EWP kosten specificatie

Project: **Renkum**

version 1/9/2018

WP	Task	Sub-task	Description	Phase	Fixed/conditional	Total (Shared) costs	Share Project Renkum	Costs project Renkum	Costs project Nijmegen	Costs project Renkum (+ Nijmegen)	Share payment by consortium	Payment by consortium
						Fase 1-5 36 months						
WP 1			**Data management**			**€ 1,000,000**		**€ 142,857**	**€ 0**	**€ 142,857**		**€ 71,429**
	1.1		Digital platform									
	1.2		Data acquisition	Phase 1	conditional	€ 1,000,000	14%	€142,857		€ 142,857	50%	€71,429
WP 2			**Exploration and static model**			**€ 2,268,000**		**€ 324,000**	**€ 0**	**€ 324,000**		**€ 162,000**
	2.1		Distribution of Dinantian Carbonates									
		2.1.1	Seismic interpretation	Phase 1	fixed	€ 480,000	14%	€68,571		€ 68,571	50%	€ 34,286
		2.1.2	Time-depth conversion	Phase 1	fixed							
		2.1.3	Analysis of burial and structuration	Phase 1	fixed	€ 288,000	14%	€41,143		€ 41,143	50%	€20,571
		2.1.4	Gravity and magnetics	Phase 1	fixed	€ 216,000	14%	€30,857		€ 30,857	50%	€15,429
		2.1.5	Facies and reservoir quality distribution	Phase 1	fixed	€ 384,000	14%	€54,857		€ 54,857	50%	€27,429
	2.2		Static reservoir quality									
		2.2.1	Fracture characterization	Phase 1	fixed	€ 180,000	14%	€25,714		€ 25,714	50%	€12,857
		2.2.2	Diagenesis	Phase 1	fixed	€ 216,000	14%	€30,857		€ 30,857	50%	€15,429
		2.2.3	Petrophysical evaluation of existing log da	Phase 1	fixed	€ 216,000	14%	€30,857		€ 30,857	50%	€15,429
	2.3		Temperature model	Phase 1	fixed	€ 108,000	14%	€15,429		€ 15,429	50%	€7,714
	2.4		Stess field	Phase 1	fixed	€ 180,000	14%	€25,714		€ 25,714	50%	€12,857
WP 3			**Dynamic modelling**			**€ 816,000**		**€ 116,571**	**€ 0**	**€ 116,571**		**€ 58,286**
	3.1		Seismicity	Phase 1	fixed	€ 384,000	14%	€54,857		€ 54,857	50%	€27,429
	3.2		Productvity and injection									
		3.2.1	Learning from analogues and outcrops	Phase 1	fixed	€ 144,000	14%	€20,571		€ 20,571	50%	€10,286
		3.2.2	(chemical) effects off drilling, completion,	Phase 1	fixed	€ 144,000	14%	€20,571		€ 20,571	50%	€10,286
		3.2.3	Effects of fractures	Phase 1	fixed	€ 144,000	14%	€20,571		€ 20,571	50%	€10,286
WP 4			**Conceptual designs**			**€ 342,000**		**€ 48,857**	**€ 0**	**€ 48,857**		**€ 24,429**
	4.1		Technical risk inventory	Phase 1	fixed	€ 72,000	14%	€10,286		€ 10,286	50%	€5,143
	4.2		Conceptual well design	Phase 1	fixed	€ 180,000	14%	€25,714		€ 25,714	50%	€12,857
	4.3		Stimulation concepts	Phase 1	fixed	€ 90,000	14%	€12,857		€ 12,857	50%	€6,429
WP 5			**Seismic acquisition and (re-)processing**			**€ 8,028,000**		**€ 5,155,500**	**€ 705,000**	**€ 5,860,500**		**€ 2,930,250**
	5.1		Feasibility reprocessing diepe NAM 2D L2NAM84N - lijnnummer 10001 lijn (BOZ Hilversum - Zeewolde) en L2DGP1986B - lijnnummer 8601 (Brabant - Groningen)	Phase 1	fixed	€ 18,000	14%	€2,571		€ 2,571	50%	€1,286
	5.1		Reprocessing diepe NAM 2D L2NAM84N lijnnummer 10001 lijn (BOZ - Hilversum - Zeewolde), Reprocessing L2DGP1986B - lijnnummer 8601 (Brabant - Groningen)	Phase 1	fixed	€ 360,000	14%	€51,429		€ 51,429	50%	€25,714
	5.1	5.10.1	Acquisition of 5 2D lines as proposed by project Renkum	Phase 1	fixed	€ 1,290,000	100%	€1,290,000		€ 1,290,000	50%	€645,000
	5.1	5.10.1	Acquisition of 3 2D lines project Nijmegen	Phase 1	fixed	€ 705,000	100%		€705,000	€ 705,000	50%	€352,500
	5.3	5.3.2	Acquisition of 2D line extension of local GOUD line towards South	Phase 1	fixed	€ 375,000	50%	€187,500		€ 187,500	50%	€93,750
	5.3	5.3.2	Acquisition of 2D line extension of local Renkum line towards West	Phase 1	fixed	€ 375,000	50%	€187,500		€ 187,500	50%	€93,750
	5.3	5.3.3	Acquisition of 2D line - connectie MOL-CAL met voldoende extensie in Belgie en Limburg	Phase 1	fixed	€ 720,000	20%	€144,000		€ 144,000	50%	€72,000
	5.3	5.3.4	Acquisition of 2D line - connection Loenhout - Veghel	Phase 2	fixed	€ 1,035,000	50%	€517,500		€ 517,500	50%	€258,750
	5.3	5.3.4	Acquisition of 2D line - connection Brabant - Duitsland ("Nijmegen-Zuid")	Phase 2	fixed	€ 750,000	50%	€375,000		€ 375,000	50%	€187,500
	5.1	5.10.2	Acquisition 3D seismic, ca. 20 km2 - area and acquisition parameters to be defined based on the results of phase 1 (feasibility), H1 2019 (unspecified)	Phase 3	conditional	€ 2,400,000	100%	€2,400,000		€ 2,400,000	50%	€1,200,000
WP 7			**Region middle**			**€ 177,600**		**€ 59,200**	**€ 0**	**€ 59,200**		**€ 29,600**
	7.1		Regional interpretation	Phase 2	conditional	€ 48,000	33%	€16,000		€ 16,000	50%	€8,000
	7.2		Validation using grav/mag data	Phase 2	conditional	€ 48,000	33%	€16,000		€ 16,000	50%	€8,000
	7.3		Regional conceptual model	Phase 2	conditional	€ 72,000	33%	€24,000		€ 24,000	50%	€12,000
	7.4		Regional stress analysis	Phase 2	conditional	€ 9,600	33%	€3,200		€ 3,200	50%	€1,600
WP 9			**Local activities**			**€ 624,000**		**€ 624,000**	**€ 0**	**€ 624,000**		**€ 312,000**
	9.6		Renkum									
		9.6.1	Local risk assessment	Phase 3	conditional	€ 48,000	100%	€48,000		€ 48,000	50%	€24,000
		9.6.2	CSEM	Phase 3	conditional	€ 288,000	100%	€288,000		€ 288,000	50%	€144,000
		9.6.3	Local interpretation	Phase 3	conditional							
		9.6.4	Local temperature model	Phase 3	conditional	€ 96,000	100%	€ 96,000		€ 96,000	50%	€ 48,000
		9.6.5	Local static model	Phase 3	conditional							
		9.6.6	Local geomechanical model	Phase 3	conditional	€ 24,000	100%	€24,000		€ 24,000	50%	€12,000
		9.6.7	Local reservoir model	Phase 4	conditional	€ 96,000	100%	€96,000		€ 96,000	50%	€48,000
		9.6.8	Local stimulation concept	Phase 5	conditional	€ 72,000	100%	€ 72,000		€ 72,000	50%	€ 36,000
		9.6.9	Local conceptual well design		conditional							
Subtotal								**€ 6,470,986**	**€ 705,000**	**€ 7,175,986**		**€ 3,587,993**
Contingent		**0%**	*20% (excl. WP1)*					€ 0	€ 0	€ 0		€ 0
Total Exploration Work Program incl. Contingency								**€ 6,470,986**	**€ 705,000**	**€ 7,175,986**		**€ 3,587,993**

