

# RENEWABLES UPDATE

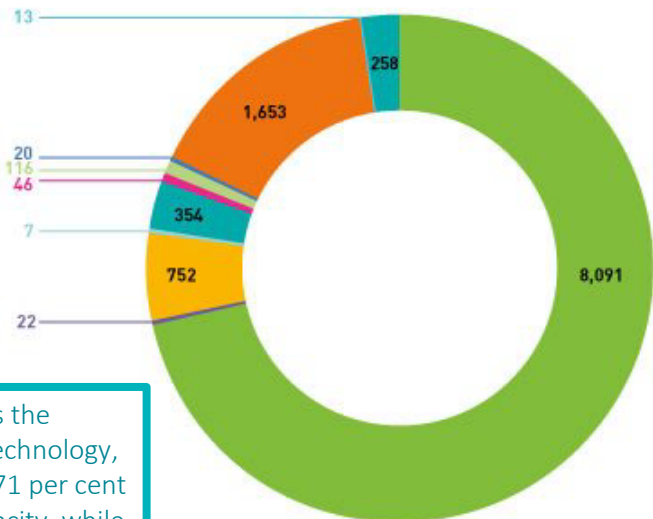
## Climate Change Environmental Action Group

*Audrey Martin – Transformation, Projects and Regeneration Manager*



Scottish Renewables has compiled the key statistics on the development of Scotland's renewable energy sector from a variety of government and industry sources in order to track the industry's growing contribution to our energy needs, our economy and our environment.

## INSTALLED CAPACITY BY TECHNOLOGY Q1 2019(MW)



Onshore wind is the biggest single technology, accounting for 71 per cent of installed capacity, while hydro, solar & bioenergy are Scotland's other major sources of renewable power.

Source: [BEIS Energy Trends](#)

## TOTAL = 11,332 MW

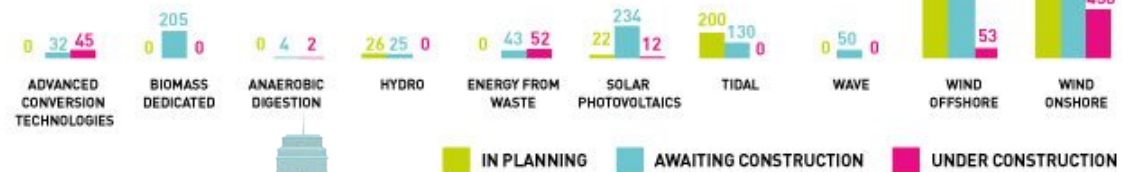
- ONSHORE WIND
- WAVE/TIDAL
- OFFSHORE WIND
- SEWAGE SLUDGE DIGESTION
- SOLAR PHOTOVOLTAICS
- ANAEROBIC DIGESTION
- LANDFILL GAS
- ENERGY FROM WASTE
- HYDRO
- ANIMAL BIOMASS
- PLANT BIOMASS

## PRE-OPERATIONAL CAPACITY OF RENEWABLES PROJECTS (MARCH 2019)

TOTAL = 12,946MW

MW

There is significant additional capacity in development across Scotland, with projects either in planning or already consented which total over 12GW. Again, capacity increases in the short term will come from onshore wind, with nearly 4GW of capacity already consented and a further 3.4GW in planning.



Source: [Scottish Government - Renewable Planning Statistics - Summary Table](#)



# THE RENEWABLES INDUSTRY IN ARGYLL AND BUTE 2020

Argyll and Bute's abundance of wind, water and wave energy, and the energy potentially generated by biomass present key sustainable economic opportunities, which if harnessed and managed correctly can offset many of the problems faced by our peripheral and fragile locations.

## WHAT ARE OUR STRENGTHS?

Argyll and Bute has an abundance of wind, water and wave energy due to its geographical position on the west coast.

Argyll and Bute is home to strong supply chain businesses such as CS Wind (Wind Tower Manufacturer), Renewable Parts and GSS Marine (Marine Services Support) which operate worldwide in the industry.

Argyll and Bute has a significant and distinguished track record of pioneering and delivering renewable energy projects, we are well placed to respond to the pressing timelines for the development of this industry and take advantage of the economic opportunities being offered to our communities from renewable energy.

