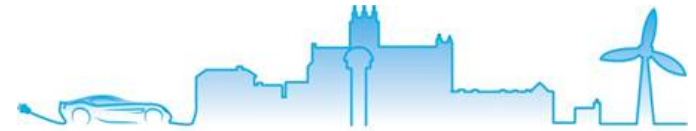




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ecovillage
inspired by life



SMART FUTURE CITIES 2015

*Energy, Transport & The Built Environment
Innovations for Future Cities*

NEWCASTLE, 1-3 OCTOBER



Office of
Environment
& Heritage



Ecovillages:

Novel Solutions for
sustainable living
from Findhorn and Narara

John Talbott

Toby Roxburgh



community of around 500
founded in 1962

model for 21st century living ?

sustainability:
ecology – economy – community - well being





LOW CARBON LIVING EMBODIED

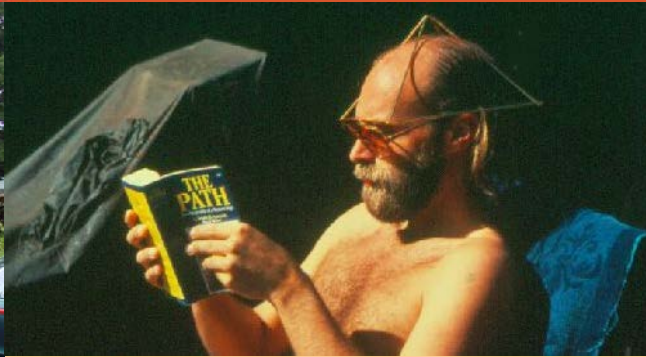
- super insulated triple glazed light weight buildings
- locally sourced sustainably harvested timber
- non toxic paints and finishes
- wind park net exporter of energy
- living machine waste water treatment
- lowest measured ecological footprint in developed world
- village economy with it's own currency
- inclusive social & governance structures
- consciously building community







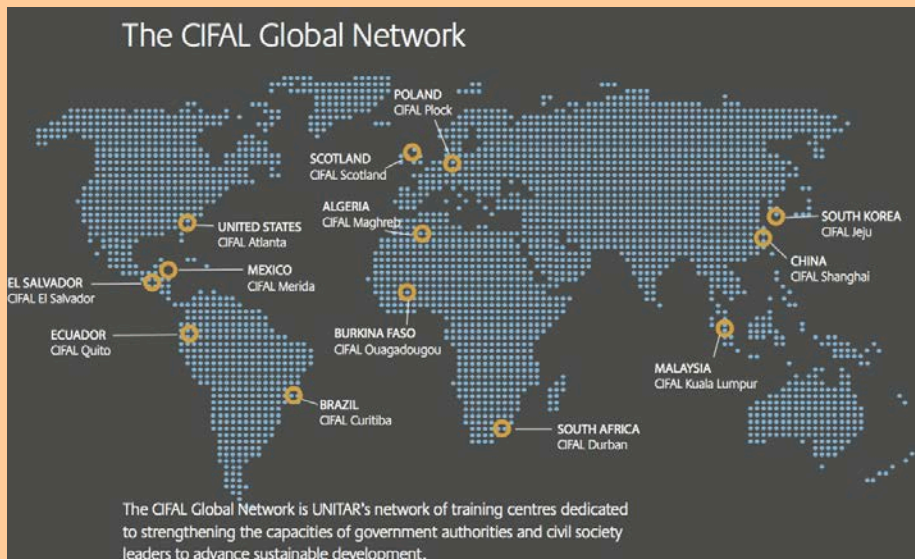
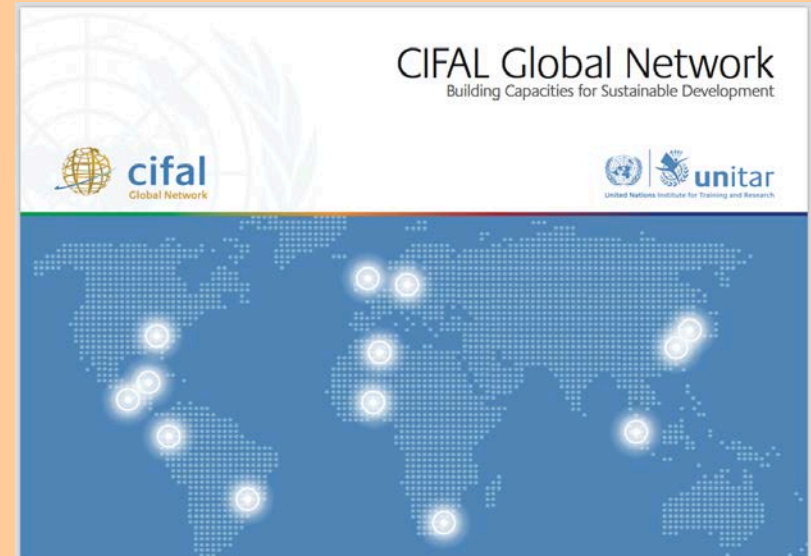