WP	Task	Sub-task	Description	Phase	Fixed/conditional	Total (Shared) costs	Share Project Renkum	Costs project Renkum	Costs project Nijmegen	Costs project Renkum (+ Nijmegen)	Share payment by consortium	Payment by consortium
WP 10			**Permitting and licensing**					**€ 136,000**	**€ 16,000**	**€ 152,000**		
	10.1		Application exploration license	Phase 1	fixed			€16,000	€16,000	€ 32,000		
	10.2		Permitting and landaccess 2D seismic (opgenomen onder WP5)	Phase 1	fixed			€0	€0	€ 0		
	10.3		Permitting and landaccess 3D seismic (opgenomen onder WP5)	Phase 3	conditional			€0	€0	€ 0		
	10.4		Preparation enviornmental assessment study (Mileu Effecten Rapportage MER)	Phase 3	conditional			€40,000	€0	€ 40,000		
	10.5		Preparation and application licenses (omgevingsvergunning) and execution substudies	Phase 3	conditional			€70,000	€0	€ 70,000		
	10.7		Application permit drilling/ announcement BARMM	Phase 3	conditional			€10,000	€0	€ 10,000		
WP 11			**Project Management**					**€ 360,000**	**€ 360,000**	**€ 720,000**		
	13.1		Integral Project Management, developmer	Phase 1	fixed			€180,000	€180,000	€ 360,000		
	13.2		Integral Project Management, developmer	Phase 2	conditional			€60,000	€60,000	€ 120,000		
	13.3		Integral Project Management, developmer	Phase 3-5	conditional			€120,000	€120,000	€ 240,000		
WP 12			**Business Case, Financing and Subsidies**					**€ 0**	**€ 0**	**€ 0**		
	11.1							€0	€0	€ 0		
	11.2							€0	€0	€ 0		
	11.3							€0	€0	€ 0		
	11.4							€0	€0	€ 0		
WP 13			**Surface installations, systemintegration and optimalisation**					**€ 0**	**€ 0**	**€ 0**		
	12.1							€0	€0	€ 0		
	12.2							€0	€0	€ 0		
	12.3							€0	€0	€ 0		
	11.4							€0	€0	€ 0		
Total								**€ 6,966,986**	**€ 1,081,000**	**€ 8,047,986**		