Argyll and Bute champions innovation in the industry and is home to The Scottish Association for Marine Science (SAMS) is Scotland's largest and oldest independent marine science organisation, delivering marine science for a productive and sustainably managed marine environment through innovative research, education and engagement with society. In addition we have also seen a number of testing and demonstration wave and tidal renewable sites in Argyll and Bute.

## WHAT ARE OUR CHALLENGES?

Argyll and Bute will always have challenges around logistics due to its geographical position to the UK. Exporting and importing in the industry can be costly due to challenging infrastructure.

Argyll and Bute's offshore wind potential is still untapped. This is because of challenges related to the sea state, depth of the water and ecological designations around the seabed on the west coast and the cost of undertaking feasibility studies to ensure the environment is safe to build sites. However emerging technology may mitigate these risks in the near future.

In many areas of Argyll and Bute there is limited spare grid capacity. Improvements to the grid system can be both expensive and take considerable time to implement which creates a barrier for developers.

Argyll and Bute, as well as the rest of the UK have suffered from the cut in onshore subsidies from the UK Government for onshore wind. This has resulted in many approved onshore projects taking longer to secure financial closure.





# THE ARGYLL AND BUTE INTERACTIVE RENEWABLES MAP

There is an even spread of sites in Argyll and Bute with The majority being micro hydro schemes

The [interactive renewables map](#) is a tool incorporated into our Renewable Energy Action Plan which allows people to access up to date information from our planning system on Renewable Energy sites in Argyll and Bute.

## KEY FACTS

7 Small scale community windfarms In Argyll and Bute with a combined Capacity of 2.4MW

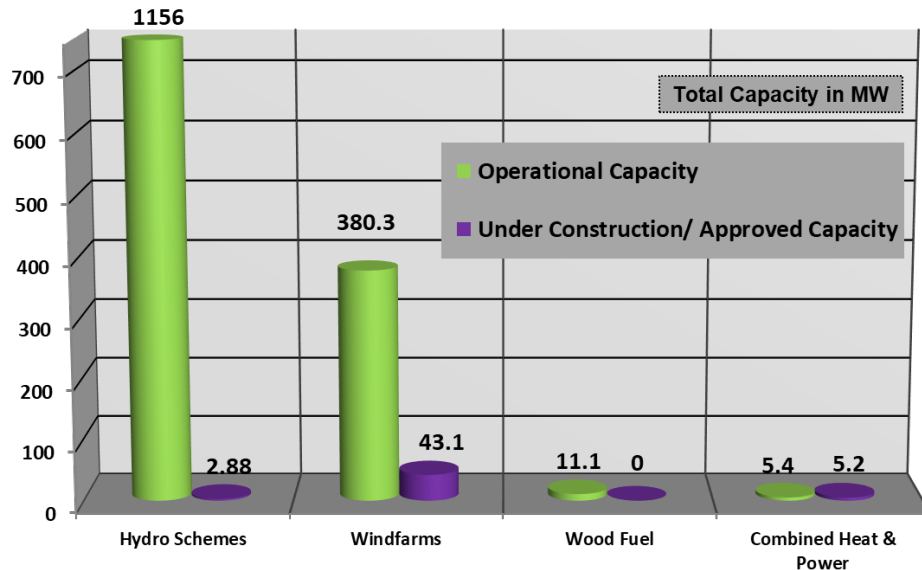
15 operational Commercial windfarms (7 on Kintyre Peninsula) with a combined Capacity of 346 MW

There is 1 commercial windfarms currently Approved in the Planning system and yet to begin construction

