

CACM Cost Report of 2018



CACM Cost Report of 2018

prepared by all NEMOs and all TSOs according
to Article 80 of COMMISSION REGULATION (EU)
2015/1222 of 24 July 2015
establishing a guideline on capacity allocation
and congestion management

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Chapter A:

Common costs resulting from coordinated activities of all NEMOs and all TSOs or all NEMOs only or all TSOs only participating in the single day-ahead and single intraday coupling

Following table provides overview of total actual common costs in 2018:

		Costs of establishing and amending		Costs of operating	
SDAC common costs	All NEMOs and all TSOs costs	1.1	902 256.51 €	1.2	0.00 €
	All NEMOs costs	1.3	1 313 899.05 €	1.4	0.00 €
	All TSOs costs	1.5	21 770.00 €	1.6	0.00 €
SIDC common cost	All NEMOs and all TSOs costs	2.1	4 853 794.13 €	2.2	958 630.07 €
	All NEMOs costs	2.3	678 843.61 €	2.4	70 735.22 €
	All TSOs costs	2.5	767 549.29 €	2.6	200 149.89 €

Following table provides overview of forecast of common costs for 2019:

		Costs of establishing and amending		Costs of operating	
Day ahead related common costs	All NEMOs and all TSOs costs	3.1	2 481 031.00 €	3.2	217 400.00 €
	All NEMOs costs	3.3	1 444 053.94 €	3.4	615 039.06 €
	All TSOs costs	3.5	18 000.00 €	3.6	0.00 €
Intraday related common cost	All NEMOs and all TSOs costs	4.1	4 897 672.46 €	4.2	2 054 526.50 €
	All NEMOs costs	4.3	773 386.00 €	4.4	658 000.00 €
	All TSOs costs	4.5	662 049.00 €	4.6	426 949.00 €

1 Actual SDAC costs of 2018

1.1 The joint all TSOs and all NEMOs costs of establishing and amending the SDAC consists of:

- **Costs related to design and implementation of Multi NEMO Arrangements in the amount of 597 809.51 €**
- **Costs related to establishment of SDAC in the amount of 304 447.00 € as further detailed below.**

2018 was the year of preparation for a new era of the SDAC costs along with the implementation of the following SDAC Agreements, according to the requirements of the CACM regulation:

- The Single Day-Ahead Coupling Operations Agreement (DAOA) for the Joint NEMOs and TSOs costs
- The TSOs Cooperation's Agreement for Single Day-Ahead Coupling (TCDA) for the TSOs only costs
- The All NEMO Day-Ahead Operational Agreement (ANDOA) for the NEMOs only costs, with the entry into force on the 28th March 2019.

The significant events of the SDAC in 2018 were the following:

- The PMO for Implementation Coordination Group costs have been added to the SDAC costs, since April 2018. This coordination includes among others the coordination of regional MNA projects and the global testing and the coordination of the impact assessment on the procedures. The SDAC JSC confirmed the need of the ICG in the SDAC JSC meeting minutes of 12th December 2017.
- SL-HR interconnector Go-Live with first delivery date 20th June 2018, with HOPS becoming an Operational MRC Party.
- SEMOpx/SZEM-GB Project Go-Live, with first delivery date on the 1st October 2018, with Eirgrid and SONI, becoming Operational MRC Parties.
- AT-DE Bidding zone split Go-Live with first delivery date on the 1st October 2018

The Budget Management Task Force group, during 2018, was responsible of preparing the budgeting, cost monitoring and reporting of the SDAC costs, reviewing of the CACM calculations and of the resettlement of the SDAC costs.

For the resettlement of the SDAC/MRC costs and for the period 14th February 2017 until 31st March 2019, all the signatory Parties of the DAOA and the TCDA, along with the MRC Parties, participated in the calculations, which will be approved by the JSC during the SDAC JSC meeting in June 2019.

Respective costs attributable to all NEMOs and all TSOs for establishment and amendment of SDAC for design and implementation of Multi NEMO Arrangements functionalities in MCO Function System and the Algorithm in 2018 in total of 597 809.51 €

Category	Costs of 2018
General Support	111 353.75 €
Euphemia Releases	201 306.25 €
Investment / maintenance	50 058.69 €
Leader Remuneration	24 628.13 €
PMB Releases	151 262.69 €
Support Tasks	59 200.00 €
Total SUM	597 809.51 €

- › Rate of 925 €/MD was used for internal resources of NEMOs
- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › Due to the urgency of the task the resources available in PCR project were used in order to deliver respective outcomes related to Multi-NEMO functionalities including the external support related to project management services provided by SIA Partners Belgium.

