wind farms operating. To the extent that there are turbines situated on Crown owned land our expectation is that the Government would lease or licence the land to the wind project developer on usual arm's length commercial terms including market rental payments and/or royalties.

7.5 Does the government or municipalities offer any kind of support mechanism for wind energy projects? This could include tax deduction or deduction of other payable fees or discount on import duties for wind turbines.

- The New Zealand government does not offer any tax-specific support to entities that undertake wind energy projects.

- New Zealand has a 15% tax credit that is available, in respect of eligible research and development ("R&D") expenditure, to businesses undertaking eligible R&D activities in New Zealand (which may include expenditure in relation to wind energy farms). The R&D tax credit can be applied against tax on the person's taxable income.

7.6 Other information on state or municipality revenue you would like to add.

- New Zealand has no wealth tax, gift tax, stamp duty or payroll tax. New Zealand has no general capital gains tax, although the definition of income includes profits and gains from certain transactions (notably involving personal property, land and financial arrangements) that would otherwise be capital in nature.

8 TYPE OF LITIGATION RELATED TO WIND POWER PROJECTS

8.1 Please describe the process of disputes related to the development of wind energy projects. What are the local or administrative appeal routes available for those who disapprove of a prospected project and at what time shall they raise their concerns? Does the legislative framework encourage third parties or the general population to participate in disputes?

- Please see paragraph 5.4.

- The Environment Court is the main judicial decision-making body under the RMA. It hears appeals from people who disagree with decisions made by consent authorities under the RMA. The Environment Court will expect all parties to try to resolve the matter

  first through mediation, or at least narrow down the matters in dispute through this process. Decisions of the Environment Court can be appealed to the High Court on points of law only.

- Under the EEZ Act there are appeal rights on points of law to the High Court against the decision to grant or decline a consent, the conditions placed on a consent, and any decision to review or cancel a consent.

- A person who is impacted by a decision can also seek judicial review of that decision under the Judicial Review Procedure Act 2016 or can seek to judicially review the exercise of a "public power" under the common law. In considering the judicial review, the court will consider if the decision was properly made. If a court finds a decision was improperly made, it has discretion to grant or withhold relief. If it grants relief, it can quash the original decision and refer it back to the decision-maker.

8.2 Are there special litigation proceedings available in your jurisdiction in relation to wind power projects?

- There are no special litigation proceedings available in New Zealand in relation to wind power projects.

8.3 Is the development or operation of wind power projects often disputed, by either the public or other entities?

- Yes, in the past wind energy projects have been disputed by the public / other entities. Opposition usually arises by concerned local communities or mana whenua. Local communities are typically concerned with the amenity effects of wind turbines (particularly visual effects) and iwi are often concerned with the impact of wind energy projects on their cultural, spiritual, historical and traditional association with the relevant area. Please see paragraph 2.4.

- A dispute may also arise where the applicant considers the consent conditions are unworkable or onerous.

8.4 Do the same courts have jurisdiction in litigation relating to onshore and offshore projects?

- Yes. Please see paragraph 8.1.

9 DIFFICULTIES ENCOUNTERED IN THE DEVELOPMENT OF WIND POWER PROJECTS (LACK OF SOCIAL ACCEPTANCE, ACCIDENTS, INEFFICIENT SUPPORT MECHANISM, STATE AID ISSUES ETC).

9.1 Briefly describe historical difficulties encountered in the development of wind projects in your jurisdiction and the current standing of future development of wind energy project.

[*This could include, for example, lack of social acceptance or governmental support. Please describe briefly current public opinion on further development of wind farms. Is there a public acceptance and does in vary between onshore and offshore wind farming?]*

A large difficulty encountered in the development of wind projects is third party opposition, which is primarily driven by local residents or mana whenua. Arguably, in terms of future development the greatest difficulty is the "lack" of onshore space where visual effects may limit the potential to be granted consent for a wind farm.

- Another key difficulty has been the previous lack of government policy and support around increasing renewable energy development. A number of wind farms have been consented in New Zealand but have not been constructed due to market forces.

- Currently, there is interest from entities in developing offshore wind farms in New Zealand. The Government has stated that it will investigate developing a regulatory framework for offshore wind. It is expected that offshore wind will have fewer visual effects and reduce local resident concerns, however mana whenua concerns are expected to remain relevant.

9.2 Are current support mechanisms sufficiently supportive of the development of wind energy in your jurisdiction, as of today? Has there been a call for changes or updates to the support mechanisms framework to better support developers or electricity producers?

[A brief description of the support mechanism would be helpful, where applicable, to understand the support mechanism structure.]

- There are no current support mechanisms providing specifically for the development of wind energy. While the RMA is generally supportive of wind energy in New Zealand it remains a general environmental and planning statute. Notably, the Government will begin work on exploring a new regulatory regime for offshore renewable energy in 2022. With increased appetite for climate change resilience there is the potential for greater recognition of, and calls for legislative support for, New Zealand's untapped potential for wind energy.

9.3 Have there been any state aid related issues in your jurisdiction in respect of wind energy projects?

- There have been no state aid related issues in New Zealand in respect of wind energy projects.

9.4 Are any litigation cases or proceedings currently taking place that could affect the future of wind energy in your jurisdiction?

- There are no current litigation cases or proceedings that may affect the future of wind energy in New Zealand.

9.5 Any other information or clarification you would like to make in relation to the harnessing of wind energy in your jurisdiction?

- N/A

VIÐAUKI 6. FRAKKLAND, HOLLAND OG SVÍÞJÓÐ

Issues/Information	The Netherlands	France	Sweden
Statistical information			
Total installed capacity of electricity production	35 GW (2019)	130 GW (2017)	43,7 GW (2020)
Proportion of electricity produced from renewable energy resources	33% (2021)	19,3% (2020)	54% (2020)
Installed capacity of electricity produced from wind energy	Onshore: 3GW (2015) Offshore: 2,5 GW	Onshore: 18,7 GW (2021) Offshore: 3,9 GW (in development and to be commissioned between 2022 and 2027)	27,5 GW (2020), combined for onshore and offshore.
First year of wind energy production	2006	1991	1983
Number of wind turbines	2,294 (2017)	6,500 (2018)	4,754 (2021)
Institutional, regulation and administrative matters			
Institutional framework	The Netherlands Enterprise Agency Ministry of Economic Affairs and Climate Energy	French General Directorate for Energy and Climate Change	The Swedish Energy Agency Swedish Environmental Protection Agency Local municipalities, who need to approve

Issues/Information	The Netherlands	France	Sweden
	Regulator: The Netherlands Authority for Consumers and Markets (ACM) The Ministry of Infrastructure and the Environment Provinces Local Municipalities	French Ministry for the Ecological and Inclusive Transition The Energy Regulatory Commission (CRE) The French Competition Authority (FCA) Environment & Energy Management Agency (ADEME) Prefects Local Municipalities Maritime Prefects	permits for wind turbines; Municipal council who adopts regulations and distributes tasks between committees and boards; Municipal board prepares matters for the municipal council and can also be responsible for general planning; Municipality's environmental and health protection board; Municipality's building committee; County administrative boards; Land and environmental courts.
Main applicable legislation	The Netherland's Offshore Wind Energy Act of 24 June 2015[38] Implementation regulation for wind energy at sea of 30 June 2015	Urbanism Code Energy Code Environmental Code The United Nations Law of the Sea Convention of 10 December 1982	The Swedish Environmental Code The Planning and Building Act Swedish Economic Zone Act

[38] https://wetten.overheid.nl/BWBR0036752/2015-07-01

Issues/Information	The Netherlands	France	Sweden
	The Nature Conservation Act of 16 December 2016[39] The Water Decree of 30 November 2009[40] Dutch Civil Code Activities Decree[41] Electricity Act 1998[42] Energy Industry Act Grid Code[43] The Kingdom Act establishing an exclusive economic zone of 27 May 1999 The United Nations Law of the Sea Convention of 10 December 1982	General Code of Public Property Tax Code	
Main policies	The National Water Plan the Policy Rule for setting up a safety zone for wind farms at sea The Policy Document on the North Sea 2016-2021	EU policies Multiannual Energy Plan (PPE - Programmation pluriannuelle de l'énergie)	Sweden's Integrated National Energy and Climate Plan

[39] Code of Conduct Nature Conservancy | https://www.noordzeeloket.nl/en/policy/noordzee-natura-2000/beleid/artikel-baseline/

[40] https://zoek.officielebekendmakingen.nl/stb-2009-548.html

[41] https://rwsenvironment.eu/subjects/environmental-0/activities-decree/

[42]https://climate-laws.org/geographies/netherlands/laws/electricity-act-dde0dfd7-d8b9-49bb-9369-29bc5c05c624#:~:text=The%20Electricity%20Act%20%28E-Act%29%201998%20is%20an%20important,amend%20the%201998%20document%20and%20the%20Gas%20Act.