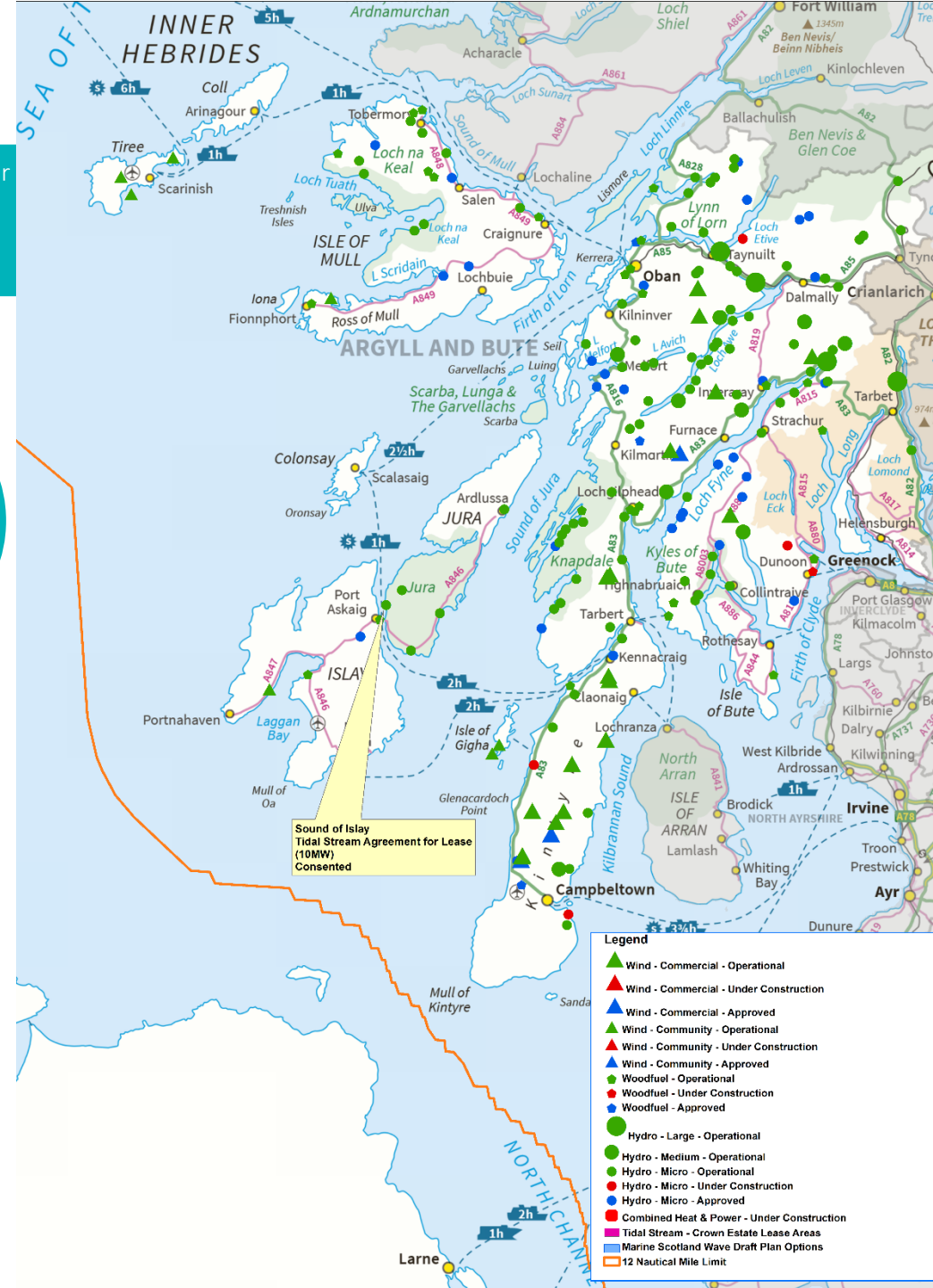
The latest commercial windfarm to begin construction in September 2019 is Beinn An Tuirc Phase 3

## ARGYLL AND BUTE RENEWABLES DEVELOPMENTS

Total of 800 Operational renewable sites in Argyll and Bute Generating 1.5 GW of Renewable Energy



PLEASE NOTE THIS CAPACITY DOES NOT INCLUDE OFFSHORE WIND/WAVE AND TIDAL SIDES



**Our vision is:**

*“Argyll and Bute will be at the heart of renewable energy development in Scotland by taking full advantage of its unique and significant mix of indigenous renewable resources and maximising the opportunities for sustainable economic growth for the benefit of its communities and Scotland.”*





ARGYLL AND BUTE  
RENEWABLE ALLIANCE

# WORKING IN PARTNERSHIP



## WHAT IS ABRA?

The Argyll and Bute Renewable Energy Alliance (ABRA) was established in 2011 and brings together key public and private sector partners - including Argyll and Bute Council, the Scottish Government, Highlands and Islands Enterprise, Marine Scotland, Scottish Power Renewables, Scottish and Southern Energy, The Crown Estate Scotland, Scottish Natural Heritage and Skills Development Scotland - to ensure a greater awareness of all the issues relating to renewable development across Argyll and Bute, and to act as a key mechanism to assist with delivering the [Renewable Energy Action Plan](#).







