

ABERDEEN CITY COUNCIL

COMMITTEE	Enterprise, Planning & Infrastructure
DATE	3 rd June 2014
DIRECTOR	Gordon McIntosh
TITLE OF REPORT	International Centre of Renewable Energy Excellence with focus on renewable hydrogen
REPORT NUMBER:	EPI/14/149
CHECKLIST RECEIVED	Yes

1. PURPOSE OF REPORT

This report is to provide information on the discussions and work which is currently being undertaken between Aberdeen City Council and United Nations Industrial Development Organisation (UNIDO) to create an International Centre of Renewable Energy Excellence with focus on renewable hydrogen in Aberdeen City.

This report also seeks approval to sign a MOU agreement with UNIDO, and to approve the release of funding of up to £150,000 for the execution of the preparatory phase of the centre. The preparatory phase includes the development of a needs assessment, the project document for the first operational phase of the centre as well as several national and international stakeholder consultations.

2. RECOMMENDATION(S)

That the committee:

1. Approves a MOU Agreement between Aberdeen City Council and UNIDO subject upon the terms being deemed acceptable by the Head of Legal.
- 2 Approves the funding request of £150,000 to develop the needs assessment, project document and to execute the stakeholder consultations.
- 3 Approve the continued discussions to create an International Centre for Renewable Energy Excellence with focus on renewable hydrogen in Aberdeen City. Updates will be given on a regular basis to Committee on the development of the Centre should it be approved.

- 4 Approves Officer overseas travel connected with UNIDO subject to all internal service procedures being followed.

3. FINANCIAL IMPLICATIONS

The total cost of funding the preparatory study is estimated at £250,000, of which £50,000 will be met through EU funding and £50,000 contributed from UNIDO. This leaves the remaining sum of £150,000 which will be met by Aberdeen City Council. Funding is available from existing reserves earmarked for City development.

The preparatory study will undertake a financial sustainability study, however it is anticipated the on-going costs of the Centre for Excellence will be maintained through private, EU and international funding as well as Aberdeen City Council and local partners.

There may be some travel costs associated as individuals to undertake meetings between partners which would be met from the service travel budget. We currently cannot give an estimated figure till we exactly what travel will take place but will ensure that current service procedures are followed.

4. OTHER IMPLICATIONS

Travel

As far as possible, measures relevant to the destination will be taken to reduce any risks in line with Council Policy.

Risk Management

It is important that Aberdeen is fully represented in all European and International matters, especially those dealing with energy issues, and all opportunities for influencing policy and the development of transnational projects for the City's benefit are grasped in order that opportunities are maximised. This level of participation will help increase the understanding of the new programmes and will assist in developing the capacity to successfully develop new projects and work with other International cities that will benefit Aberdeen City.

Human Rights/Equality/Diversity

European Policy takes full account of the Equal Opportunities Policy of the Council.

Sustainability

Aberdeen City Council has a clear contribution to make to sustainable development with an emphasis on enhancing productivity through improved resource efficiency, new business opportunities in the developing market for sustainable technologies and delivering better and more efficient Council services. By the development of a Centre of Renewable Energy Excellence, it will give Aberdeen City Council the opportunity to look at the possibilities of best practice and drawing down more funds from EU programmes to raise the

quality of life through increasing economic opportunity for all on a socially and environmentally sustainable basis.

Environmental

International activities are implemented in line with the aim of achieving a quality and sustainable environment, as well as a carbon neutral economy.

Social

The principles of Social Inclusion underpin European cohesion policy.

Economic

International representation and inter-regional networking contributes to the City's overall effort to maximise opportunities and to promote its interests, both at home and overseas with the aim of creating sustainable economy and energy efficiency environment.

5. BACKGROUND/MAIN ISSUES

Within the UNIDO organization exists the Energy and Climate Change Branch which comprises of a Renewable Energy Unit and Energy Efficiency Unit. . UNIDO has long recognised that environmental issues must be addressed in order to facilitate an inclusive and sustainable industrial development in developing countries and economies in transition. Their belief is the promotion of renewable energy and energy efficiency markets and industry at a systematic level plays an integral role in addressing the challenges of energy poverty, energy security and climate change. Based on discussions with Aberdeen City Council, UNIDO would like to offer support and assistance in establishing an International Centre for Renewable Energy for Excellence with strong focus on renewable hydrogen within Aberdeen City. It was agreed that the center will have a strong focus on promoting knowledge and technology transfer to emerging and developing countries. To achieve this they are seeking a MOU agreement with Aberdeen City Council.

UNIDO can significant provide support to Aberdeen City Council in establishing a Centre for Renewable Energy Excellence and value add to the Centre by providing an established network, proven experience, international visibility as well as lessons learnt from other, international Centres. The activities of the International Center would be promoted through the UNIDO network of regional sustainable energy centers in Africa, the Caribbean and the Pacific.