Issues/Information	The Netherlands	France	Sweden
	Offshore wind energy roadmap 2023 Offshore wind energy roadmap 2030	Regional plans: • Strategic, Prescriptive and Integrating Scheme for the Regions (SRADDET) • Regional Climate, Air and Energy Plan (SRCAE), which includes a Regional Wind Power Scheme • Regional Environmental Health Plans (PRSE) Local plans : • Territorial Climate and Energy Plan (PCAET) • Atmosphere Protection Plan (PPA)	
Definition of area for the harnessing of wind energy on land or at sea	Offshore wind farms are only allowed in designated zones according to the Water Plan	<u>Onshore</u> The Regional Wind Power Scheme aims to define zones	About 2% of the Swedish land is designated as being of interest for wind

Issues/Information	The Netherlands	France	Sweden
		favourable to the development of wind power, i.e., which reconcile energy objectives with environmental issues. In May 2021, the Government asked the regional prefects to map out areas favourable to the development of wind power in order to ensure that the objectives of the Multiannual Energy Plan and the generalisation of wind farms are met.	power due to favourable conditions. The Swedish government has launched a search for new sea areas suitable for the development of offshore wind farms to support the country's newly established plan of generating up to 120 terawatt-hours of electricity annually. The government has now decided on Sweden's first marine plans and has given the task of designating new areas to the Swedish Energy Agency, in cooperation with other agencies.
Permits and application			
Permits	Installation of 1 or 2 turbines: submission of an environmental management notification to the municipalities. This permit is used mainly for private wind installations. 3 or more turbines: All in one permit for Physical Aspects with limited environmental assessment	<u>Onshore</u> • Operation permit needed for utility-scale facilities above 50MW. Facilities with a rated capacity of up to 50 MW are deemed authorised to operate.	Permits for wind turbines are subject to the approval of municipalities. The government may, despite the municipality not approving a facility, allow the activity if it considered extremely

Issues/Information	The Netherlands	France	Sweden
	or an All-in-one permit for environmental regulations for businesses. The permits are delivered by the Central Government. If a wind farm has a capacity from 5 to 100 MW a province can authorise. Authorisations required linked to environmental issues: Environmental Permitting (General Provisions) Act (Wabo) Water permit Public Works and Water Management Act (Wbr) Nature Conservation Act permit Offshore: Central government sets conditions for necessary permits. Permit issued under the Environmental Permitting (General Provisions) Act Permit issued under the Public Works (Management) Act	• Authorisation to connect to the transmission or distribution system. • Single Environmental Authorisation delivered by Prefect: Merges several permits and authorisations needed under the Environmental Code, the Energy Code and the Forestry Code. • No additional construction permit if the facility is eligible for the Single Environmental Authorisation. • Construction permit delivered by Local Municipalities for any wind turbine between 12m and 50m • Below 12m: simple notification	important from a national point of view. Depending on the size of the farm, two different permit procedures may be relevant. Wind farms are either considered to be mid-size wind farms or large wind farms. Large wind farms are defined as either (i) having two or more turbines standing together with at least one of the turbines being higher than 150 meters or (ii) seven or more turbines standing together and at least one of the turbines being higher than 120 meters. If a wind farm is mid-sized, or if a single wind turbine is higher than 50 meters, (i) the local municipality must be notified of the establishment and (ii) the operator must apply for a construction permit. A written notification to the local municipality shall be in accordance with the Environmental Code

Issues/Information	The Netherlands	France	Sweden
	Permit issued under the Water Act License period for offshore wind farms has been adjusted from 30 to a maximum of 40 years in 2017 with an amendment to the Dutch Offshore Wind Energy Act.	<u>Offshore</u> • authorisation to be connected to the public network and to occupy the maritime public domain and EEZ • authorisation concerning the protection of the safety of waters, aquatic environments, and marine environments (subject to EIA and public consultation).	and give the municipality an opportunity to assess the activities and give prior notice of any concerns. The application does not need to include an EIA, just a map showing the location of the farm, technical descriptions of the wind turbines, and information on how the wind farm might affect the environment, are among the requirements prior to submission. In most cases, a construction permit from the municipality's Planning Committee (*Byggnadsnämnden*) is required regarding the location, the external design and the use of the wind farm. For large wind farms, the permitting process can be divided into three stages: 1. Consultation process; 2. Preparation of the EIA; and

Issues/Information	The Netherlands	France	Sweden
			3. Application process.
Applications	See permitting above Competitive tendering <u>Tender with subsidy</u> SDE+ and SDE++ Subsidy tender process The Netherlands Enterprise Agency is executing the offshore wind energy subsidy and permit tenders on behalf of the Ministry of Economic Affairs and Climate Policy. Subsidies and permits for the development of the wind farms are awarded to the bid that meets all criteria. <u>Subsidy-free tender</u> Applications must satisfy the same application criteria that apply in case of a tender with subsidy	Competitive tendering for offshore wind energy Tendering process for projects that do not meet the direct contracting conditions, i.e., farms with 7 wind turbines and more, at least one turbine with a rated capacity of more than 3MW, any windfarm that doesn't meet the distance rule.	An operator must apply for a permit, which must include an environmental impact assessment, at the County Administrative Board of if the wind farm meets the criteria to be considered a large wind farm under the Environmental Code. Currently under review to simply the application process, making municipalities responsible for issuing approvals for wind turbines within their areas but also limit their ability to object to individual plans. The proposal is part a larger government initiative to simplify the wind turbine approval process.
Environmental issues			
EIA requirements **Public consultation**	Environmental impact assessment needed in case of application for an environmental permit or for a permit regarding dispensation from or	Rules on installations classified for the protection of the environment (ICPE) are applicable to onshore wind	The consultation process must be initiated before the preparation of an EIA and information on the planning activities

Issues/Information	The Netherlands	France	Sweden
	amendments to a zoning plan, that are part of the All-in-one permit for physical aspects. Environmental impact assessments are mandatory in some cases, at the request of municipalities or provinces. Public consultations are possible, and communities can participate in the various stages of the decision-making process concerning onshore and offshore wind energy installations.	facilities with a height above 50m or, in certain circumstances, comprised between 12m and 50m. Wildlife protection: environmental monitoring protocol for onshore wind farms is in force. Rules relating to maximum noise level, sound emergence and high tone. Environmental Impact Assessment to be provided with the application for an environmental authorisation. Assessment of impact on *inter alia*: • landscapes • biodiversity • noise. Hazard assessment necessary as part of the ICPE authorisation process. Public consultation for both onshore and offshore permits.	must be sent to the County Administrative Board and the responsible municipal committee. Together with the County Administrative Board, the applicant determines which authorities or other parties will be included in the consultation process and the consultation process can vary between and is determined with the County Administrative Board. Onshore wind power with the tower's total height exceeding 120m requires a permit for "hazardous activities". Offshore wind power requires a permit for "water operations" and a permit for "hazardous activities". In addition, the applicant for the permit must have a right of disposition of the water. Research, construction and the lay out of cables on the continental shelf will also require a

Issues/Information	The Netherlands	France	Sweden
			separate permit which is granted, depending on the extent, by Geological Survey of Sweden or the government. [44]
Property issues			
Access to land and involvement of landowners	The zoning plan is aimed to decide if a location is suitable for the development of wind energy. If the wind farm is located on private property, the owner's permission must be obtained and attached to the permit and subsidy application.	The Regional Wind Power Scheme identifies the parts of the regional territory favourable to the development of wind energy, taking into account on the one hand the wind energy potential and on the other hand the easements, the rules of protection of natural spaces as well as the natural and cultural heritage, the landscape ensembles, the technical constraints and the regional orientations. It establishes the list of the communes in	About 2% of the Swedish land area is designated as being of national interest for wind power, due to, for example, favourable wind conditions. Wind farms can be built in other areas as well, but the applicant would have to explain why that location is preferred.

