project	project no	date start	date complete	project title	project description	link
1	NIA_NGET0188	Jun-16	Jun-18	WI-POD- Wind turbine control Interaction with Power Oscillation Damping Control approaches.	identifies mechanical risk associated with electrical oscillation control- models convertor-mechanical coupling for DFIG and fully converted wind turbines.	https://www.smarternetworks.org/project/nia_nget0188
2	NIA_NGET0187	Jun-16	Jun-18	Transient Voltage Stability of Invertor Dominated Grids and options to improve stability	constructs a simplified GB scale PS-CAD model, focusses in on SE england area and makes regional and national conclusions surrounding invertor related instability risk. Identifies a voltage instability associated with amplification of PLL tracking challenge with classical voltage instability. identifies RMS models are insufficiently conservative	https://www.smarternetworks.org/project/nia_nget0187
3	Prj-916	Apr-13	unknown	Flex Net	Analysis of intermittent technologies. One workstream considers HVDC in the context of development of DC networks, multiterminal and growth of invertor technologies.	https://www.smarternetworks.org/project/prj_916
4	prj-1648	Mar-15	unknown	Protection and Control Roadmap	Adapting protection to be more flexible to higher invertor-led fault current environments	https://www.smarternetworks.org/project/prj_1648
5	Prj-635	Mar-13	unknown	Supergen-Flexnet	High-penetration conditions of intermittency, system operation (moddeling & analysis),Multi terminal HVDC systems (resarch into hardware and control methodologies), active distribution control inc. power electronic converters.	https://www.smarternetworks.org/project/prj_635
6	Prj-607	Jan-07	Jan-11	Supergen-Flexnet (as above?)	scope as above	https://www.smarternetworks.org/project/prj_607
7	Prj-2008_01	Mar-13	unknown	Supergen-Flexnet (as above?)	scope as above	https://www.smarternetworks.org/project/2008_01
8	Prj-536	Feb-13	unknown	Supergen-Flexnet (as above?)	scope as above	https://www.smarternetworks.org/project/prj_536
9	NIA_NGSO_0005	Feb-18	Nov-18	Phase Lock Loop- Related improvements to Non-synchronous Generation Models	development of GB-specific relevant generic models of the PLL informed current control design within fully converted wind turbine, solar, battery and HVDC projects. Models in Digsilent (RMS) and PSCAD (EMT) made available publically	https://www.smarternetworks.org/project/nia_ngso0005
10	NIA_SPEN_0028	Jan-17	Oct-17	Transition to low voltage DC distribution networks- Phase1	assess viability of LV DC- asset specification and network design	https://www.smarternetworks.org/project/nia_spen_0028
11	NIA_SPEN_0047	Nov-19	May-21	Transition to low voltage DC distribution networks- Phase1	construct a test specification, tender and cost benefit analysis of LVDC in distribution system application	https://www.smarternetworks.org/project/nia_spen_0047
12	NIA_WPD_043	Sep-19	Feb-22	Harmonic Mitigation	mitigate converter based harmonic current via a new control scheme input into convertors control system across distribution network	https://www.smarternetworks.org/project/nia_wpd_043
13	Prj-633	Mar-13	unknown	Smartgrid design	included the in the work programme is an LV scale power convertor and its development for bespoke LV network transmission	https://www.smarternetworks.org/project/prj_633
14	NIA_NGET0193	Sep-16	Mar-18	Project DESERT (hybrid battery and solar enhanced frequency control	implementation of fast response scheme integrated between two convertors with differing resource capabilities- associated with EFCC NIC project	https://www.smarternetworks.org/project/nia_nget0193
15	NIA_WPD_019	Aug-16	Aug-18	LV plus	R&D for new LV protections for subsequent trial	https://www.smarternetworks.org/project/nia_wpd_019
16	NIA_NGSO000003	Aug-17	Apr-18	Assessing the stability of small-scale inverter connected PV generation	stability of PV inverters across voltage dips and vector shift- informing loss of mains replacement programe (GC00079/DC00079 technical codes mod)	https://www.smarternetworks.org/project/nia_ngso0003
17	Prj_626	Mar-13	unknown	Power Networks Research Academy	work includes protection solutions for an invertor dominated grid-R&D	https://www.smarternetworks.org/project/prj_626
18	2008_03	Jan-08	Jan-08	Power Networks Research Academy	as above	https://www.smarternetworks.org/project/2008_03
19	prj_602	Mar-13	unknown	Power Networks Research Academy	as above	https://www.smarternetworks.org/project/prj_602
20	nic_2014	Dec-13	Apr-21	National HVDC centre	resource to de-risk HVDCinstallation in GB- Facility for multiple complex system simulations includinf real-time hardware in the loop and enhanced factory testing via replica of caithness morray-shetland link. 6 NIA scale research projects also sponsored to date	https://www.hvdccentre.com/
21	nic_2016	Dec-15	Apr-19	Enhanced Frequency Control Capability	delivery of stable fast response via conveter resources	https://www.nationalgrideso.com/innovation/projects/enhanced-frequency-control-capability-efcc
22	nic_2018	Dec-17	Apr-21	Phoenix	delivery of stability support via a hybrid statcom (convertor)-synch comp	https://www.spenergynetworks.co.uk/pages/phoenix.aspx