FUNDING

	Fase 1-5		
Funding EBN (50% of EWP incl. Contingen	€3,235,493	€352,500	€3,587,993
Funding Tellus Renkum BV*	€233,000	€0	€233,000
Funding Tellus Nijmegen BV	€0	€300,000	€300,000
Funding Gemeente Nijmegen	€0	€75,000	€75,000
Funding RadboudUMC	€0	€50,000	€50,000
Funding Province Gelderland	€1,476,893	€303,500	€1,780,393
Funding Gap	€2,021,600	€0	€2,021,600
Total	**€ 6,966,986**	**€ 1,081,000**	**€ 8,047,986**

* NB. De funding door aandeelhouders is totaal EUR 353k waarvan EUR 233k gedurende de subsidie periode. EUR 120k is in relatie tot investering/voorbereidende kosten (2017).

Costs untill the first go/no-go moment

for specifications, see above

WP	Description	Cost consortium
WP 1	Data management (conditional)	€ 71,429
WP 2	Exploration and static model	€ 162,000
WP 3	Dynamic modelling	€ 58,286
WP 4	Conceptual designs	€ 24,429
WP 5 (expected)	Seismic acquisition and (re-)processin	€ 446,250
WP 5 (expected)	Seismic acquisition and (re-)processin	€ 1,284,000
Contingent * (20%)		€ 0
Total		**€ 2,046,393**
Conditional (incl. contingent)		€ 517,679
Conditional Contingent * (20%)		€0
Total excl. conditional		**€ 1,528,714**