[44]http://www.res-legal.eu/en/search-by-country/denmark/tools-list/c/denmark/s/res-e/t/promotion/sum/95/lpid/96/

Issues/Information	The Netherlands	France	Sweden
		which these zones are located. If the wind farm is located on a private property, the owner's permission must be obtained, and an agreement must be reached on access to land and adequate compensation.	
Electricity production in territorial waters and exclusive economic zones	In territorial waters, as on onshore land, the Dutch Civil Code applies, which means that the offshore windfarms located in territorial sea are owned by the state. The state can grant entitlement to a third party according to property law. In the EEZ, the Dutch Civil Code does not apply, and the zone is ruled by UNCLOS (United Nations Convention on the Law of the Sea). The international convention does not rule who is the owner of a windfarm, but grants to the country sovereign rights for purpose of wind energy activities and the right to authorize installations.	The Multiannual Energy Plan sets out, among other things, the powers and locations of offshore wind projects to be developed. <u>Public maritime domain:</u> • Extends to the limit of territorial waters. • It is inalienable and imprescriptible. • Any project of construction or installation requires prior authorisation from the State, which gives rise to the payment of a fee. • Such authorisation does not confer any right of	

Issues/Information	The Netherlands	France	Sweden
		ownership to its holder. EEZ: • Does not belong to the French State. • the zone is ruled by UNCLOS (United Nations Convention on the Law of the Sea). The international convention does not rule who is the owner of a windfarm, but grants to the country sovereign rights for purpose of wind energy activities and the right to authorize installations.	
Grid connection			
Grid Connection	Transmission System Operator: TenneT. TenneT is also the system operator for the offshore transmission system. Energy Industry act: obligation to define the minimum technical requirements for connections to the grids	Transmission System Operator: RTE RTE is also the system operator for the offshore transmission system.	Sweden has implemented a system of guaranteed access to the grid. On request and against reasonable compensation, the grid operator must connect power-generating installations meeting the required technical

Issues/Information	The Netherlands	France	Sweden
	Grid Code: defines the minimum requirements for the TenneT Grid on Land		specifications to the grid Sweden is working on a proposal that would reduce grid interconnection costs for offshore wind developers. The government's plan centers around extending Sweden's national electricity grid to maritime areas where several facilities, including offshore wind, can be connected.
Revenues for the state and incentives			
Revenues	Energy Tax: applies to each electricity connection. License for the supply of energy to small-scale users costs a one-time fee of 1,199 euros per license.	Public service charge for electricity (CSPE) Offshore • Wind farms in the public maritime domain (up to 12 miles from the coast): ○ fee paid to the general State budget: amount defined in the agreement on use of the public maritime	

Issues/Information	The Netherlands	France	Sweden
		domain (partial exemption is possible) ○ RTE pays a flat fee for the transmission infrastructure ○ Offshore wind farm tax (18,605€/MW in 2022) Beneficiaries: (i) coastal municipalities from which the installations are visible; (ii) maritime fisheries and marine breeding committees; (iii) French Office for Biodiversity; (iv) sea rescue organisations. • Wind farms in the EEZ: ○ Annual fee paid to the French Biodiversity Agency (Partial	

Issues/Information	The Netherlands	France	Sweden
		exemption is possible) ○ Fee paid by RTE (10,000€ per platform) ○ Offshore wind farm tax (18,605€/MW in 2022). <u>Onshore</u> Flat tax on network companies (IFER) • Due on an annual basis • Applicable to all facilities of a rated capacity of 100kW or more • Tax rate: 7.70€/kW/year (2021).	
Incentives	<u>SDE+ and SDE++ support scheme</u> • Available for onshore wind, onshore wind with a height restriction, wind on primary flood defences and wind on lakes • Support scheme also available for offshore wind but separate tender procedures usually apply	Mainly public support mechanisms: <u>Feed-in premium (*complément de rémunération*)</u>: Finances the difference between the remuneration of their production on the wholesale market and the purchase price guaranteed by	Quota system. The main incentive for the use of renewable energy sources is a quota system in terms of quota obligations and a certificate trading system. The Electricity Certificates Act obliges energy suppliers to prove that a certain quota of the electricity supplied by

Issues/Information	The Netherlands	France	Sweden
	• Feed-in premium Offshore wind permits may also be awarded without subsidy Green certificates Exemption or refund of the energy tax available for self-producers.	the State to the renewable producer. Available via direct contracting (*guichet ouvert*) to farms with no more than 6 wind turbines, each turbine having a rated capacity of 3MW or less, and a distance rule between turbines must be complied with. Competitive tender for larger wind farms. New regulation entering into force 1 July 2022 narrows down the scope of the mechanism. The scheme will only be available to certain producers (including municipalities, renewable energy communities and cooperative companies). Only turbines of 137 m or less will benefit from the scheme.	them was generated from renewable energy sources. Tax regulation mechanisms. Electricity generated from wind energy is eligible for tax privileges consisting in a reduction of the real estate tax as defined in the Act on the Federal Real Estate Tax. Electricity produced in electricity generators with a capacity lower than 50 kW is not taxable. In case of electricity generated from wind, wave and solar this capacity margin is higher as authorised by the Energy Tax Act. Since 2015, a tax reduction for the micro production of renewable electricity is in place.

Issues/Information	The Netherlands	France	Sweden
Litigation related to wind power projects			
Type of legal issues	Environment protection, compliance of national legislation with EU law	Environment protection, validity of permits, compliance of national legislation with EU law	Environmental protection Noise and visual impacts
Jurisdiction	Administrative Courts (Afdelingbestuursrechtspraak van de Raad van State – *Supreme Administrative Court*)	Administrative Courts For offshore wind projects, the State Council (Administrative Supreme Court) has exclusive jurisdiction	
Historical difficulties encountered in the development of wind power projects			
Historical difficulties encountered in the development of wind power projects	Social acceptance	Social acceptance Alteration of the landscapes Noise Opposition to wind farm quite present in rural areas Conflict with the military activities	The legal preconditions for the establishment of wind power have often constituted major hurdles for investors. These obstacles for implementation can be found in: (i) the permitting procedure for environmental concession and (ii) the territorial planning system.[45] Foreign ownership of windfarms.

[45] https://www.mresearch.com/pdfs/docket4185/NG11/doc104.pdf

VIÐAUKI 7. ÚTDRÁTTUR Á GILDANDI LÖGUM OG REGLUGERÐUM

	Frekari upplýsingar um gildandi löggjöf:
Danmörk	Raforkulög ("Elforsyningsloven"). Reglugerð um raforkuframleiðslu ("Elproduktionsbekendtgørelsen"). Lög um endurnýjanlega orku ("Lov om fremme af vedvarende energi ") Skipulagslög sem gilda um siglingar ("Bekendtgørelse af lov om maritim fysisk planlægning"): Siglingaskipulag ("Havplanen“) Reglugerð um mat á áhrifum raforkuvera á sjó ("Bekendtgørelse om konsekvensvurdering af elproduktionsanlæg på havet"). Skipulagslög ("Planloven"). Reglugerð um skipulagningu vindmylla ("Bekendtgørelse om planlægning af vindmøller"). Byggingarreglugerð ("BR 18"). Byggingarlög ("Byggeloven"). Reglugerð um vindmyllur ("Vindmøllebekendtgørelsen"). Lög um mat á umhverfisáhrifum ("Miljøvurderingsloven"). Reglugerð um umhverfismat ("Miljøvurderingsbekendtgørelsen"). Náttúruverndarlög ("Naturbeskyttelsesloven"). Reglugerð um búsvæði ("Planhabitatbekendtgørelsen Reglugerð um tæknilegar vottanir fyrir vindmyllur ("Bekendtgørelse om certificering mv. af vindmøller"). Reglugerð um nettengingu vindmylla
Noregur	Raforkulög (The Energy Act of 1990) Lög um eignarnám (The Expropriation Act of 1959) Skipulags- og byggingarlög (The Planning and Building Act of 1985) The Energy Regulation of 1990 Regulations on Impact Assessment of 2017 The Cultural Heritage Act of 1978

	The Pollution Control Act of 1981 The Nature Diversity Act of 2009 The Offshore Energy act The Offshore Energy Regulations
Skotland	***General Note:*** *we have listed principal pieces of applicable legislation and all legislation listed is referred to "as amended".* *Electricity Act 1989 s4-10 licencing of activities relating to electricity including generation. Not specific to wind but includes wind generators. https://www.legislation.gov.uk/ukpga/1989/29/part/I/crossheading/licensing-of-supply-etc* *Electricity Act 1989 s36 – 36E consent (including deemed planning permission) for the construction and operation of electricity generating stations. Not specific to wind but includes wind generating stations (onshore, inshore, offshore). https://www.legislation.gov.uk/ukpga/1989/29/contents* *Electricity Act 1989 s37 consent for the construction and operation of overhead lines for transmission of electricity. Not specific to wind. https://www.legislation.gov.uk/ukpga/1989/29/section/37* *Electricity Act 1989 s32 – 32Z2 renewables obligation subsidy for the generation of electricity from renewable sources. No longer applicable to new projects. https://www.legislation.gov.uk/ukpga/1989/29/contents.* *Energy Act 2013 – Part 2 introduced electricity market reform and made provision for secondary legislation to introduce (i) contracts for difference (CfD), the main renewables support scheme in place in the UK at present and (ii) the capacity market, intended to support energy security in the UK. Not specific to wind. https://www.legislation.gov.uk/ukpga/2013/32/part/2* *Industry Codes the key ones being the following. Not specific to wind:* - *Connection and Use of System Code – governing the connection of users (generation and demand) to the national electricity transmission system including charging. https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc/code-documents* - *Grid Code – governing the technical requirements for connection to the national electricity transmission system.*

https://www.nationalgrideso.com/electricity-transmission/industry-information/codes/grid-code/code-documents

- *Balancing and Settlement Code – effectively regulates the trading of electricity on the GB electricity market to balance generation and demand as far as possible through trading and then recover the cost of balancing the system. It also regulates metering. https://www.elexon.co.uk/bsc-and-codes/balancing-settlement-code/*

Land:

