**Energy Update to County Council 14th November 2016**

With a proven track record of social and technical innovation and in recognition of our responsibility in meeting national energy targets, South Dublin County Council have commited to a broader, ‘holistic’ view of sustainability, encompassing water, waste, mobility, spatial planning and energy since its establishmentin 1994.

In October 2011 after a successful SDCC led, joint stakeholder bid, Tallaght was awarded Exemplar Sustainable Energy Community (SEC) status by the Sustainable Energy Authority of Ireland (SEAI). Tallaght is one of only four such communities in Ireland, along with Dundalk, Dublin City & Tralee. This aims to create exemplar sustainable energy communities to lead wider SEC growth at a national strategic level. Community stakeholders work together to achieve energy savings. This provides us with a partner in SEAI for technical guidance, mentoring & project management. The Steering Group includes The Square, Tallaght Hospital, Institute of Technology Tallaght, local schools, Residents/Community Groups, South Dublin Chamber of Commerce, local businesses, Housing Associations and Southampton City Council.

Through this commitment SDCC set up a multi-disciplinary, cross departmental Energy team who have engaged with networks, from disadvantaged communities through public sector to the largest private sector corporations. We have established the use of ICT to encourage citizen involvement and created a dynamic base for decision making and public dissemination

In May 2011 SDCC was part of a European Partnership who were successful in winning the EU Intelligent Energy Europe (IEE) Project, Leadership in Energy Action Planning (LEAP); A European Partnership helping Local Authorities to plan and deliver local sustainable energy practices and solutions with a number of European city partners.. Through this project the Energy team produced our Baseline Emissions Inventory in 2011. SDCC became signatories of the Covenant of Mayors in 2012 and developed a Sustainable Energy Action Plan (SEAP) approved in 2013.

The SEAP outlines the most integrated approach to climate change and sets out how the County can become more energy efficient across all sectors, Residential, Transport & Commercial. The SEAP covers the entire geographical area of SDCC. The wider community including residents, businesses, community groups, schools etc are key stakeholders in the process. The three pillars of the SEAP are Record, Reduce and Replace and specific actions have been identified in each category.

**Record Actions achieved to date:**

All Council live MPRN (electricity) and GPRN (gas) data is available for annual review by SEAI and published in its Annual Report on Public Sector Energy Efficiency Performance. SDCC actual energy use for 2015 has shown a 24.3% improvement on baseline year, which is 7.7% better than our target glidepath towards compliance with .Kyoto targets for 2020.

“SPECIAL” EU project in partnership with SEAI, DECLG and IPI training for Local Authority staff in Local Area Renewable Energy strategies (LARES) has resulted in energy-demand mapping of South Dublin County with CODEMA , a national first and “South Dublin Spatial Energy Demand Analysis” has since been rolled out to all Dublin local authorities.

Energy-audits are completed on all SDCC buildings by category – swimming pools, sports-halls, community-centres, depots and libraries. This is the basis for SDCC energy-efficiency programmes ongoing year on year.Display Energy Certificates are on view in all public buildings over 250sqM Public lighting is now on a database with each public light numberedand linked to G.I.S. mapping.

**Reduce Actions( energy saved and fabric upgraded) achieved to date:**

There have been a number of energy reduction programmes implemented to date:

In our Public Buildings sustainable building measures and controls include: Advanced Building Maintenance and Lighting Control Systems, Enhanced Building Fabric upgrade

with sustainable materials and airtight construction including housing stock as follows.

SDCC owns 9,085 Dwellings currently (6,600 pre-1990)

‘Community Enterprise’ Programmes up to ‘08 4760 Houses upgraded

SDCC Refurbishment Programme 2010-2013 360 Houses fully upgraded to end 2014

DECLG and SEAI BEC programmes 2013-2016 2100 houses upgraded to date

Window-Replacement Programme 2010-2016 1185 Houses complete to date

Gas Fired Central heating Programme 2800 Houses completed

Tenant Boiler Servicing Programme 6,000 annually

Think Energy - Optimising Power at Work” – Energy Ambassadors signed up in County Hall

Energy and water-use reductions in Tallaght Stadium and other SDCC buildings complete

Replacing existing public lighting with LED lamps and green photo cells 1784 completed in 2015 and 2016

GPS incorporated into fleet linking vehicle movements to work-schedules and GIS mapping systems.

SEAI Better Energy-Communities established in Glen na Smole, Knocklyon and Terenure/Templeogue with successful projects completed annually.

“Green-schools” initiative is pursued on an annual basis with next cluster centred on Lucan

**Replace Actions ( new renewable energy projects) achieved to date:**

In our Public Buildings renewable energy technologies installed include: Solar Water-heating, Combined Heat & Power, Biomass boiler (wood pellet), Rainwater Harvesting, Photovoltaic solar panels, Heat Exchangers (65% recovery). Ballyroan Library is a passiv-status public building.

SDCC Memorandum of Understanding with MEGA (Micro-Energy Generation Association) working on the innovative smart communities model with projects including Freqcon grid-balancing unit installed at County Hall ( first of its kind in Ireland) linked to 50kPhotovoltaic solar panels and 500 Kw generator. In September 2016 SDCC were part of the winning team for the EU Interreg Project, Heatnet which will look at transition strategies for delivering low carbon district heat. Over the next four years we will work with our partners to facilitate the implementation of low-carbon, energy and climate protection strategies to reduce GHG emissions in North Western Europe, by creating an integrated approach to the supply of renewable and low carbon heat (incl. waste heat) to residential and commercial buildings. This will be developed and tested in 6 local district heating and cooling networks (DHC) in UK, Ireland, Belgium, France, and the Netherlands. Project Partners are CODEMA, Plymouth City Council, Aberdeen City Council, Stad Kortrijk in Belgium, Mijnwater B.V. Heerlen and Hogeschool van Amsterdam in The Netherlands and Ville de Boulogne-sur-Mer, France. The SDCC/Mega project will centre on the development of a district-heating network initially between the Hospital and County Hall but growing into a network for Tallaght town centre generating heat and power through CHP and balancing its contacts with the grid .

Into the future, a report on small-scale hydro-electric power-generation in the County is now completed and will be pursued .Design development of a Transport Interchange at The Square, Tallaght is also underway. National Transport Authority and the 4 Dublin authorities are committed to a network of dedicated cycle-paths continues to be rolled out.

All new-build houses are required under Building Regulations to install local renewable energy generation such as Solar PV and electric heat-pumps. The award-winning scheme completed at Valhalla, Clondalkin achieved Near-Zero status with an integrated approach linking provision for disabled tenants to Smart energy and communications systems..

The installation of ‘Climote’ smart metering in 4000 Council houses is well underway and will be completed in 2017