GO NO GO Momenten

Fase 1 18 months	1	1	Fase 2 6 months	2	2	Fase 3 6 months	3	3	Fase 4 3 months	4	4	Fase 5 3 months	5	5
Reprocessing /new seismic + shared national program	Share payment by consortium	Payment by consortium	Regional Exploration works	Share payment by consortium	Payment by consortium	Local statistic geological model (+3D seismic, CESM)	Share payment by consortium	Payment by consortium	Local dynamic model	Share payment by consortium	Payment by consortium	Local conceptual well design	Share payment by consortium	Payment by consortium
€ 142,857		€ 71,429	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
€ 142,857	50%	€71,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 324,000		€ 162,000	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
€ 68,571	50%	€ 34,286		50%	€ 0		50%	€ 0		50%	€ 0		50%	€ 0
€ 41,143	50%	€20,571		50%	€0		50%	€0		50%	€0		50%	€0
€ 30,857	50%	€15,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 54,857	50%	€27,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 25,714	50%	€12,857		50%	€0		50%	€0		50%	€0		50%	€0
€ 30,857	50%	€15,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 30,857	50%	€15,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 15,429	50%	€7,714		50%	€0		50%	€0		50%	€0		50%	€0
€ 25,714	50%	€12,857		50%	€0		50%	€0		50%	€0		50%	€0
€ 116,571		€ 58,286	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
€ 54,857	50%	€27,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 20,571	50%	€10,286		50%	€0		50%	€0		50%	€0		50%	€0
€ 20,571	50%	€10,286		50%	€0		50%	€0		50%	€0		50%	€0
€ 20,571	50%	€10,286		50%	€0		50%	€0		50%	€0		50%	€0
€ 48,857		€ 24,429	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
€ 10,286	50%	€5,143		50%	€0		50%	€0		50%	€0		50%	€0
€ 25,714	50%	€12,857		50%	€0		50%	€0		50%	€0		50%	€0
€ 12,857	50%	€6,429		50%	€0		50%	€0		50%	€0		50%	€0
€ 3,460,500		€ 1,730,250	€ 0		€ 0	€ 2,400,000		€ 1,200,000	€ 0		€ 0	€ 0		€ 0
€ 2,575	50%	€1,286		50%	€0		50%	€0		50%	€0		50%	€0
€ 51,429	50%	€25,714		50%	€0		50%	€0		50%	€0		50%	€0
€ 1,290,000	50%	€645,000		50%	€0		50%	€0		50%	€0		50%	€0
€ 705,000	50%	€352,500		50%	€0		50%	€0		50%	€0		50%	€0
€ 187,500	50%	€93,750		50%	€0		50%	€0		50%	€0		50%	€0
€ 187,500	50%	€93,750		50%	€0		50%	€0		50%	€0		50%	€0
€ 144,000	50%	€72,000		50%	€0		50%	€0		50%	€0		50%	€0
€ 517,500	50%	€258,750		50%	€0		50%	€0		50%	€0		50%	€0
€ 375,000	50%	€187,500		50%	€0		50%	€0		50%	€0		50%	€0
	50%	€0		50%	€0	€ 2,400,000	50%	€1,200,000		50%	€0		50%	€0
		€ 0	€ 59,200		€ 29,600	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
	50%	€0	€ 16,000	50%	€8,000		50%	€0		50%	€0		50%	€0
	50%	€0	€ 16,000	50%	€8,000		50%	€0		50%	€0		50%	€0
	50%	€0	€ 24,000	50%	€12,000		50%	€0		50%	€0		50%	€0
	50%	€0	€ 3,200	50%	€1,600		50%	€0		50%	€0		50%	€0
		€ 0	€ 0		€ 0	€ 456,000		€ 228,000	€ 96,000		€ 48,000	€ 72,000		€ 36,000
	50%			50%			50%			50%			50%	
	50%	€0		50%	€0	€ 48,000	50%	€24,000		50%	€0		50%	€0
	50%	€0		50%	€0	€ 288,000	50%	€144,000		50%	€0		50%	€0
	50%	€ 0		50%	€ 0	€ 96,000	50%	€ 48,000		50%	€ 0		50%	€ 0
	50%	€0		50%	€0	€ 24,000	50%	€12,000		50%	€0		50%	€0
	50%	€0		50%	€0		50%	€0	€ 96,000	50%	€48,000		50%	€0
	50%	€ 0		50%	€ 0		50%	€ 0		50%	€ 0	€ 72,000	50%	€ 36,000
€ 4,092,786		€ 2,046,393	€ 59,200		€ 29,600	€ 2,856,000		€ 1,428,0	€ 96,000		€ 48,000	€ 72,000		€ 36,000
€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0	€ 0		€ 0
€ 4,092,786		€ 2,046,393	€ 59,200		€ 29,60	€ 2,856,000		€ 1,428	€ 96,000		€ 48,00	€ 72,000		€ 36,000

Fase 1		Fase 2	2	2	Fase 3	3	3	Fase 4	4	4	Fase 5
€2,046,393		€29,600			€1,428,000			€48,000			€36,000
€233,000		€0			€0			€0			€0
€300,000		€0			€0			€0			€0
€75,000		€0			€0			€0			€0
€50,000		€0			€0			€0			€0
€1,780,393		€0			€0			€0			€0
€0		€149,600			€1,788,000			€48,000			€36,000
€ 4,484,786		**€ 179,200**			**€ 3,216,000**			**€ 96,000**			**€ 72,000**