Scottish Crown Estate Act 2019 - specific to offshore projects - sets out a framework for the long-term management of the Crown Estate in Scotland. See section 5.5 below.
https://www.legislation.gov.uk/asp/2019/1/contents

Land Registration etc. (Scotland) Act 2012. Not specific to wind but of general relevance in relation to the registration of land documents including for example windfarm leases.
https://www.legislation.gov.uk/asp/2012/5/contents

Consenting:

- *Town and Country Planning (Scotland) Act 1997 (as amended) (onshore development – 50MW and below). https://www.legislation.gov.uk/ukpga/1997/8/contents*
- *Town and Country Planning (Development Management Procedures) (Scotland) Regulations 2013 (application procedure - onshore development – 50MW and below). https://www.legislation.gov.uk/ssi/2013/155/contents*
- *Electricity (Applications for Consent) Regulations 1990 (onshore development >50MW; offshore). https://www.legislation.gov.uk/uksi/1990/455/contents/made*
- *The Electricity Generating Stations (Applications for Variation of Consent) (Scotland) Regulations 2013 (onshore development >50MW; offshore). https://www.legislation.gov.uk/ssi/2013/304/contents*

Licensing (inshore, offshore):

- *Marine (Scotland) Act 2010 (inshore) - https://www.legislation.gov.uk/asp/2010/5/contents*

- *Marine and Coastal Access Act 2009 (Part 4) (offshore) - https://www.legislation.gov.uk/ukpga/2009/23/part/4*
- *The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 (prospective applicants for a marine licence for an activity of a 'prescribed class' may notify the Scottish Ministers requiring a pre-application consultation statement) - https://www.legislation.gov.uk/ssi/2013/286/contents/made*
- *Energy Act 2004, s105 - requirement to prepare decommissioning programme (offshore) - https://www.legislation.gov.uk/ukpga/2004/20/section/105*

Environmental Impact Assessment:

- *The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (onshore, development under 50MW) - https://www.legislation.gov.uk/ssi/2017/102/contents*
- *The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (applications under sections 36 and 37 of the Electricity Act/ development over 50MW) - https://www.legislation.gov.uk/ssi/2017/101/contents*
- *The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (inshore waters) - https://www.legislation.gov.uk/ssi/2017/115/contents*
- *The Marine Works (Environmental Impact Assessment) Regulations 2007 (offshore waters) - https://www.legislation.gov.uk/uksi/2007/1518/contents*

Assessment of Impacts on European Sites:

- *The Conservation of Habitats and Species Regulations 2017 (s.36 consent applications) - https://www.legislation.gov.uk/uksi/2017/1012/contents*
- *The Conservation (Natural Habitats, &c.) Regulations 1994 (onshore and inshore) - https://www.legislation.gov.uk/uksi/1994/2716/contents*
- *The Conservation of Offshore Marine Habitats and Species Regulations 2017 (apply to marine licence and s.36 consent*

	applications within Scotland's offshore region) - https://www.legislation.gov.uk/uksi/2017/1013/contents – *The Conservation of Offshore Marine Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1013/contents) (implement species protection requirements of the Habitats and Birds Directives offshore (more than 12 nautical miles from the coast))* ***Other:*** – *Basking Shark Licences under the Wildlife and Countryside Act 1981 (as amended) and the Wildlife and Natural Environment (Scotland) Act 2011 - https://www.legislation.gov.uk/ukpga/1981/69/contents and https://www.legislation.gov.uk/asp/2011/6/contents.* ***Note:*** ***Onshore** means development on land* ***Inshore** or **Scottish Territorial Waters** means the area of sea within the seaward limits of the territorial sea adjacent to Scotland, broadly all waters within 12 nautical miles of the Scottish coast, and includes the waters of every estuary, river or channel, so far as the tide flows at mean high water spring tide)* ***Offshore** or **Scottish Offshore Waters** means broadly waters more than 12 nautical miles from baselines (i.e. the area stretching from 12 nautical miles out to limits of UK jurisdiction), broadly 12 to 200 nautical miles* *("offshore" in this paper generally means both inshore and offshore unless otherwise stated)*
Nýja Sjáland	The RMA establishes a regulatory framework that controls the use of land, air and water (within 12 nautical miles from the coast) in New Zealand. Regional and district plans promulgated under the RMA by district, regional and territorial authorities (ie councils) operate as "rulebooks" that specify objectives, policies and rules relating to matters such as land use, natural hazards, biodiversity, use of contaminated sites and the use of hazardous substances. Plans categorise activities as either permitted, controlled, restricted discretionary, discretionary, non-complying or prohibited. Permitted activities can be undertaken "as of right", whereas other activities require a

"resource consent" to be obtained from the relevant authority for the activity to be carried out lawfully (with the exception of a few activities classified as prohibited, for which resource consent cannot be applied for or obtained). Resource consents include "land use consents" (issued by district or regional councils, as relevant), "subdivision consents" (issued by district councils), "coastal permits" (issued by regional councils), "water permits" (issued by regional councils), "discharge permits" (issued by regional councils).

National Policy Statement for Renewable Electricity Generation 2011

The Electricity Industry Act 2010 provides a governing framework for the electricity sector industry participants, which includes retailers, generators, distributors, and line owners, among others. It does not contain specific provisions for wind generation.

The Electricity Industry Participation Code ("**Code**") sets out the responsibilities of all industry participants, and provides detailed rules that govern the physical interaction between transmission, distribution and generation, and operation of the wholesale electricity market.

The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 ("EEZ Act") manages the effects of activities in the exclusive economic zone ("EEZ") (12 to 200 nautical miles from the coast of New Zealand) and in / on the continental shelf.

The Crown Minerals Act 1991

The Marine and Coastal Area (Takutai Moana) Act 2011

The Marine Mammals Protection Act 1978

VIÐAUKI 8. GLÆRUKYNNING MEÐ HELSTU ATRIÐUM


BBA // FJELDCO

RAFORKUFRAMLEIÐSLA ÚR VINDORKU

Samantekt á gildandi laga- og reglugerðarumhverfi nokkurra ríkja

Ágúst 2022

BBA // FJELDCO

/ Um okkur

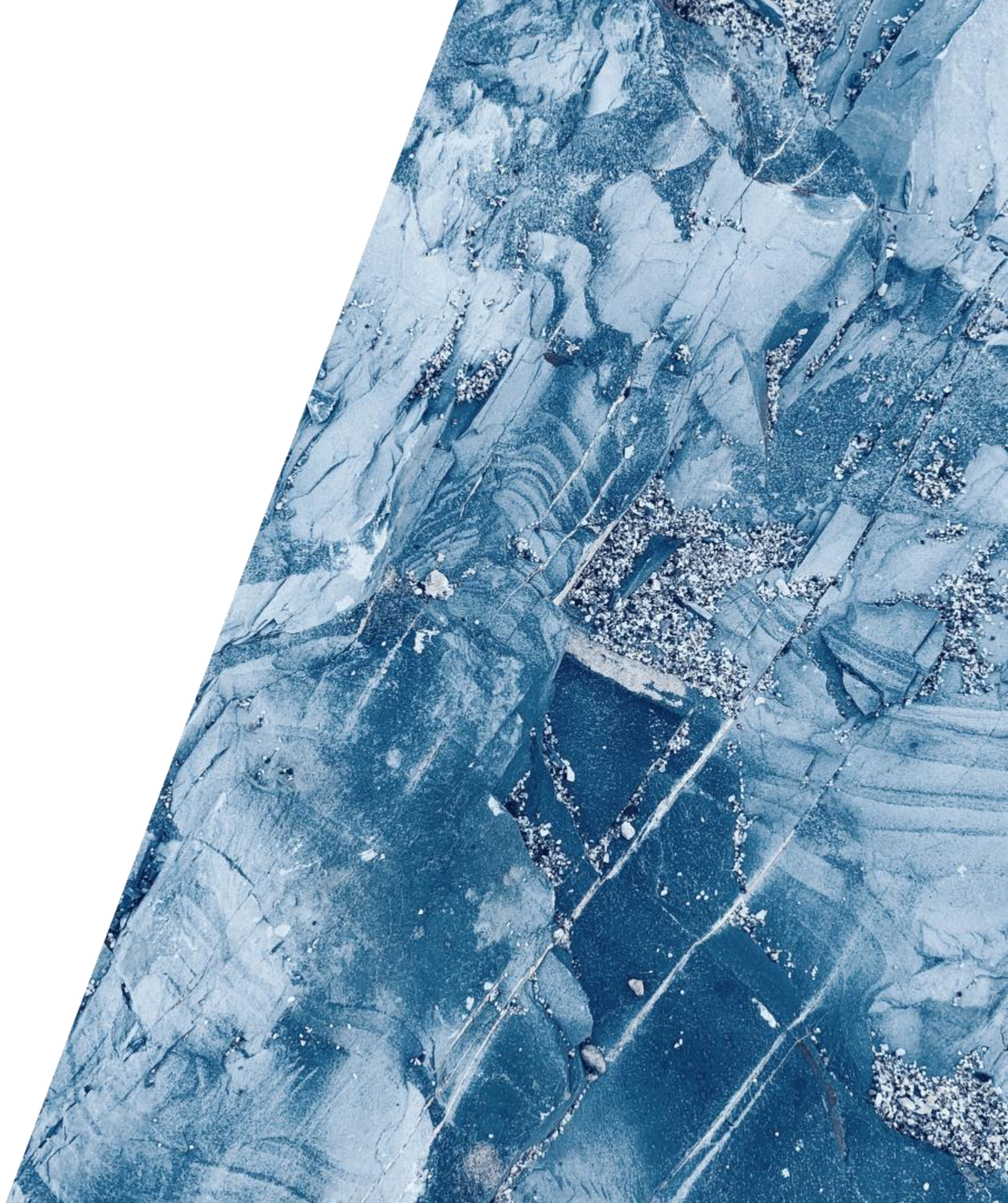
BBA//Fjeldco er útkoma sameiningar tveggja leiðandi lögmannsstofa á Íslandi sem sérhæfa sig í fyrirtækja- og fjármunarétti, BBA og Fjeldco. Með sameiningunni varð til fyrsta flokks þverfagleg stofa á sviði fyrirtækja- og fjármunaréttar.

