# Western Isles Transmission Project: Consultation on Final Needs Case and Delivery model
# Response by M A Murray Consulting Ltd May 2019

**I would comment on the Consultation Questions as follows:-**

**Question 1: Do you agree that the current network on the Western Isles needs reinforcing in order to connect additional generation?**
Yes. The Western Isles have the best Renewable Energy resource (in terms of Wind and Wave) in Europe and yet the local area is supplied from mainland power stations with standby on-island diesel generators. The current network is full with no additional capacity for anything over 3.68kW per phase. This has a seriously negative impact on community energy development in the Western Isles, which in turn is having a detrimental impact on our economic development, resulting in out-migration of talented young people. A decision to go for a 450MW cable would leave very little scope for community energy groups to take forward schemes which they have been contemplating for years and for any future community developments.

**Question 2: What are your views on the generation scenarios developed by SHE-T? We are particularly interested in views on the likelihood of wind generation on the Western Isles developing to the levels predicted by SHE-T's scenarios.**
In my view an appropriate range of generation scenarios have been explored by SHE-T. SHE-T's GHD-S3 and GHD-S4 options are particularly applicable to the community energy situation as they would allow additional capacity for local community projects to progress. I view these as realistic and credible options due to the vast resource available on island and strong demand from community energy groups to develop projects.
The local authority and partners have indicated the following volumes of generation are already contracted in the Western Isles:

| | |
|---|---|
| Lewis Wind Power Stornoway Wind Farm | 180MW |
| Lewis Wind Power Uisenis Wind Farm | 189MW |
| FORSA Druim Leathann Wind Farm | 49MW |
| **TOTAL** | **418MW** |

The following community led schemes are currently in Planning consideration and aiming to secure Grid contracts from August 2019 onwards:

| | |
|---|---|
| Arnish Moor Consortium | 35MW |
| Beinn Thulabhaigh Wind Farm | 5MW |
| Tol Mor (Barvas) Wind Farm | 24MW |
| Pairc Trust HydroElectric Pumped Storage | 24MW |
| **TOTAL** | **88MW** |

The following community led schemes are in pipeline (early development):

| | |
|---|---|
| Community Wind, Rural Lewis (Scoping Complete) | 35MW |
| Community Wind Rural Lewis (Scoping Commissioned) | 16MW |
| Community Wind Rural Lewis (Early Exploration) | 13MW |
| **TOTAL** | **64MW** |

In addition, the local authority has indicated that there is real potential for Floating Offshore Wind developments around Lewis but such developments will be dependent on having grid access.

**Question 3: What are your views on SHE-T's approach to optioneering, specifically relating to the routes and link capacities considered, and are there other options that SHE-T could have considered?**

I am of the view that SHE-T have undertaken a thorough review and the selected option (Arnish to Beauly HVDC) is the most appropriate option. There may be benefits in the future of upgrading the links to Skye in order to improve resilience, allow for back-flow, and to increase capacity.

**Question 4: What are your views on the CBA put forward by the ESO, particularly in relation to the results it produces?**

I am concerned that a different approach has been taken in Orkney and Shetland where a 'Steady State' of 0MW has been accepted. I am also concerned that there is inconsistency in terms of application of the 'Tipping Point' between Orkney and the Western Isles.

If 'Steady State' is discounted (as in Orkney and Shetland) and the 'Tipping Point' methodology used in Orkney is applied to the Western Isles the result would be that the 600MW cable performs best.

**Question 5: What are your views on the technical design and costs of the proposed Western Isles link?**

It is important to note that SHE-T have tendered for the 600MW link which takes account of the actual conditions to be encountered. A 450MW link has not yet been tendered and this process could add 12-15 months to the delivery timetable.

**Question 6: What are your views on the following points:**

**i. Do you agree with our minded-to position to reject the 600MW link conditional on only the two Lewis Wind Power projects securing CfDs?**

No, the minded-to position does not adequately take account of community energy developments which are currently in the pipeline, or connection for Floating Offshore Wind, or the development of pre-commercial Wave Energy technology. I was personally involved in wave energy projects on the west side of Lewis which had to be abandoned because of lack of grid capacity, but I have no doubt that these type of projects will come again in the future. Reduction to 450MW will also adversely affect the competitiveness of the Western isles anchor projects at CfD Auction.

**ii. What are your views on our analysis of the information, which suggests a 450MW link would represent the best outcome for existing and future consumers if only the two LWP projects secure CfDs?**

I take the view that a 450MW link is not in the best interest of UK consumers as it is very likely to require additional costs in the near future. A small additional cost now (between 3 and 7%) would enable an additional 33% of capacity to be provided for the future bearing in mind the potential renewable energy around the Western Isles and the interest in community energy development.

**iii. Do you consider that consumers could be appropriately protected from the costs of funding a potentially significantly oversized link if we were to approve the needs case for a 600MW link? If so, how could this be achieved?**

I am of the view that consumers could be appropriately protected if account is taken of the opportunity to deliver clean, renewable electricity into the GB energy system, thereby enhancing the UK's Security of Supply. The Western Isles has huge potential in terms of renewable energy which is currently excluded in terms of opportunity but which needs to be opened up given the recognition of the 'climate crisis' which requires a much quicker than expect route to decarbonisation.

I would also encourage OFGEM to explore initiatives which would enable the underwriting or insurance of the additional marginal cost of the 600MW cable in a way that protects the consumer without negatively affecting community energy projects.