



CREDIT

Centre for Renewable Energy  
at  
Dundalk IT

# Small Wind - Ireland

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U.S. Small Wind Conference  
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# Recent History of Small Wind

- Policy makers became interested in small wind in 2008 as global activity was increasing
- Planning exemptions for certain turbine heights and a relatively easy grid connection process were put in place
- A specific product certification scheme was not in place but activities in other countries (e.g. MCS in UK) were closely monitored for potential adoption
- Triple E (energy efficient equipment) register of products

# Recent History of Small Wind

- Small and Micro Generation Pilot Field Trial was initiated at consumer sites (2009 –2012)
- This included small wind, solar PV, micro-hydro and micro-CHP
- Assess technical, financial and regulatory issues
- Up to 50% capital grant assistance for participation

# Recent History of Small Wind

- For first 4000 applications
- FiT €0.19/kWh (~ \$0.23/kWh) for first 3000 kWh exported annually
  - €0.10/kWh (~ \$0.12/kWh) from networks DSO and €0.09/kWh from electricity supply company
  - FiT €0.09/kWh (~ \$0.11/kWh) for exports in excess of 3000 kWh annually from electricity supply company
- Free import/export utility meter



# Recent History of Small Wind

- Emergence of numerous small wind distributors
- C&F Green Energy - manufacturing

- Economic crash (2008-2013)
- Uptake of microgeneration well below 4000 (~100s)



# Recent History of Small Wind

- Mixed results from field trials at consumer sites (Government/politicians prefer good news stories)
- Many small distributors left the industry

# Recent History of Small Wind

- December 2014, the pilot scheme was closed to new customers
- Existing customers prior February 2012 will continue to receive €0.10/kWh exported from Networks DSO up to 5 years of their contract start date (i.e. ended in 2017)
- Existing domestic customers will continue to receive €0.09/kWh until 31st December 2018 (reviewed annually)



## Small scale installations today

- Total of ~ 900 grid connected small scale machines installed
- Total installed capacity (cumulative) ~4.0 MW
- Majority < 11 kW
- Average installation rating ~ 6 kW

- C&F Green Energy
  - 11 kW to 250 kW
- Kingspan Wind
  - 2.5 kW and 6 kW

## Small scale installations today

- Total of ~ 900 grid connected small scale machines installed
- Total installed capacity (cumulative) ~4.1 MW
- Majority < 11 kW
- Average installation rating ~ 6 kW

- Drivers: (Government level)
  - National policies driven by statutory national and EU targets both in GHG emission reductions and renewable energy
  - Large onshore wind pretty much delivering for electricity targets
  - Challenges with heat and transport (so these are becoming a priority)

# The future in Ireland

- Gradual move towards decentralised, decarbonised generation and smarter grids
- Consumers may be encouraged to become “prosumers” and/or also to become stakeholders in larger wind projects
- Small wind may have a role in more complete energy systems for behind the meter users that involves solar PV and storage
- Rural agricultural sector – most likely end user of small wind
- Urban small wind unlikely to feature

- Need better knowledge of what impact small wind has had to date in places where it has been deployed
- A frequent consumer question on small wind turbines.....

*“Would it run my house? (If yes, I’ll buy it!)”*

# Ireland loves KidWind!



- ~ 3000 kids across Ireland have participated in workshops to date

# Thank you!



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