Hinar sameinuðu stofur hafa allt frá árinu 1998 verið leiðandi á sínu sviði, það er á sviði fjármálamarkaðsréttar, verðbréfamarkaðsréttar, fjármögnunar fyrirtækja, samruna og yfirtaka sem og almenns fyrirtækja- og fjármunaréttar.

BBA//Fjeldco hefur á undanförnum árum lagt aukna áherslu á að byggja upp sérþekkingu á sviði orkumála. BBA//Fjeldco hefur aðstoðað íslensk orkufyrirtæki í samskiptum við stjórnvöld, veitt ráðgjöf varðandi umsóknir um leyfi og komið að gerð orkukaupasamninga og verkefnissamninga. BBA//Fjeldco hefur aðstoðað íslensk félög við endurnýjanleg orkuverkefni um allan heim, þar á meðal í Filippseyjum, Indónesíu, Kenía, Abu Dhabi, Nepal, Djibúti, Eþíópíu, Comoros, Frakklandi, Kasakstan, Tyrklandi ofl.

BBA//Fjeldco veitti íslenskum stjórnvöldum ráðgjöf við myndun laga og reglna um kolefnisrannsóknir og vinnslu á Drekasvæðinu.

Við búum yfir sterku liði lögmanna sem hafa viðtæka menntun og reynslu á sínu sviði og hafa málflutningsréttindi á Íslandi, Englandi, Frakklandi og New York. BBA//Fjeldco starfrækir skrifstofur í Reykjavík og London, auk þess að halda úti starfsemi í Frakklandi.



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TÖLFRÆÐILEGUR SAMANBURÐUR

	DANMÖRK	NOREGUR	SKOTLAND	NÝJA SJÁLAND
Uppsett rafafl	15,5 GW	38,7 GW	20,7GW	9,8 GW
Hlutfall raforkuframleiðslu úr endurnýjanlegri orku (%)	68%	95%	61.8%	82%
Uppsett rafafl úr vindorku. ***Skipting á milli framleiðslu á landi og á sjó.***	Á landi: 4,6 GW Á sjó: 1,7 GW	Á landi: 2,9 GW Á sjó: Á ekki við	Á landi: 8,3 GW Á sjó: 0,9 GW	Á landi: 0,689 GW Á sjó: Á ekki við
Hlutfall raforku sem framleidd er úr vindorku af heildar raforkuframleiðslu (%).	40.4%	7.5%	44.4%	7%
Hvaða ár hófst raforkuvinnsla úr vindorku.	1970	1992	1991	1993
Fjöldi vindmylla (e. wind turbines) í rekstri.	Samanlagður fjöldi á landi og á sjó: 6.271	Á landi: 1.298	Á landi: 4.496 Á sjó: 165	Á landi: 490

Samantekt helstu atriða

- Sterk pólitísk stefnumótun í samanburðarríkjum og sterkur laga- og reglugerðarrammi.
- Öll samanburðarríki gera ráð fyrir aukinni raforkuframleiðslu úr vindorku.
- Ákvarðanataka um leyfisveitingar annars vegar á sveitastjórnarstigi og hins vegar teknar af hinu opinbera, þ.e. annað hvort af ráðherrum eða undirstofnunum ráðuneyta.
- Vindorkuverkefni, sérstaklega á landi, sæta oft gagnrýni. Mikilvægt að hlutaðeigandi hagsmunaaðilar hafi leiðir til að koma skoðunum sínum á framfæri.
- Mikilvægt að skoða val og aðgengi að landsvæði undir vindorkuverkefni á landi og hvort rétt sé að gera kröfu um að landsvæði hafi verið fyrirfram skilgreind undir slík verkefni.
- Að sama skapi mikilvægt að skoða val á svæðum undir verkefni á sjó og hvort rétt sé að framkvæma opinbert mat á hafsvæðum undir vindorkuverkefni.
- Greiðslur til landeiganda að jafnaði gerðar á hefðbundnum kjörum vegna afnota af landi. Þegar samþykki skortir geta verið heimildir til eignarnáms.
- Fjölbreytt umhverfismál og mat á umhverfisáhrifum spila veigamikið hlutverk í þróun vindorkuverkefna. Eðli vindorkuverkefna að þau kunna að hafa áhrif á náttúru og dýralíf.
- Í samanburðarríkjum eru aðeins fyrir hendi takmarkaðar ívilnanir eða opinber stuðningur við vindorkuverkefni. Ríkari stuðningur var fyrir hendi á upphafsstigum þróunar verkefna. Þar sem þróun á sjó er stutt á veg komin er líklegt að ívilnanir verði í boði til að styðja við uppbyggingu.
- Leyfishafar greiða leyfisveitingagjöld. Aðrar beinar tekjur (utan skattgreiðslna) af vindorkuverkefnum eru takmarkaðar.
- Nauðsynlegt er að huga að tengingu við dreifi- og flutningskerfi raforku. Í samanburðarríkjum eru heimildir til að krefja framkvæmdaraðila um að greiða kostnað við nýtengingu, að heild eða hluta.

UPPSETNING SKÝRSLU

AÐKOMA STJÓRNVALDA OG GILDANDI LAGAUMHVERFI

//

LEYFI OG LEYFISVEITINGAFERLI

//

UMHVERFISMÁL

//

ÁLITMÁL TENGD EIGNARRÉTTI

//

FLUTNINGSKERFI RAFORKU

//

TEKJUR AF VINDORKUVERKEFNUM OG HVATAKERFI

//

FERLI DÓMSMÁLA

//

ANDSTAÐA VIÐ ÞRÓUN VINDORKUVERKEFNA OG VIÐHORF ALMENNINGS

//

Aðkoma stjórnvalda að vindorkuverkefnum

Stjórnvöld samanburðarríkjanna hafa öll markað skýra stefnu eða stefnuáætlanir um nýtingu vindorku og hafa nýlega útgefið orkustefnu eða uppfært gildandi orkustefnu, þar sem vindorku er ætlað að spila lykilhlutverk.

Danmörk

“Danmark kan mere II”. Stefna dönsku ríkisstjórnarinnar frá 2022 þar sem talið er að einn lykill í orkuskiptum sé að bjóða upp á viðbótar vindorkuverkefni á sjó.

Áætlað er að fjórfalda raforkuframleiðslu úr vindorku á landi og fimmfalda raforkuframleiðslu úr vindorku á sjó fram til 2030.

Þróun á orkueyjum (e. Energy Islands).

Ríki með landamæri að Norðursjó hafa samþykkt að auka þar framleiðslu verulega á næstu árum.

Noregur

Alhliða stefna stjórnvalda júní 2021 og viðbætur í apríl 2022.

Áhersla á græn orkuskipti og að greiða fyrir arðbærari framleiðslu á endurnýjanlegri orku.

Mikil tækifæri til vindorkuverkefna, sérstaklega á sjó.

Yfirlýsing í maí 2022 þar sem norska ríkið staðfesti vilja til mikillar uppbyggingu á sjó.

Fjölga á túrbínum í sjó úr 2 í 1500 á næstu 20 árum.

Skotland

Yfirlýsingar og stefna stjórnvalda frá 2017 og 2020 um nýtingu vindorku, bæði á sjó og landi.

Áherslur á aðgang að endurnýjanlegum orkugjöfum og lágkolefnalausnum.

Uppfærð vindorkustefna frá okóber 2021 leggur línurnar um hvernig nýta megi sem best þá vindorku sem Skotland býr yfir og styðja við og hraða uppbyggingu.

Nýja Sjáland

Metnaðarfull áform um 90% endurnýjanlegan raforkumarkað fyrir árið 2025 og 100% árið 2030.

Stefna ríkisins um frekari nýtingu á endurnýjanlegum orkuauðlindum og losun gróðurhúsalofttegunda.