If it's not fun
it's not
sustainable



United Nations CIFAL/UNITAR training centre





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Narara Ecovillage Co-operative

The unique element of the project:





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ecovillage living

SUSTAINABLE COMMUNITY

Social
Ecological
Economic





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Pretty Normal

Village development

Live - work - play

Community

Social infrastructure

shared facilities

community gardens

businesses

education programs





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Unusual

We're a Co-op

Mixed use

Community title

Permaculture





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Integrated Water Cycle

drinking water



stormwater retention



wastewater treatment and re-use





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Minimise Vehicle Traffic

Pedestrian priority

Reduced car use

'green transport' scheme

Car sharing

Community bus





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Energy & Buildings

Produce our own energy on site



Energy efficient & healthy buildings





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Recycling and Re-use

Adaptive reuse of existing structures and/or re-use of materials





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Conservation

respect restoration and protection of the natural environment



Honouring heritage of the site





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The site:

63 ha

Native forest

Dam

Flood plain





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Stage One:
42 standard lots
18 cluster dwellings
roads & infrastruc
landscaping





Education Centre

Research and University collaboration

CSRIO, U of Newcastle, UNSW, Coalition for Community Energy, CRC, NSW Office of Environment and Heritage;

Local schools, councils & companies

Narara Valley HS, various 'eco building' companies

Ecoburbia - local event for promoting sustainability

Conservation & Bush Regeneration

Youth Connections, Green Army, COSS

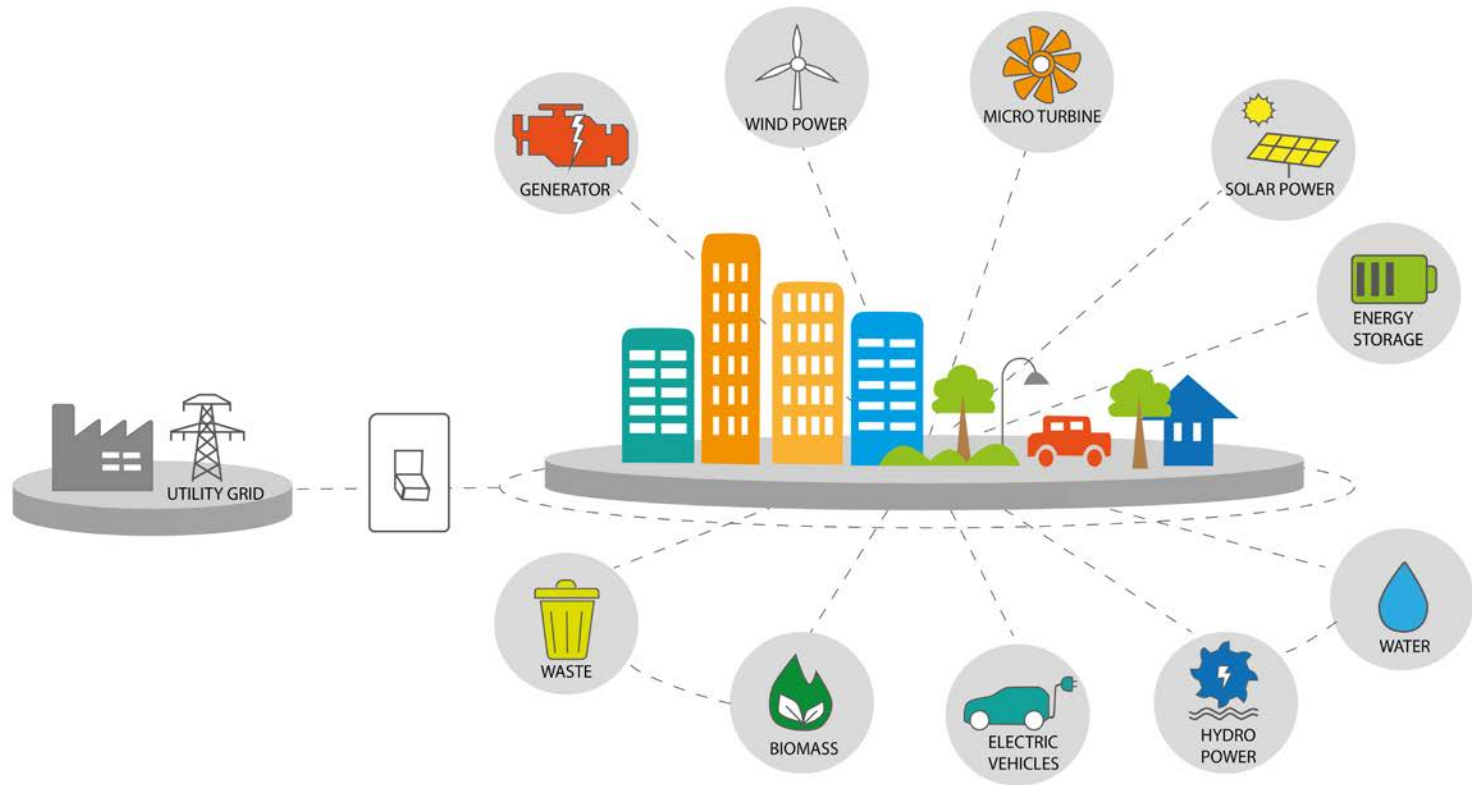
United Nations ??