- › General Support represents activities done by representatives from multiple PCR task forces/work group in order to deliver design of Multi NEMO Arrangements incorporation into MCO Function.
- › Euphemia Releases refers to costs of new release of SDAC Algorithm which supports the Multi NEMO Arrangements.
- › Leader Remuneration refers to remuneration of several leaders of PCR working groups in order to deliver design of Multi NEMO Arrangements incorporation into MCO Function.
- › PMB releases refers to the costs of a new release of MCO function system which supports the Multi NEMO Arrangements.
- › Support Tasks refers to tasks performed by the PMO.

The detail disaggregation of the costs is available in relevant Database file.

Costs related to establishment of SDAC in the amount of 304 447.00 €

Related Task Force	Total costs of 2018
MRC Algorithm TF Coordination	8 788.00 €
Project Place MRC Users Common Costs	1 447.00 €
Legal Support DAOA	117 420.00 €
PMO Technical Support	143 003.00 €
Simulation Facility tool - MNA Scope	22 707.00 €
Simulation Facility tool - Contingency for CR	11 082.00 €
Total SUM	304 447.00 €

- › The external support for the Joint SDAC/MRC costs was assigned by the JSC group, for the preparation and the signature process of the DAOA Agreement.
- › The BMTF is responsible for budgeting, validating and reviewing of costs associated with the Joint Steering Committee, who provides the final cost approval.
- › The cost sharing methodology for the 2018 Joint Actual costs, is based on the regional MRC sharing (between MRC NEMOs and TSOs), according to the NWE Day-Ahead Operations Agreement. Resettlement shall take place in 2019 to apply CACM shares from 14th February 2017 to 31st December 2018 costs.
- › Legal Support DAOA, has been introduced in 2018, due to the preparations for the DAOA Agreement. PMO Technical support (including ICG costs) and SF tool costs has been added to the Joint establishment costs.

The following sharing key was used for sharing of all TSOs and NEMOs costs of establishing and amending the SDAC in 2018

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	TSO/NEMO	MS share to be used for sharing of SDAC costs in 2018	Share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
Austria		0	APG		50.00%	1.120%
Austria		23 474	EPEX		37.92%	0.849%
Austria		2 793	EXAA		6.44%	0.144%
Austria		0	EMCO		5.64%	0.126%
Austria	61 852	26 267		2.239%	100.00%	2.239%
Belgium		0	ELIA		50.00%	1.226%
Belgium		13 386	EPEX		45.00%	1.104%
Belgium		0	EMCO		5.00%	0.123%
Belgium	81 725	13 386		2.453%	100.00%	2.453%
Bulgaria		0	ESO		50.00%	0.580%
Bulgaria		4 233	IBEX		50.00%	0.580%
Bulgaria	28 939	4 233		1.159%	100.00%	1.159%
Croatia		0	HOPS		50.00%	0.398%
Croatia		139	Cropex		50.00%	0.398%
Croatia	15 300	139		0.796%	100.00%	0.796%
Czech Republic		0	CEPS		50.00%	1.017%
Czech Republic		19 010	OTE		50.00%	1.017%
Czech Republic	57 997	19 010		2.034%	100.00%	2.034%
Denmark		0	ELSO		50.00%	0.781%
Denmark		25 447	EMCO		41.67%	0.651%
Denmark		0	EPEX		8.33%	0.130%
Denmark	31 152	25 447		1.562%	100.00%	1.562%
Estonia		0	Elering		50.00%	0.382%
Estonia		8 767	EMCO		41.67%	0.318%
Estonia		0	EPEX		8.33%	0.064%
Estonia	7 139	8 767		0.764%	100.00%	0.764%
Finland		0	Fingrid		50.00%	1.541%
Finland		52 249	EMCO		41.67%	1.285%
Finland		0	EPEX		8.33%	0.257%
Finland	80 759	52 249		3.083%	100.00%	3.083%