Stjórnvöld telja að nýting vindorku geti spilað stórt hlutverk í orkuskiptum.

Lög og reglugerðir

Helstu laga- og reglugerðaflokkar tengdir vindorkuverkefnum

- Orku- og raforkulöggjöf
- Lög um flutningskerfi raforku
- Lög um umhverfismat og umhverfisáhrif
- Lög um mengun, friðlýsingu dýra og friðlýsingu plantna
- Lög um tæknilegar útfærslur og kröfur, t.d. til rafstöðva og vindmylla

Vindorkuverkefni á landi

- Land- og lóðaskráning
- Skipulagslög og lög um deiliskipulag
- Lög um menningarminjar

Vindorkuverkefni á sjó

- Siglingalög
- Hafréttur og sjávarlög
- Lög um strandaðgang

HLUTVERK STJÓRNVALDA

	Vindorkuverkefni á landi	Vindorkuverkefni á sjó
Danmörk	Sveitarfélög bera ábyrgð á skipulagi og umhverfismati vindorkuverkefna á landi. Ákveðnar ákvarðanir sveitarfélaga er hægt að kæra til kærunefndar. Danska umhverfisverndarstofnunin veitir undanþágur.	Danska Orkustofnunin hefur umsjón og eftirlit með vindorkuverkefnum á sjó. Ákvarðanir Orkustofnunarinnar eru kæranlegar til kærunefndar orkumála sem er undirnefnd Loftslags-, orku- og veituráðuneytisins.
Noregur	Aðkoma stjórnvalda að vindorkuverkefnum á landi er mikil. Norska auðlinda- og orkumálastofnunin, Olíu- og orkumálaráðuneytið og Lofslags- og umhverfisráðuneytið hafa öll aðkomu að vindorkuverkefnum á landi ásamt sveitarfélögum og stjórnsýslunefndum.	Á ekki við enda engin vindorkuverkefni á sjó í Noregi. Unnið er að heildstæðum breytingum um það regluverk sem gildir um vindorkuverkefni á sjó.
Skotland	Sveitarfélög fara yfir umsóknir um skipulagsleyfi vegna vindorkuverkefna á landi. Sveitarfélög setja staðbundnar skipulagsstefnur í tengslum við vindorkuverkefni á landi.	Skoska ríkisstjórnin hefur umsjón og eftirlit með umsóknum um leyfi fyrir vindorkuverkefnum á sjó.
Nýja Sjáland	Sveitastjórnir bera ábyrgð á ákvarðanatöku samkvæmt lögum um auðlindastjórnun. Umhverfisstofnun ber ábyrgð á eftirliti. Umhverfisráðuneytið fer með ráðgjafahlutverk til ríkisstjórnar um ýmis umhverfismál.	Á ekki við enda engin vindorkuverkefni á sjó á Nýja Sjálandi.

SKILGREIND LANDSVÆÐI

Fyrir framleiðslu rafmagns úr vindorku á landi og á sjó

Danmörk

Vindorkuverkefni á landi:
Sveitarfélög skulu tilnefna svæði undir vindorkuframleiðslu á landi. Njóta liðsinnis dönsku húsnæðis- og skipulagsstofnunarinnar.

Verkefni utan skilgreindra svæða möguleiki, með samþykki sveitarfélaga og breytingum á deiliskipulagi.

Vindorkuverkefni á sjó:
Danska Siglingastofnunin kortleggur heppileg svæði að höfðu samráði við opinbera aðila. Stofnunin hefur þegar skilgreint sérstök svæði undir vindorkuverkefni á sjó.

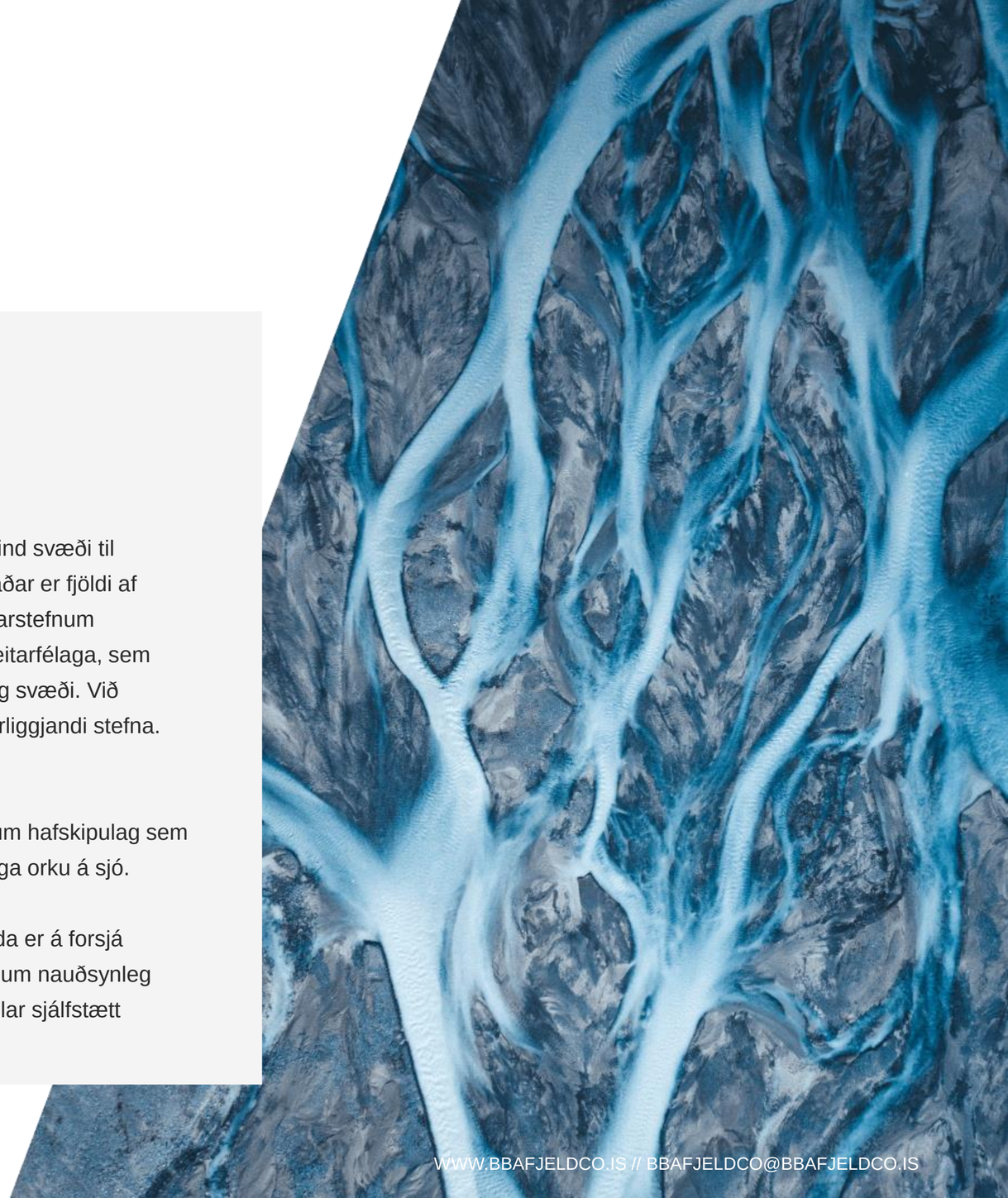
Framkvæmdaraðilar geta átt frumkvæði að tilnefningu svæða (e. *open door policy*).

Skotland

Vindorkuverkefni á landi:
Ekki eru til staðar fyrirfram skilgreind svæði til vindorkuframleiðslu á landi. Til staðar er fjöldi af staðbundnum orku- og vindþróunarstefnum stjórnvalda, auk deiliskipulaga sveitarfélaga, sem mynda ramma utan um ákjósanleg svæði. Við ákvarðanatöku ber að horfa til fyrirliggjandi stefna.

Vindorkuverkefni á sjó:
Bresk stjórnvöld hafa sett stefnu um hafskipulag sem og leiðbeiningar um endurnýjanlega orku á sjó.

Endanleg staðsetning framkvæmda er á forsjá framkvæmdaraðila, með fyrirvara um nauðsynleg samþykki, og framkvæma þeir aðilar sjálfstætt tæknimat á staðsetningum.



Umsóknir eða útboð?

Umsóknarferli

Í samanburðarríkjunum er að meginstefnu treyst á frumkvæði einkaaðila hvað varðar þróun vindorkuverkefna á landi.

Í Noregi, Skotlandi og Nýja Sjálandi er eingöngu treyst á frumkvæði framkvæmdaraðila en Danska orkustofnunin hefur haldið útboð fyrir vindorkuverkefni á landi, síðast í október 2021 en þá bárust engin tilboð.

Þróunar- og framkvæmdaraðilar velja heppilegt landsvæði undir fyrirhuguð verkefni, að teknu tilliti til fjölmargra ólíkra atriða.

Útboðsferli

Algengt í samanburðarríkjum að vindorkuverkefni á sjó séu boðin út.