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The Smart Grid



E2DESIGNLAB



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Smartgrid:

Energy efficiency

Demand Management

3kW+ roof PV

30kW+ community PV

Central metering & billing

Carbon Neutral





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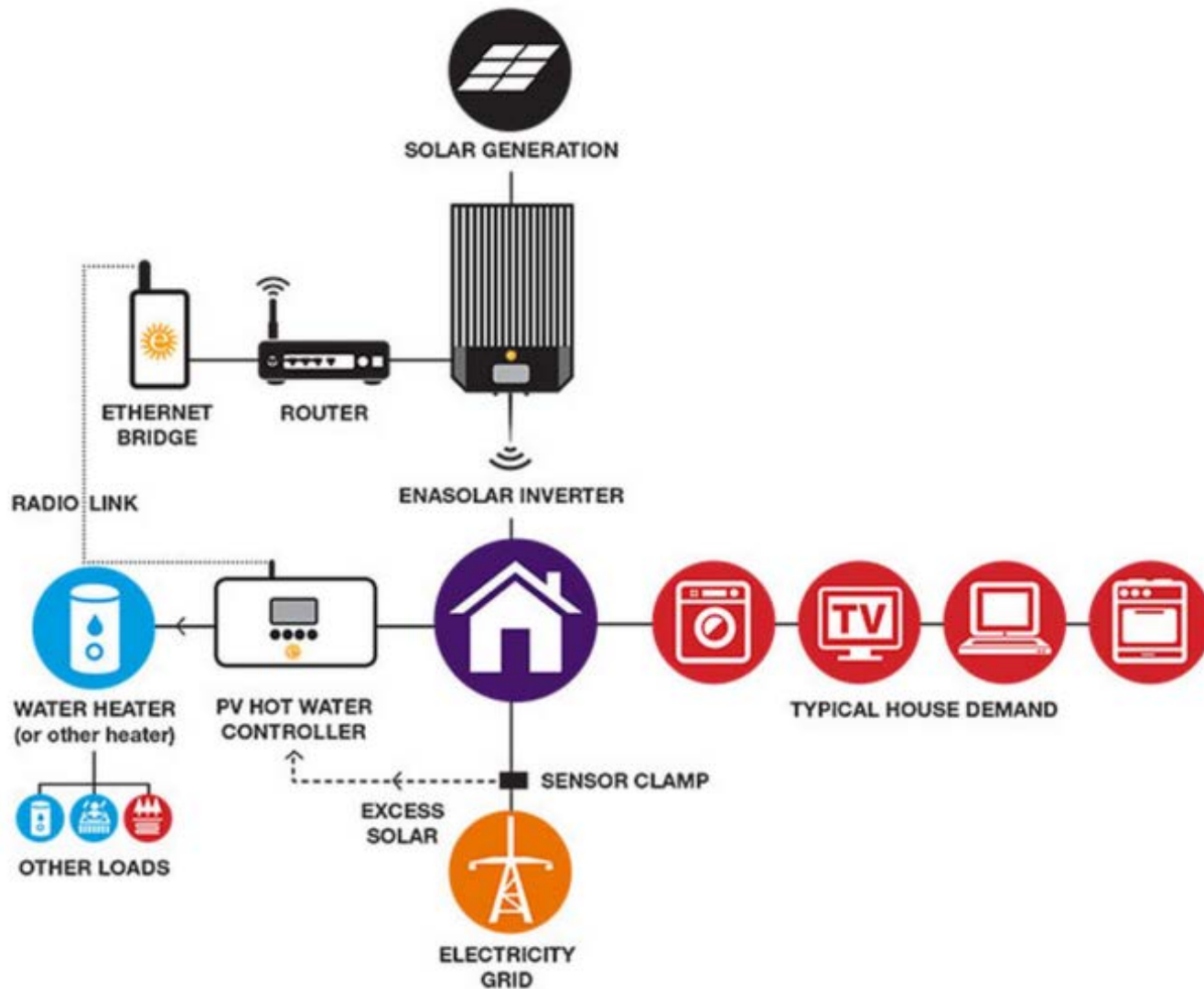
30kW roof solar