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	TSO/NEMO	MS share to be used for sharing of SDAC costs in 2018	Share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
France		0	RTE		50.00%	5.712%
France		85 697	EPEX		25.00%	2.856%
France		0	EMCO		25.00%	2.856%
France	440 971	85 697		11.424%	100.00%	11.424%
Germany		0	50Hertz		21.96%	3.278%
Germany		0	Amprion		32.07%	4.788%
Germany		0	TenneT DE		28.44%	4.246%
Germany		0	Transnet		17.53%	2.617%
Germany		196 356	EPEX		0.00%	0.000%
Germany		0	EMCO		0.00%	0.000%
Germany		0	EXAA		0.00%	0.000%
Germany	517 377	196 356		14.929%	100.00%	14.929%
Greece		0	ADMIE		50.00%	1.265%
Greece		54 446	Henex		50.00%	1.265%
Greece	53 463	54 446		2.530%	100.00%	2.530%
Hungary		0	Mavir		50.00%	0.793%
Hungary		18 579	HUPX		50.00%	0.793%
Hungary	37 541	18 579		1.585%	100.00%	1.585%
Ireland		0	EirGrid (TSO)		50.00%	0.703%
Ireland		22 600	EirGrid (NEMO)		50.00%	0.703%
Ireland		0	EMCO		0.00%	0.000%
Ireland	26 099	22 600		1.405%	100.00%	1.405%
Italy		0	Terna		50.00%	5.088%
Italy		210 918	GME		50.00%	5.088%
Italy	286 027	210 918		10.175%	100.00%	10.175%
Latvia		0	AST		50.00%	0.362%
Latvia		7 191	EMCO		41.67%	0.301%
Latvia		0	EPEX		8.33%	0.060%
Latvia	6 482	7 191		0.723%	100.00%	0.723%

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	TSO/NEMO	MS share to be used for sharing of SDAC costs in 2018	Share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
Lithuania		0	Litgrid		50.00%	0.410%
Lithuania		8 799	EMCO		41.67%	0.342%
Lithuania		0	EPEX		8.33%	0.068%
Lithuania	9 750	8 799		0.821%	100.00%	0.821%
Luxembourg		0	CREOS		100.00%	0.601%
Luxembourg		0	EPEX		0.00%	0.000%
Luxembourg		0	EMCO		0.00%	0.000%
Luxembourg	6 372	0		0.601%	100.00%	0.601%
Netherlands		0	TenneT BV		50.00%	1.606%
Netherlands		28 232	EPEX		50.00%	1.606%
Netherlands		0	EMCO		0.00%	0.000%
Netherlands	105 332	28 232		3.211%	100.00%	3.211%
Poland		0	PSE		50.00%	1.700%
Poland		4 048	TGE		38.89%	1.322%
Poland		0	EPEX		5.56%	0.189%
Poland		0	EMCO		5.56%	0.189%
Poland	132 839	4 048		3.400%	100.00%	3.400%
Portugal		0	REN		50.00%	1.168%
Portugal		52 007	OMIE		50.00%	1.168%
Portugal	46 353	52 007		2.336%	100.00%	2.336%
Romania		0	Trans-electrica		50.00%	0.897%
Romania		23 299	OPCOM		50.00%	0.897%
Romania	43 569	23 299		1.794%	100.00%	1.794%
Slovakia		0	SEPS		50.00%	0.555%
Slovakia		6 391	OKTE		50.00%	0.555%
Slovakia	24 987	6 391		1.110%	100.00%	1.110%
Slovenia		0	ELES		50.00%	0.429%
Slovenia		6 816	BSP		50.00%	0.429%
Slovenia	13 026	6 816		0.859%	100.00%	0.859%

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	TSO/NEMO	MS share to be used for sharing of SDAC costs in 2018	Share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
Spain		0	REE		50.00%	4.294%
Spain		184 377	OMIE		50.00%	4.294%
Spain	233 172	184 377		8.589%	100.00%	8.589%
Sweden		0	Affärs- verket svenska kraftnät		50.00%	2.805%
Sweden		142 873	EMCO		41.67%	2.338%
Sweden		0	EPEX		8.33%	0.468%
Sweden	127 496	142 873		5.611%	100.00%	5.611%
UK (including Northern Ireland whose consumption is 9 TWh)		0	National Grid		16.17%	1.549%
UK (including Northern Ireland whose consumption is 9 TWh)		0	Britned		16.17%	1.549%
UK (including Northern Ireland whose consumption is 9 TWh)		0	Nemo Link		16.17%	1.549%
UK (including Northern Ireland whose consumption is 9 TWh)		42 822	EPEX		24.26%	2.324%
UK (including Northern Ireland whose consumption is 9 TWh)		101 806	EMCO		24.26%	2.324%
UK (including Northern Ireland whose consumption is 9 TWh)		0	SONI (TSO)		2.96%	0.284%
UK (including Northern Ireland whose consumption is 9 TWh)		7 600	SONI (NEMO)		0.00%	0.000%
UK (including Northern Ireland whose consumption is 9 TWh)	303 902	152 228		9.578%	100.00%	9.578%
Norway		0	Statnett		50.00%	2.615%
Norway		0	EPEX		0.00%	0.000%
Norway		137 895	EMCO		50.00%	2.615%
Norway	113 709	137 895		5.229%	100.00%	5.229%

1.2 There were no costs categorized as joint NEMOs and TSOs costs of operating the SDAC in 2018 due to the fact that SDAC was not yet considered operational during 2018.