Í Danmörku byggja flest vindorkuverkefni á sjó á útboðum þar sem danska Orkustofnunin auglýsir útboð af tiltekinni stærð og á tilteknu hafsvæði.

Ríkisstjórn Noregs tilkynnti í febrúar 2022 um áætlanir sínar um vindorkuframleiðslu í Sørlige Nordsjø II og verður fyrri hluti þess boðinn út 2022.

Skotland veitti nýlega leyfi yfir 17 ólíkum hafsvæðum eftir samkeppnisferli um úthlutun.

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Leyfisveitingar

Samantekt helstu leyfa í samanburðarríkjum

Danmörk

Verkefni á landi:

Dreifbýlisleyfi (ef verkefnið er fyrir utan deiliskipulag).

Mat á umhverfisáhrifum.

Leyfi til að byggja vindmyllu og leyfi til framleiðslu raforku.

Sérstakar leyfisveitingar geta komið upp á landsvæðum sem háð eru tilteknum verndarkröfum.

Verkefni á sjó:

Leyfi til að framkvæma frumrannsóknir.

Leyfi til að koma upp vindmyllum á hafi.

Leyfi til að nýta vindorku.

Noregur

Verkefni á landi:

Leyfi til að byggja, eiga eða reka búnað til raforkuframleiðslu.

Leyfi skv. lögum um eignarnám sem getur verið leyfi til eignarnáms eða leyfi til að taka landsvæði yfirráðum

Verkefni á sjó:

Leyfi til að byggja, eiga og reka búnað til raforkuframleiðslu skv. lögum um orkuframleiðslu á sjó

Leyfi til að byggja, eiga og reka dreifikerfi raforku.

Leyfi til vinnu og uppsetningar skv. hafnar- og vatnalögum.

Leyfi til að leggja samtengil (e. *interconnector*).

Skotland

Verkefni á landi:

Framleiðsluleyfi er sent til sveitarstjórnar eða til ráðuneytis, fer eftir stærð verkefnis.

Skipulagsheimildir.

„36. gr. samþykki“ samkvæmt 36. grein skosku raforkulaganna.

Leyfi til raforkuframleiðslu

Verkefni á sjó:
Skipulagsleyfi eða sjóleyfi

Leyfi til að framkvæma umhverfis- eða tæknimat

„36. gr. samþykki“ samkvæmt 36. grein skosku raforkulaganna

Sjávarleyfi

Leyfi til raforkuframleiðslu

Nýja Sjáland

Verkefni á landi:

Ekki er til staðar sérstakt leyfiskerfi í tengslum við stofnun og rekstur vindorkuverka.

Framkvæmdaraðilar þurfa að skrá sig sem atvinnuþátttakendur hjá Raforkustofnun Nýja Sjálands en slík skráning er ekki háð samþykki.

Vindorkuver á landi þurfa auðlindasamþykki samkvæmt lögum um auðlindastjórnun.

Verkefni á sjó:

Ekki er til staðar sérstakt leyfiskerfi fyrir vindorkuvinnslu á sjó.

Sjóleyfi samkvæmt lögum um landgrunn er nauðsynlegt.

Tímalengd leyfa

Danmörk

Leyfi fyrir vindorkuver á landi að jafnaði gefin út til 25 til 30 ára. Nákvæm tímalengd fer eftir heildstæðu mati.

Verkefni á sjó er úthlutað eftir útboði, að jafnaði til 25 ára.

Noregur

Leyfi fyrir vindorkuver á landi að hámarki veitt til 30 ára.

Nákvæmur árafjöldi ekki fyrir hendi hvað varðar vindorkuver á sjó. Samið um tímalengd hverju sinni.

Skotland

Leyfi fyrir vindorkuver á landi að jafnaði á milli 30 til 40 ára.

Nýlega voru vindorkuverkefni á sjó í Skotlandi boðin út til 50-60 ára, þ.e. í tvöfaldan líftíma (e. *two full operational life-cycles).*

Nýja Sjáland

Rekstur vindorkuvers á landi takmarkast við 35 ár.

Sjóleyfi, undanfari raforkuvinnslu á sjó, getur lengst gilt í 35 ár.

Noregur – Dæmi um leyfisferli vindorkuverkefnis á landi

Tilkynning framkvæmdaraðila um áform um byggingu

//

Rannsóknaráfangi þar sem framkvæmdaraðili framkvæmir matsáætlun

//

Umsóknaráfangi og mat á leyfisumsókn og áhrifum hennar

//

Nákvæmt skipulag, skilyrði og takmarkanir leyfis

//

Þróunarfasi verkefnis og frekari leyfisveitingar

//

Rekstraráfangi þar sem vindorkuver er rekið í samræmi við skilyrði leyfa

//

Niðurlagsáfangi og skilyrði um að snúa svæði aftur í fyrra horf

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/ REGLUR UM MAT Á UMHVERFISÁHRIFUM

Tilskipun Evrópuþingsins og ráðsins 2001/42/EB um mat á áhrifum tiltekins skipulags og áætlana á umhverfið hefur verið lögfest í Danmörku og Skotlandi. Tilskipunin hefur auk þess verið tekin upp í EES samninginn og hefur lagagildi í Noregi. Kröfur þessara ríkja eru að miklu leyti byggðar á sambærilegum grunni og þar sem umrædd tilskipun hefur verið tekin upp í EES samninginn hefur hún einnig lagagildi á Íslandi.

Danmörk

Framkvæmdaraðili þarf að leggja fram skriflega umsókn um skimun eða mat á umhverfisáhrifum. Slíkt mat er nauðsynlegt ef gert er ráð fyrir að framkvæmd hafi mikil umhverfisáhrif (e. *essential environmental impact*).

Hingað til hefur verið talið nauðsynlegt að framkvæma mat á umhverfisáhrifum fyrir öll vindorkuver á sjó. Hvað varðar verkefni á landi fara kröfur eftir eðli og umfangi verkefnisins.

Noregur

Framkvæmdaraðili þarf að framkvæma mat á umhverfisáhrifum vindorkuvera, bæði á sjó og landi, ef hann sækir um leyfi til uppsettrar vindorku umfram 10 MW.

Fyrir framkvæmdir undir 10 MW, hvort sem er á sjó eða landi, nægir lýsing á áhrifum framkvæmda á umhverfið.

Skotland

Mat á umhverfisáhrifum er háð eðli og umfangi framkvæmda. Varðandi verkefni á landi þarf sérstaklega að meta hvaða áhrif framkvæmdir muni hafa á dýrlíf og plöntulíf og öll starfsemi sem talin er líkleg til að valda röskun á tegund sem vernduð er samkvæmt Evrópureglum (e. European Protected Species) þarf sérstakt leyfi.

Varðandi verkefni á sjó ber yfirvöldum einnig að leggja mat á hvort framkvæmdir geti haft áhrif á tegundir sem njóta sérstakrar verndar samkvæmt skoskum náttúruverndarlögum.

Nýja Sjáland

Mat á umhverfisáhrifum er hluti af auðlindarstjórnunarlögunum (e. Resource Management Act) sem setur skilyrði fyrir nýtingu lands, lofts og vatns til orkuframleiðslu. Gerð er krafa um mat á raunverulegum og hugsanlegum áhrifum slíkra verkefna og lýsingu á mótvægisaðgerðum.

Fyrir framkvæmdir á sjó er einnig nauðsynlegt að framkvæma mat á áhrifum og greina áhrif á sjávartegundir og vistkerfi, ásamt lýsingu á mótvægisaðgerðum.

Aðrar gildandi takmarkanir

Vistgerðartilskipun Evrópusambandsins

Fuglatilskipun Evrópusambandsins

Fjölbreytileiki náttúru – mat á uppsöfnuðum umhverfisáhrifum (NO)

Losunarheimildir vegna hávaðamengunar (NO)

Hávaðatakmarkanir í lögum og stöðlum hluti leyfisveitingar (DK)

Sérstakt mat á áhrifum ef framkvæmd hefur áhrif á dýrategund í útrýmingarhættu (NS)

Lög um verndun sjávarspendýra (NS)

Áhrif á vistkerfi og mögulegar mótvægisaðgerðir (NS)

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AÐGANGUR AÐ LANDI

Samningar við landeigendur um aðgang að landi í eigu þriðja aðila eru að jafnaði forsenda vindorkuverkefna á landi.

Framkvæmdaraðilar og landeigendur gera með sér annað hvort leigusamning eða kaupsamning um undirliggjandi landsvæði.

Í ákveðnum tilfellum er gerð krafa um að samningar liggi fyrir áður en hægt er að hefja leyfisumsókn.

Í Skotlandi er samþykki landeiganda ekki skilyrði fyrir umsókn um svokallað „36. gr. leyfi“ en landeiganda er tilkynnt um umsókn þegar hún er lögð fram.

GREIÐSLUR FYRIR AFNOT

Landeigandi á rétt á þóknun fyrir afnot af landi á hefðbundnum viðskiptakjörum.