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The Smart House





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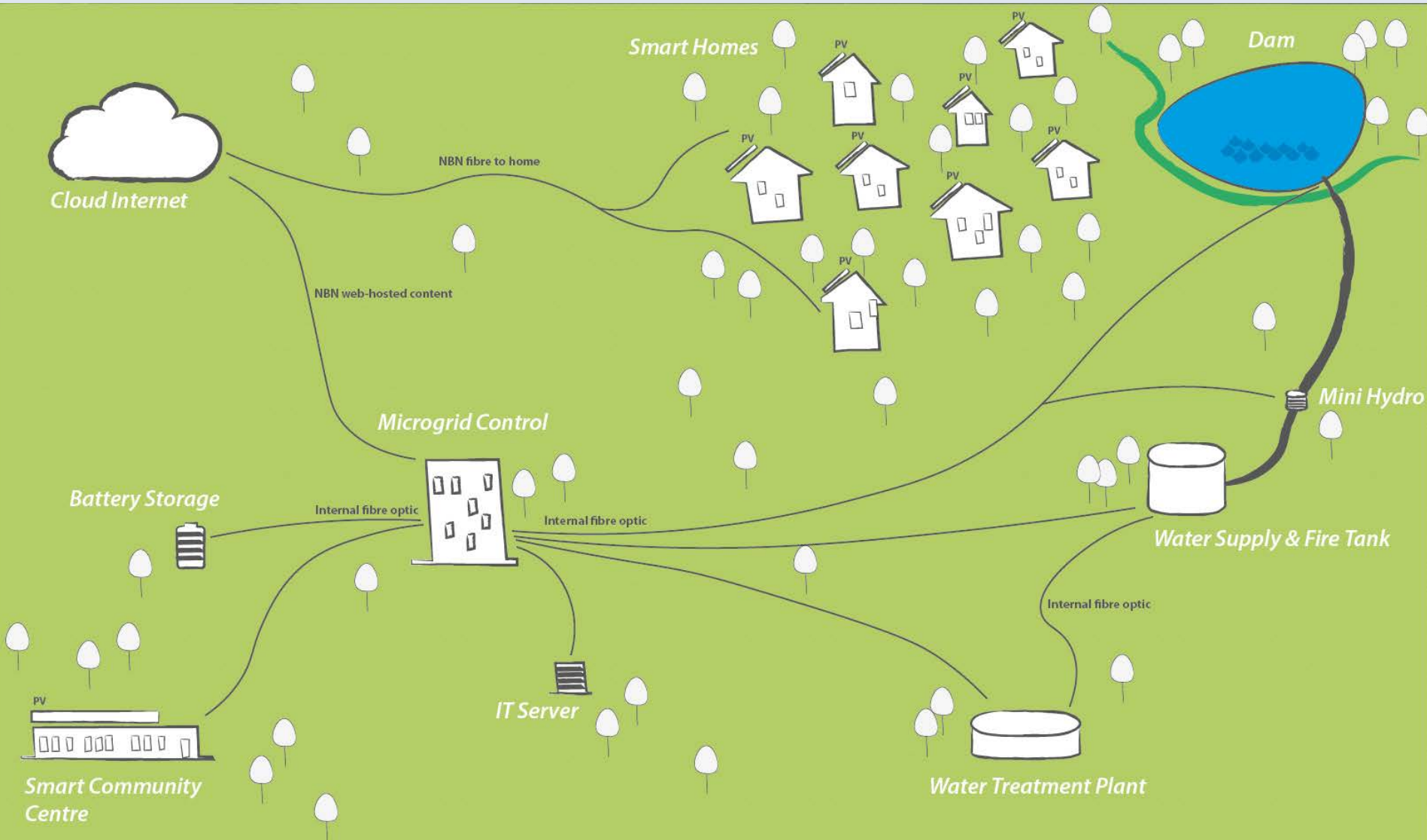
Electric Vehicles





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The Smart Grid





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Narara Smartgrid

Single 11kV connection

Smart houses

Smart community buildings

Smart communication & billing

Autonomous water system

Carbon Neutral

Options for energy storage / off grid