1.3 The all NEMOs costs of establishing and amending the SDAC in 2018 consists of:

- **Interim NEMO Committee costs in the amount of 156 600.50 €**
- **NEMOs only costs of establishing and amending the SDAC algorithm and DA MCO Function System in the amount of 1 157 298.56 € as further detailed below.**

50 % of all costs encountered by Interim NEMO Committee in its tasks of preparation of CACM methodologies and proposals in 2018 in total of 156 600.50 €

Related Task Force	Total costs of 2018
NEMO Committee	187 695.85 €
Technical TF	46 937.97 €
Back-up Methodology TF	10 030.47 €
Cost TF	34 225.00 €
Legal TF	26 102.34 €
Reporting and Comm TF	6 012.50 €
Procurement TF	2 196.88 €
Total SUM	313 201.01 €

In 2018 the NEMO committee was already working based on the approved MCO Plan and approved methodologies. However, several key challenges were faced within 2018. Mainly the discussion on final form of all NEMOs cooperation continued and later on was translated into draft of all NEMO Cooperation Agreement, which should replace the interim NEMO cooperation established within Interim NEMO Cooperation Agreement.

NEMOs were also discussing together with TSOs the joint governance for both SIDC and SDAC within framework of CACM Regulation.

In relation to Algorithm Methodology, NEMOs in cooperation with TSOs have started drafting of Algorithm Monitoring Methodology in accordance with Article 82 of CACM Regulation and Algorithm Change Control Pro-

cedure, which strives to accommodate future change requests for the price coupling algorithm and continuous matching algorithm

In 2018 the NEMO Committee and COST TF established together with TSOs, ENTSO-E and NRAs the process and format for the CACM Cost Report according to Article 80 the CACM Regulation.

- › Rate of 925 €/MD was used for internal resources of NEMOs
- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › NEMO Committee costs consists of costs of the Chairman of Interim NEMO Committee and costs of external support (costs of project management services provided by SIA Partners Belgium and Indra Czech Republic s.r.o.).
- › The external support for PMO services as of May 2018 was selected based on a competitive tender finalized at the beginning of 2018. The PMO services prior to May 2018 were provided based on direct assignment due to urgency and ongoing tendering process.
- › Technical TF was established as a merge of 3 TFs operating in 2017, namely Algorithm and product TF, DA Algorithm TF and ID Algorithm TF in order to deal with all technical methodologies in a centralized approach under the CACM Regulation.
- › Back-up Methodology TF is responsible for delivery of Back-up Methodology according to CACM Regulation.
- › COST TF is responsible for budgeting, validating and reviewing of costs associated with Interim NEMO Committee and preparation of Cost Report according to CACM Regulation.
- › Legal TF is responsible for delivering the contractual framework in accordance with MCO Plan – especially the All NEMO Cooperation Agreement.
- › MCO Plan TF and Min-max price methodology TF were no longer needed in 2018.
- › Procurement TF is responsible for performing of necessary procurements processes.
- › Reporting and Communication TF was established in 2018 in order to define the reporting methodologies and improve the communication channel of NEMOs.

The detail disaggregation of the costs is available in relevant Database file.

Respective costs attributable to all NEMOs for establishment and amendment of SDAC algorithm and DA MCO Function System in total of 1 157 298.55 €

Category	Total costs of 2018
Administrative (ADMIN)	168 651.42 €
Algorithm WG (ALWG)	706 627.72 €
Communication WG (COWG)	3 095.98 €
Governance WG (GOWG)	49 950.00 €
Operational Committee (OPSCOM)	9 712.50 €
Procedural WG (PWG)	49 117.50 €
System design WG (SDWG)	136 577.34 €
Testing WG (TWG)	18 910.47 €
Exceptional Contingency	14 655.63 €
Total SUM	1 157 298.55 €

- › Rate of 925 €/MD was used for internal resources of NEMOs
- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › Due to the fact, that exact cost categorization was not established or approved in 2017, NEMOs have jointly agreed the percentage rate for each cost item category, based on which such item was included in the NEMOs only common cost of establishing and amending the SDAC category. (The remaining part was considered either operational costs of pre-existing solution or costs of subset of NEMOs).
- › Administrative (ADMIN) costs consists of costs of the of external support related to project management services provided by SIA Partners Belgium and costs of document management system provided by Project place International AB).
- › The external support for PMO services was selected based on a competitive tender prior to CACM entry into force.