Í Noregi er aðilum frjálst að ákveða hvort greiðslur skuli inntar af henti sem eingreiðsla eða með jöfnum hætti yfir líftíma vindorkuverkefnis.

Í Skotlandi er oft samið um að leiga sé hærri talan af (i) grunnleigu, vísitölutengdri, miðað við afkastagetu eða (ii) breytilegri leigu, sem oft er reiknuð sem hlutfall af brúttó-tekjum verkefnis.

LEIÐIR LANDEIGANDA TIL AÐ TAKMARKA EÐA STÖÐVA VINNSLU

Hefðbundnar heimildir til eignarnáms og/eða yfirtöku landsvæðis sé landeigandi ekki samþykkur vindorkuverkefni. Mat á eignarnámi byggir á reglum hvers samanburðarríkis.

Landeiganda eru oft veittar heimildir til að kæra ákvarðanir, m.a. ákvarðanir um eignarnám, sem frestar og mögulega hindrar uppbyggingu verkefnis.

Í Noregi eru til staðar heimildir til að hefja framkvæmdir áður en dómstólar úrskurða um bætur á grundvelli eignarnáms, ef þörf krefur, að fenginni umsókn framkvæmdaraðila.

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Flutningskerfi raforku

- Möguleikar á tengingu við raforkukerfi og nýting á innviðum mikilvægur þáttur í þróun vindorkuverkefna.
- Er hægt að nýta þá innviði sem til staðar eru eða þarf að leggjast í kostnaðarsamar fjárfestingar til að tengja raforkuver við dreifi- og flutningskerfi?
- Í Danmörku er almennt skylt að tengja vindorkuver á landi við flutningskerfi og í Noregi er skylt að tryggja við upphaf verkefnis að hægt sé að tengja verkefnið við kerfið. Í Skotlandi er að sama skapi skylt að bjóða upp á tengingar og veita aðgengi.
- Í Danmörku kveður reglugerð á um kostnaðarskiptingu á milli framkvæmdaraðila og hins opinbera. Kostnaður við nýframkvæmdir skal greiðast af framkvæmdaraðila.
- Í Noregi er að sama skapi til staðar heimild til að rukka framkvæmdaraðila vindorkuvers um framkvæmdarframlag til að standa undir hluta fjárfestingarkostnaðar í flutningskerfi.

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Tekjur af verkefnum og hvatakerfi

Tekjur

Samanburðarríkin eiga það sameiginlegt að takmarkaðar sértekjur eru af vindorkuverkefnum, ef frá eru talin gjöld í tengslum við umsóknir og leyfisveitingar.

Í Noregi hefur nýlega verið samþykkt sérstakt vörugjald fyrir vindorkuver á landi með fleiri en 5 vindmyllur eða uppsett afl yfir 1 MW. Gjaldið nemur einum eyri (n. 1 øre) á hverja kWst af raforkuframleiðslu. Gjaldið ber að greiða til ríkisins en skal dreift frá ríki til viðkomandi sveitarfélags. Gjaldtakan hefur verið samþykkt en greiðslur munu ekki hefjast fyrr en árið 2023.

Skattlagning

Skattlagning lögaðila er í öllum samanburðarríkjum í samræmi við almennar reglur um skattlagningu fyrirtækja í atvinnurekstri.

Álitamál í Noregi um heimild til skattlagningar utan norskrar landhelgi. Norsk yfirvöld hafa lagt til lagabreytingar til að tryggja lagagrundvöll skattlagningar á vindorkuver á sjó.

Sérstakar reglur um skatt á vindorkuver á sjó í Frakklandi. Skatturinn jafngildir 18.605 evrum fyrir hvert MW af raforku sem framleitt er árið 2022. Afrakstur skattsins skiptist milli sveitarfélaga með strandlengju að framleiðslu, útgerðarsamtaka ofl.

Ívilnanir

Takmarkaðar ívilnanir eða opinber stuðningur eru í boði fyrir vindorkuverkefni í samanburðarríkjum.

Contracts for Difference (CfD‘s) í Danmörku og Skotlandi þar sem leyfishafa er tryggt ákveðið lágmarksverð fyrir framleiðslu.

Í Nýja Sjálandi er 15% skattaafsláttur í boði í tengslum við útgjöld til rannsóknar og þróunar (e. Research & Development).

Í Noregi og Nýja Sjálandi, þar sem raforkuframleiðsla á sjó er stutt á veg kominn, er talið líklegt að ívilnanir verði í boði á næstu árum.

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AÐKOMA STJÓRNVALDA OG GILDANDI LAGAUMHVERFI

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Ferli ágreinings– og dómsmála

Kæruleiðir og ferli ágreiningsmála

Ferli ágreiningsmála fer að jafnaði eftir því hver tók undirliggjandi ákvörðun, þ.e. hvaða stjórnvald og á hvaða stjórnsýslustigi ákvörðun var tekin.

Að jafnaði fylgja ágreiningsmál tengd vindorkuverkefnum hefðbundu ferli þar sem tæma þarf tilteknar kæruleiðir áður en hægt er að leita til dómstóla.

Sem dæmi má nefna að ákvarðanir dönsku Orkustofnunarinnar er hægt að skjóta til Kærunefndar orkumála. Ákvörðunum teknum af sveitarfélögum er hægt að skjóta til Kærunefndar skipulagsmála.

Ferli dómsmála

Ágreiningi varðandi vindorkuverkefni og framkvæmd þeirra er að jafnaði vísað til hefðbundinnar dómstólaleiðar í samanburðarríkjum. Staðsetning ágreinings og virði kröfu ákvarðar lögsögu dómstóla.

Í Frakklandi voru nýlega gerðar breytingar á ferli dómsmála en deilur voru áður algengar sem töfðu þróun og uppbyggingu verkefna. Dómsmál falla nú eingöngu undir lögsögu stjórnsýsluhæstaréttar (e. Council of State) og ekki er hægt að áfrýja niðurstöðu hans.

AÐKOMA STJÓRNVALDA OG GILDANDI LAGAUMHVERFI

//

LEYFI OG LEYFISVEITINGAFERLI

//

UMHVERFISMÁL

//

ÁLITMÁL TENGD EIGNARRÉTTI

//

FLUTNINGSKERFI RAFORKU

//

TEKJUR AF VINDORKUVERKEFNUM OG HVATAKERFI

//

FERLI DÓMSMÁLA

//

ANDSTAÐA VIÐ ÞRÓUN VINDORKUVERKEFNA OG VIÐHORF ALMENNINGS

//

Andstaða við þróun

Öll samanburðarríkin hafa fundið fyrir andstöðu almennings við þróun vindorkuverkefna og þá sérstaklega á landi.

Þróun vindorkuverkefna

Öll samanburðarríkin bentu á andstöðu almennings við uppbyggingu og framkvæmdir á vindorkuverkefnum, þá sérstaklega á landi.

Andstaða almennings er oft talin tengjast sjónrænum ágangi, hávaða, hættu á virðistapi húsnæðis og slæmum afleiðingum á náttúru og dýralíf.

“Not in my backyard”

Rannsóknir í Skotlandi sýna almennt mikinn stuðning við vindorkuver en stuðningur fer minnkandi ef verkefni er í nálægð við byggð.

Þróun vindorkuvera í Nýja Sjálandi hefur tafist vegna andstöðu “þriðju aðila”, þá helst frumbyggja. Erfitt hefur reynst að finna staðsetningar þar sem sjónræn menguð er takmörkuð.

Rannsókn frá 2017 í Danmörku sýndi fram á tiltölulega fá kærumál tengdum vindorkuverkefnum. Andstaða er meiri í aðdraganda og undirbúningi en minnkar eftir því sem fram líður.

Yfirstandandi málaferli

Samkvæmt svörum samstarfsaðila eru ekki yfirstandandi málaferli eða annar ágreiningur sem gæti haft áhrif á framtíð vindorkuverkefna í samanburðarríkjum.

Í október 2021 fell dómur í Hæstarétti Noregs þar sem deilt var um þróun vindorkuvera og hvort þau brytu gegn réttindum Sama til hreindýraræktunar skv. 27. gr. Sáttmála SÞ um borgaraleg og stjórnmálaleg réttindi. Leyfis-ákvarðanir og eignarnámsheimildir voru ógildar en óvissa er um framtíð umræddra vindorkuvera.

/ ÁLITAEFNI

- / Hvert er hlutverk ríkisins og hlutverk stjórnvalda/sveitarfélaga?
- / Ólík hlutverk eftir staðsetningu verkefna á sjó eða landi?
- / Hver ákveður landsvæði undir vindorkuverkefni?
- / Útboð verkefna eða verkefni að frumkvæði þróunaraðila?
- / Auðlindagjald fyrir vindorkuverkefni?
- / Á vindorkulöggjöf heima í Rammaáætlun?
- / Er raforkuframleiðsla úr vindorku samkeppnishæf? Hvatakerfi?
- / “Not in my backyard”
- / Er hægt að tryggja tengingar við flutningskerfi?

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