ARGYLL AND BUTE  
RENEWABLE ALLIANCE

## THE RENEWABLE ENERGY ACTION PLAN

This Renewable Energy Action Plan has been developed to assist Argyll and Bute realise its vision for the development of renewable energy:



“Argyll and the Islands will be at the heart of renewable energy development in Scotland by taking full advantage of its unique and significant mix of indigenous renewable resources and maximising the opportunities for sustainable economic growth for the benefits of its communities and Scotland.”

*New Actions  
from 2019/20*

Ref.	Action	Partner(s)	Timescale
ABRA 5	Review supply chain capacity and key capabilities in light of opportunities arising from future Crown Estate Scotland leasing rounds		2019/20
ABRA6	Investigate opportunities for future Crown Estate Scotland offshore wind easing rounds		2019/20
ABRA 7	Investigate opportunities for future local energy systems and innovative storage techniques		2019/20



Action	Partner(s)	Timescale
Ensure the grid is fit for purpose to meet renewable energy opportunities – Inveraray-Crossaig overhead line replacement, Northern Argyll substation, overhead line to Taynuilt and submarine cable replacement programme	ABC, HIE, SSEN	2021
Work with partners to examine opportunities for Smart Local Energy Systems/alternatives to grid improvement e.g. ACCESS project on Mull	LES, CES, SSEN	Ongoing
Promote Campbeltown as an energy port with future potential for Operations and Maintenance (O&M) activities associated with offshore renewables in the Irish Sea, Malin areas and along the Western Seaboard	ABC, HIE, SDI	Ongoing
Local supply chain events associated with renewable sector developments and online supplier portals e.g. Open 4 Business Portal	Renewables developers/HIE	Ad hoc as development occurs
Support to non-renewables sector businesses to expand into the renewables sector	ABC, HIE, SDS	Ongoing
Promote European Marine Science Park as a location for renewables related development	HIE	Ongoing
Consider future renewables business accommodation and land requirements and feed into Local Development Plan preparation and any relevant national policies	ABC, HIE, supply chain	Ongoing
Work with developers and future investors to identify any skills shortages	HIE, SDS, renewables developers, supply chain	Ongoing
Maintain suitable courses to support renewables and energy skills	Argyll College, UHI	Ongoing
Consider opportunities for apprenticeship/work experience programmes	SSEN, renewables developers	Ad hoc as development occurs
Schools education and skills career days	SPR via ALI Energy, ABC, renewables developers, SSEN	Ad hoc as development occurs
Investigate opportunities for shared ownership of renewables and respond to future Scottish Government consultations	Renewable developers, LES	Complete
Support community benefits from renewables development and respond to future Scottish Government consultations	Renewable developers, LES	Complete
Support community based renewables through the Community Renewable Opportunity Portal (CROP), direct support and events	LES, ABC	Ongoing
Influence legislation and policy development to ensure delivery of overarching ABRA vision and to assist in securing a successful route to market	ABC, HIE, renewable developers, LES, CES, SDS	Ongoing





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Electricity Networks

Powering our  
community



## GRID UPDATE

INVERARAY - CROSSAIG

NORTH ARGYLL

RIIO -T2 BUSINESS PLAN





# ONSHORE WIND IN ARGYLL AND BUTE

COMMUNITY  
BENEFIT TOTAL  
: £800,000





# TACKLING CLIMATE CHANGE OPPORTUNITIES

- INCREASE OPPORTUNITY FOR COMMUNITY OWNERSHIP OF COMMERCIAL ONSHORE WIND SITES
- POTENTIAL TO EXPAND ABRA REMIT TO INCLUDE ENERGY
- LOCAL ENERGY SYSTEMS/NETWORKS TO OVERCOME GRID CAPACITY CHALLENGES
- POTENTIAL OFFSHORE WIND PROJECTS – SECURING MAXIMUM ECONOMIC BENEFIT
- FUTURE WAVE AND TIDAL PROJECTS – SECURING MAXIMUM ECONOMIC BENEFIT