- › Algorithm WG (ALWG) is responsible for scoping, delivery and testing of the new releases of the Algorithm. This category includes costs associated with the work performed by external service provider in charge of development and maintenance of the Algorithm- N-SIDE SA
- › External service provider in charge of development and maintenance of the Algorithm- N-SIDE SA was selected based on competitive tender prior to CACM entry into force.
- › Communication WG (COWG) is responsible for public documentation and press release activities.
- › Governance WG (GOWG) is responsible for delivering the contractual framework of NEMOs within SDAC – especially the All NEMO Day-ahead Cooperation Agreement.
- › Operational Committee (OPSCOM) is responsible for evaluation of change requests proposed by the parties.
- › Procedural WG (PWG) is responsible for drafting, improvement and testing of NEMOs procedures for SDAC – the coupling part.
- › System design WG (SDWG) is responsible for scoping, delivery and testing of the new releases of other parts of the MCO Function System than Algorithm. This category includes costs associated with the work performed by external service provider in charge of development and maintenance of the Price Matcher and Broker (PMB) – Unicorn Systems a.s.
- › External service provider in charge of development and maintenance of the Price Matcher and Broker (PMB) – Unicorn Systems a.s. was selected based on competitive tender prior to CACM entry into force.
- › Testing WG (TWG) is responsible for testing of other parts of the MCO Function System than Algorithm.
- › Exceptional Contingency was used in order to start with preparation of change control procedure in accordance with CACM methodologies.

The detail disaggregation of the costs is available in relevant Database file.

The following sharing key was used for sharing of all NEMOs costs of establishing and amending the SDAC in 2018:

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	MS share to be used for sharing of SDAC costs in 2018	NEMO	NEMO share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
Austria	61 852	23 474 2 793 0	2.2383 %	EPEX EXAA EMCO	75.8400 % 12.8800 % 11.2800 %	1.6975 % 0.2883 % 0.2525 %
Belgium	81 725	13 386 0	2.4522 %	EPEX EMCO	90.0000 % 10.0000 %	2.2070 % 0.2452 %
Bulgaria	28 939	4 233	1.1589 %	IBEX	100.0000 %	1.1589 %
Croatia	15 300	139	0.7958 %	CROPEX	100.0000 %	0.7958 %
Czech Republic	57 997	19 010	2.0337 %	OTE	100.0000 %	2.0337 %
Denmark	31 152	25 447 0	1.5614 %	EMCO EPEX	83.3300 % 16.6700 %	1.3012 % 0.2603 %
Estonia	7 139	8 767 0	0.7638 %	EMCO EPEX	83.3300 % 16.6700 %	0.6365 % 0.1273 %
Finland	80 759	52 249 0	3.0812 %	EMCO EPEX	83.3300 % 16.6700 %	2.5676 % 0.5136 %
France	440 971	85 697 0	11.4217 %	EPEX EMCO	50.0000 % 50.0000 %	5.7108 % 5.7108 %
Germany	517 377	196 356 0 0	14.9228 %	EPEX EMCO EXAA	50.0000 % 50.0000 % 0.0000 %	7.4614 % 7.4614 % 0.0000 %
Greece	53 463	54 446	2.5284 %	HENEX	100.0000 %	2.5284 %
Hungary	37 541	18 579	1.5846 %	HUPX	100.0000 %	1.5846 %
Ireland	26 099	22 600	1.4047 %	EirGRID	100.0000 %	1.4047 %
Italy	286 027	210 918	10.1688 %	GME	100.0000 %	10.1688 %
Latvia	6 482	7 191 0	0.7232 %	EMCO EPEX	83.3300 % 16.6700 %	0.6027 % 0.1206 %
Lithuania	9 750	8 799 0	0.8207 %	EMCO EPEX	83.3300 % 16.6700 %	0.6839 % 0.1368 %
Luxembourg	6 372	0 0	0.6006 %	EPEX EMCO	50.0000 % 50.0000 %	0.3003 % 0.3003 %
Netherlands	105 332	28 232 0	3.2104 %	EPEX EMCO	100.0000 % 0.0000 %	3.2104 % 0.0000 %
Poland	132 839	4 048 0 0	3.4449 %	TGE EPEX EMCO	77.7800 % 11.1100 % 11.1100 %	2.6794 % 0.3827 % 0.3827 %
Portugal	46 353	52 007	2.3340 %	OMIE	100.0000 %	2.3340 %