It should be noted that UNIDO only wish to support the Centre and do not wish to own it, the Centre will belong to Aberdeen City Council and it will have its own local identity from the beginning. UNIDO will assist in making the center an important hub for promoting renewable hydrogen solutions in emerging in developing countries by promoting capacity building, knowledge management, awareness raising, policy support and investment and business promotion. A preparatory process, which is required as part of the criteria from UNIDO, will be undertaken which will be part funded by UNIDO and EU

funding. During the preparatory phase the institutional and technical design of the center would be determined.

Aberdeen City is well placed to have the Centre for Renewable Energy Excellence with focus on renewable hydrogen given Aberdeen's history, status as an energy hub and large international population. Aberdeen has a strong knowledge base from the oil and gas sector and the Renewable Energy Centre can be developed through the knowledge and skills which are already in the city. The Centre would also be complementary to the Offshore Wind Deployment Centre, AREG and the East Coast Renewables Group.

Though the Centre would be focusing on different aspects of renewable energy research and demonstration, it is visualised Hydrogen would be a large element of the research and the unique selling point of the Centre given our expertise from projects such as Hydrogen Bus Project and HyTrEc, as well as established networks such as Hydrogenics, HyER and Scottish Hydrogen Fuel Cell Association.

By Aberdeen's transitional phases with a Hydrogen Economy, it will be meaningful to other international countries and cities, especially given there is much trust placed in Aberdeen through the existing energy industry and the high number of international delegations which come to learn from us as well as requests to provide them with assistance with developing energy strategy. Much of the work of Centre might be based on partnerships with emerging and developing nations and as many of the Aberdeen workforce work in Africa and Papua New Guinea, there already exists company interests and corporate social responsibility by Aberdeen companies towards these countries.

It is important to Aberdeen for an economic future to have the International Centre of Renewable Energy Excellence; with the expected decline in the oil and gas sector renewables and Hydrogen will play an important role in the diversification of subsea companies. If the centre is approved, much of the de-risking of renewable technologies and commercial buy-in will have taken place removing the barrier to market entry and incentivise private investment. Aberdeen would become an expert industry in renewables and Hydrogen, as well as in the oil and gas industry. This would have knock-on effects on the sustainability of Aberdeen's economy and environment as well as job opportunities for future generations.

Through the Centre and UNIDO's international network, technology and knowledge transfer will take place between the Aberdeen and developing and emerging countries so they can embrace a low carbon pathway empowered by innovative, smart and locally relevant energy solutions. Particularly urban areas in developing and emerging countries offer market opportunities for hydrogen solutions in the industrial and transport sector. Moreover, it hydrogen can offer opportunities to solve storage challenges of intermediate renewable energy generation facilities. Aberdeen already has a number of energy links with Africa and Asia, which can be increased through the connection with UNIDO. Additionally to this, many energy industry employees

have experience of working in developing countries such as Africa and New Equatorial Guinea where the conditions are often difficult. Aberdeen can help influence policy development and implementation by international local government through the research undertaken at the Centre.

The International Centre for Renewable Energy with focus on hydrogen will give Aberdeen City international visibility and platform for the work it is undertaking and opportunity for the research it has undertaken to embed within important policy decision making at high, international level. Moreover, it will open up knowledge and technology transfer possibilities - which translate into market opportunities - to industrialized, emerging and developing countries. It will explore and potentially secure options for energy security not only on a local and national basis which can help reduce fuel poverty, but also for emerging and developing countries. This makes the work of the Centre smart, inclusive and sustainable which is fitting with EU and local policy. It is essential to remember developed countries are historically responsible for the increase of global emissions throughout the industrial revolution and from lifestyle choices. As emerging and developing countries develop without clean energy technologies and standard of life also increases placing pressure on electricity, cars etc the level of global CO₂ emissions will also significantly increase and heighten climate change impacts. Technology and knowledge transfer must take place to provide local clean energy solutions to avoid future degrees of climate warming.

6. IMPACT

Several of the challenges of the Community Plan identified in the Single Outcome Agreement are also supported, such as: Leading the City, Being Informed, Getting Involved, Land Use and the Environment and Clean City, Prosperity and Jobs, and Aberdeen's Image.

7. MANAGEMENT OF RISK

As far as possible, measures relevant to the destination will be taken to reduce any risks in line with Council Policy.

It is important that Aberdeen is fully represented in all European and International matters and that all opportunities for influencing policy and the development of transnational projects for the City's benefit are grasped in order that opportunities are maximised. If this is not done the Council could be at risk of not being able to draw down European grant monies.

8. BACKGROUND PAPERS

Inclusive and Sustainable Industrial Development, UNIDO
UNIDO Renewable Energy Unit, What We Do, UNIDIO

9. REPORT AUTHOR DETAILS

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