

Payment Milestones

Payment Milestone	Deliverable(s)	Date	Amount	Cumulative Spend
1	Develop QRA, Begin Logger Customer Engagement plan, Logger specification/conceptual design, Sensor specification/conceptual design, Comms Solution Specification, Cloud Solution Specification, Begin Procurement, setup data acquisition, data collection specification	30/04/16		
2	Develop QRA, Draft Logger Customer Engagement plan, Logger detailed design, Sensor conceptual design, Comms Solution conceptual design, Cloud Solution conceptual design, Procurement events, setup data acquisition, data collection specification	31/05/16		
3	QRA methodology in place, Logger Customer Engagement plan final , Logger off site testing, Sensor conceptual design, Comms Solution detailed design, Detailed design of Cloud Data Solution, Procurement event outcome Review , setup data acquisition, data collection specification, Consumer Meter logging infrastructure	30/06/16		
4	Identify sensor equipment, procure sample logging sensors, logger installation (x150), network sensor detailed design, sample network sensor procurement, Laboratory Testing of Novel Sensors , Comms offsite testing, Begin Cloud solution implementation, Data collection specification complete, Consumer Meter logging infrastructure, Maintenance plan	31/07/16		
5	Bench Testing of Comms Solution , Cloud solution implementation, Logger installation (x150), Network sensor major components procurement, Consumer Meter logging contract, Renewables Impact Study	19/08/16		
6	Detailed Design of Installations , Renewables Impact Study, Logger installation (x150). Network sensor major/minor components procurement, Cloud solution implementation, Network data collection, T/SP/G/17 & G/19 Appraisal and Approval process	16/09/16		
7	Logger installation (x150), Network sensor major/minor components procurement, Cloud solution implementation complete, Renewables Impact Study, Network data collection, Consumer/pressure data collection	31/10/16		
8	Logger installation (x150), Cloud Solution offsite testing, Renewables Impact Study, Manufacture/test network sensors, Install/Commission network sensors, Network data collection, Consumer/pressure data collection	30/11/16		
9	Logger installation (x150), Cloud Solution offsite testing, Renewables Impact Study, Manufacture/test (FAT) network sensors, Install/Commission network sensors, Network data collection, Consumer/pressure data collection, Begin documentation/snagging, Site delivery	31/12/16		
10	Logger installation, Renewables Impact Study, Manufacture/test network sensors, Install/Commission network sensors, Network data collection, Consumer/pressure data collection, Documentation/snagging, Maintain hardware, performance monitoring, Site delivery	31/01/17		
11	Logger installation (x150), Renewables Impact Study, Manufacture/test network sensors, Install/Commission network sensors, Network data collection, Consumer/pressure data collection, Documentation/snagging complete, Maintain hardware complete, performance monitoring complete, Site delivery	28/02/17		
12	Renewables Data Strategy, Integration and Testing of Sensors in Live Environment (IP/MP), Proving of Consumer Loggers and Pressure Sensors in Live Environment (LP) , Network data	31/03/17		

Payment Milestone	Deliverable(s)	Date	Amount	Cumulative Spend
	collection, Consumer/pressure data collection, Documentation/snagging, Maintain hardware, performance monitoring, Complete site deliveries, Publish work package WP01 summary			
13	Verification of Sensor/Communications Infrastructure, Verification of Consumer Meter Logging Infrastructure , Downstream Renewables Investigation and Analysis	21/04/17		
14	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables	31/05/17		
15	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Downstream Renewables review	30/06/17		
16	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach	31/07/17		
17	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Demand modelling development review	31/08/17		
18	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review data requirements/identify gaps	30/09/17		
19	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review data requirements/identify gaps, Downstream Renewables review	31/10/17		
20	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review data requirements/identify gaps	30/11/17		
21	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review data requirements/identify gaps, Demand modelling development review	31/12/17		
22	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review data requirements/identify gaps	31/01/18		
23	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Downstream Renewables Investigation and Analysis, Undertake Laboratory Testing of Renewables Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Review on Data Requirements, Identify Gaps and Implement Changes for	28/02/18		

Payment Milestone	Deliverable(s)	Date	Amount	Cumulative Spend
	Year 3 (WP02)			
24	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Investigation and Analysis of Renewables Behaviour, Undertake Laboratory Testing of Renewables , Demand modelling - Determine Socio-economic data/weather data/CV modelling approach	30/03/18		
25	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Renewables - model development and impact study, Prototype Demand model for Real Time modelling, Review on Data Requirements, Identify Gaps and Implement Changes for Year 3	30/04/18		
26	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling Feasibility, Renewables - model development and impact study, Setup SPS model	31/05/18		
27	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Renewables - model development and impact study, Setup SPS model, Review of demand modelling feasibility	30/06/18		
28	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, Setup SPS model	31/07/18		
29	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, Setup SPS model	31/08/18		
30	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, Conceptual design of Software Solution, System Testing with Pseudo-Live Data , Publish WP05 Summary	28/09/18		
31	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review complete, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, IP/MP/LP cross tier assessment of Real-time system	31/10/18		
32	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling	30/11/18		

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	approach, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, IP/MP/LP cross tier assessment of Real-time system			
33	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, IP/MP/LP cross tier assessment of Real-time system	31/12/18		
34	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Design criteria and network pressures review complete, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, IP/MP/LP cross tier assessment of Real-time system	31/01/19		
35	Network data collection, Consumer/pressure data collection, Maintain hardware, performance monitoring, Demand modelling - Determine Socio-economic data/weather data/CV modelling approach, Renewables - model development and impact study, Linking Below and Above 7 bar Demand, Storage and Forecast Modelling, IP/MP/LP cross tier assessment of Real-time system	28/02/19		
36	Demand modelling complete, Renewables - model development and impact study complete, Publish WP02/WP03/WP04/WP06 Summary, Real-time Model Demonstration, Dissemination of Project Outcomes	29/03/19		

Payment Terms and Conditions

Regular milestone payments proposed should provide steady cash flow to fund the project.

Contractual Arrangement Key Principles Summary

SGN have executed and closed over 200 project agreements since 2008, in accordance with IFI, NIA and NIC governance arrangements, and therefore have an established means of managing contractual risk in innovation projects.

The go/no go stage gate payments and payment milestones will be built into the schedule of works and incorporated into the contract between DNV GL and SGN under UK law.

Project termination provisions between SGN and DNV GL will ensure that the project will be able to be terminated as a result either of a technically infeasible solution as identified within the go/no-go stage gates or as a result of a material contractual breach, or for any reason whatsoever on 30 days' notice, subject to payment of any charges due for services completed and including payment for any shipping charges for personnel or equipment.