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	Traded volume 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	MS share to be used for sharing of SDAC costs in 2018	NEMO	NEMO share within MS to be used for sharing of SDAC costs in 2018	CACM Share - SDAC to be used for sharing of SDAC costs in 2018
Romania	43 569	23 299	1.7938 %	OPCOM	100.0000 %	1.7938 %
Slovakia	24 987	6 391	1.1096 %	OKTE	100.0000 %	1.1096 %
Slovenia	13 026	6 816	0.8583 %	BSP	100.0000 %	0.8583 %
Spain	233 172	184 377	8.5832 %	OMIE	100.0000 %	8.5832 %
Sweden	127 496	142 873 0 0	5.6064 %	EMCO EPEX NASDAQ	77.7800 %* 11.1100 %* 11.1100 %*	4.6459 %* 0.9086 %* 0.0519 %*
UK (NI whose consumption is 9.000 GWh)	303 902	42 822 101 806	9.2899 %	EPEX EMCO	70.4000 % 29.6000 %	6.5401 % 2.7498 %
Northern Ireland (calculated as part of 9 TWh of UK)		7 600	0.2835 %	SONI	100.0000 %	0.2835 %
Norway	113 709	0 137 895	5.2253 %	EPEX EMCO	0.0000 % 100.0000 %	0.0000 % 5.2253 %

The share of NASDAQ in Sweden was computed only for December 2018. For period of January to November the share of NASDAQ was 0 % and respectively the share of EMCO was 83.33 % and the share of EPEX 16.67 %.

1.4 There were no costs categorized as all NEMOs costs of operating the SDAC in 2018 due to the fact that SDAC was not yet considered operational during 2018.

1.5 The all TSOs costs of establishing and amending the SDAC in 2018 in the amount 21 770.00 € consist of costs related to establishment of SDAC

Related Task Force	Total costs of 2018
Legal MRC Extension TSOs only	10 654.00 €
PMO TCDA Support E-Bridge	11 116.00 €
Total SUM	21 770.00 €

- › The TSOs only costs for establishing and amending the SDAC, consist of external support for the PMO services of the TCDA Agreement and the Legal support (E-Bridge, Bernard Energy).
- › In 2017 there were no TSOs establishment costs, while in 2018 21 k€ has been occurred. The need for new cost elements created in order to support the drafting and the future implementation of the TCDA Agreement, in accordance to the CACM Regulation.

The following sharing key was used for sharing of all TSOs costs costs of establishing and amending the SDAC in 2018:

Member State	Parties	Final consumption of 2016 of SDAC Operational MS for SDAC costs in 2018	Traded volume (TV) 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	Share MS for 2018	Share within MS Jan-Dec 2018	Shares per TSO 2018
Austria	APG		0		100.00 %	2.239 %
Austria		61.852	26.267	2.239 %	100.00 %	2.239 %
Belgium	ELIA		0		100.00 %	2.453 %
Belgium		81.725	13.386	2.453 %	100.00 %	2.453 %
Bulgaria	ESO		0		100.00 %	1.159 %
Bulgaria		28.939	4.233	1.159 %	100.00 %	1.159 %
Croatia	HOPS		0		100.00 %	0.796 %
Croatia		15.300	139	0.796 %	100.00 %	0.796 %
Czech Republic	CEPS		0		100.00 %	2.034 %
Czech Republic		57.997	19.010	2.034 %	100.00 %	2.034 %
Denmark	ELSO		0		100.00 %	1.562 %
Denmark		31.152	25.447	1.562 %	100.00 %	1.562 %
Estonia	Elering		0		100.00 %	0.764 %
Estonia		7.139	8.767	0.764 %	100.00 %	0.764 %
Finland	Fingrid		0		100.00 %	3.083 %
Finland		80.759	52.249	3.083 %	100.00 %	3.083 %
France	RTE		0		100.00 %	11.424 %
France		440.971	85.697	11.424 %	100.00 %	11.424 %
Germany	50Hertz		0		21.96 %	3.278 %
Germany	Amprion		0		32.07 %	4.788 %
Germany	TenneT DE		0		28.44 %	4.246 %
Germany	Transnet		0		17.53 %	2.617 %
Germany		517.377	196.356	14.929 %	100.00 %	14.929 %
Greece	ADMIE		0		100.00 %	2.530 %
Greece		53.463	54.446	2.530 %	100.00 %	2.530 %
Hungary	Mavir		0		100.00 %	1.585 %
Hungary		37.541	18.579	1.585 %	100.00 %	1.585 %
Ireland	EirGrid (TSO)		0		100.00 %	1.405 %
Ireland		26.099	22.600	1.405 %	100.00 %	1.405 %
Italy	Terna		0		100.00 %	10.175 %
Italy		286.027	210.918	10.175 %	100.00 %	10.175 %
Latvia	AST		0		100.00 %	0.723 %
Latvia		6.482	7.191	0.723 %	100.00 %	0.723 %
Lithuania	Litgrid		0		100.00 %	0.821 %
Lithuania		9.750	8.799	0.821 %	100.00 %	0.821 %
Luxembourg	CREOS		0		100.00 %	0.601 %

Member State	Parties	Final consumption of 2016 of SDAC Operational MS for SDAC costs in 2018	Traded volume (TV) 2017 DA (GWh) to be used for sharing of SDAC costs in 2018	Share MS for 2018	Share within MS Jan-Dec 2018	Shares per TSO 2018
Luxembourg		6.372	0	0.601%	100.00%	0.601%
Netherlands	TenneT BV		0		100.00%	3.211%
Netherlands		105.332	28.232	3.211%	100.00%	3.211%
Poland	PSE		0		100.00%	3.400%
Poland		132.839	4.048	3.400%	100.00%	3.400%
Portugal	REN		0		100.00%	2.336%
Portugal		46.353	52.007	2.336%	100.00%	2.336%
Romania	Trans-electrica		0		100.00%	1.794%
Romania		43.569	23.299	1.794%	100.00%	1.794%
Slovakia	SEPS		0		100.00%	1.110%
Slovakia		24.987	6.391	1.110%	100.00%	1.110%
Slovenia	ELES		0		100.00%	0.859%
Slovenia		13.026	6.816	0.859%	100.00%	0.859%
Spain	REE		0		100.00%	8.589%
Spain		233.172	184.377	8.589%	100.00%	8.589%
Sweden	Affärsverket svenska kraftnät		0		100.00%	5.611%
Sweden		127.496	142.873	5.611%	100.00%	5.611%
UK (including Northern Ireland whose consumption is 9 TWh)	National Grid		0		32.35%	3.098%
UK (including Northern Ireland whose consumption is 9 TWh)	Britned		0		32.35%	3.098%
UK (including Northern Ireland whose consumption is 9 TWh)	Nemo Link		0		32.35%	3.098%
UK (including Northern Ireland whose consumption is 9 TWh)	SONI (TSO)		0		2.96%	0.284%
UK (including Northern Ireland whose consumption is 9 TWh)		303.902	152.228	9.578%	100.00%	9.578%
Norway	Statnett		0		100.00%	5.229%
Norway		113.709	137.895	5.229%	100.00%	5.229%
Grand Total		2.893.330	1.492.250	100.000%		100.000%

1.6 There were no costs categorized as all TSOs costs of operating the SDAC in 2018 due to the fact that SDAC was not yet considered operational during 2018

2 Actual SIDC costs of 2018

2.1 The joint all TSOs and all NEMOs costs of establishing and amending the SIDC consists of:

- **SIDC algorithm and ID MCO Function System in the amount of 4 853 794.13 € as further detailed below.**

Category	Total costs of 2018
Accession stream	106 539.97 €
DBAG invoices	3 514 293.91 €
Expenses - tender	300.00 €
Go-live coordinator	58 118.13 €
IDSC. OTF. MTF. JCT	120 487.88 €
IPT. BMSG. COM SG	5 740.28 €
IPT. COM SG	40 821.50 €
IT TF convener	11 925.00 €
ITTF	80 250.00 €
ITTF. BMSG	132 433.54 €
JCT	53 583.59 €
Joint OPSCOM Chair	4 278.13 €
Joint PMO	178 330.29 €
Lip Testing	64 434.65 €
LTF	62 038.96 €
Meeting expenses	7 200.00 €
ProjectPlace	6 036.94 €
QA & RM	23 082.94 €
ReQtest	17 345.00 €
SG Losses	7 261.93 €
Travel & meeting expenses	81 995.91 €
Travel & meeting expenses - LIP Testing	91.56 €
Travel expenses	17 516.66 €
XTG	230 209.38 €
(blank)	29 478.00 €
Total SUM	4 853 794.13 €

2018 was a key year for the XBID project with Go-Live successfully achieved in 14 countries on 12th and 13th June. By the end of December 7.8 million trades had been completed in XBID.

The year consisted of two distinct parts:

- › Firstly, preparing for, and delivering Go-Live together with post Go-Live stabilisation activities; and
- › Secondly, implementation of the post Go-Live structure, testing of the next Release 1.5, and activities relating to the preparation of Release 2.0 and commencement of 2nd wave Go-Live LIP testing

An overview of the activities undertaken in the main groups within the XBID project and organisational structure are provided below.

Intraday Steering Committee (IDSC) Chaired by Jean Verseille, Artelys, and Stefano Alaimo, GME

The IDSC was responsible for ensuring that all unresolved issues were concluded before Go-Live and that all parties/all the Local Implementation Projects (LIPs) were ready for Go-Live. There were several difficult issues which had to be managed carefully. These included Tick Size, Products, Orderbook Depth limitations and Cross-clearing. EFET also wrote a letter raising concerns about 'double order books'. A combination of IDSC discussions, Executive meetings with Dr Borchardt and a Lock-In on Cross Clearing were held with successful closure of these issues before Go-Live.

Agreement was also reached on the design of the post Go-Live organisation structure.

The IDSC have also reviewed the commercials provided by DBAG for Release 2.0 (Enhanced Shipping for 2nd Wave Go-Live, Removal of Order Book Depth Limitation to 100 etc.). These were further negotiated in a High-Level Meeting held between the Co-Chairs, Project Parties and DBAG in early December.

A tender process was also managed in the Autumn to select a new Project Management Organisation (PMO) to support the Joint Project activities. This resulted in EY being appointed on rates lower than the previous incumbent, with services commencing in January 2019.

Integrated Planning Team (IPT, known as Integrated Co-ordination Team after Go-Live) Chaired by TSO Project Manager, National Grid. PMO provided by E-Bridge

The IPT are responsible for co-ordination of the integrated plan across all work streams. Regular meetings were held to update the status of milestones in the plan and co-ordinate dependencies and risks. Issues were highlighted to the IDSC Co-Chairs and mitigations agreed.

Budget Management Sub Group (BMSG) Chaired by TSO Project Manager, National Grid. PMO provided by E-Bridge

The BMSG managed financial reporting and validation monthly. This included the preparation of the monthly reports to NRAs which were provided up to and including the month of Go-Live. The BMSG also developed the resettlement process which was key for resettling the Accession Stream PMO costs as well as the costs incurred between the introduction of CACM in February 2017 and Go-Live (which were initially borne by the APCA (All Party Co-operation Agreement) parties. These have been resettled in accordance with the Intraday Operational Agreement (IDOA) in line with CACM sharing principles.

Q3 and Q4 costs have also been resettled according to the CACM sharing key and in compliance with the IDOA, amongst the IDOA signatories.

The budget for 2018 was also revised when the re-planning of Go-Live from April to June was necessary. This actually reduced the overall budget as the additional 'Establish/Amend' costs for the period before Go-Live were lower than the savings in 'Operate'.

The budget for 2019 and financial roadmap for 2020–2021 was developed and approved by 1st November in line with IDOA.

Communications Sub Group (COM SG) Chaired by TSO Project Manager, National Grid. PMO provided by E-Bridge

In preparation for Go-Live, communications were managed using a number of channels. A large scale 'Pre-launch Event' was delivered on 31st January at Brussels Airport when approximately 135 market parties and stakeholders attended. Dr Borchardt gave the key note address and presentations were given on many aspects of XBID as well as future plans post Go-Live.

User Group meetings were also held with the Market Parties in March (conference call) and April (physical meeting). A series of press releases were issued in preparation for, and at point of Go-Live.

The communication of the removal of rollback systems was made in September following the stable operation of XBID since Go-Live. A further User Group meeting with the Market Parties was held in November. At this meeting, it was agreed that from now on the Market European Stakeholder Committee (MESK) would be the primary communications interface between the XBID project and Market Parties.

XBID Testing Group (XTG) Co-chaired by representatives from EPEX and Nordpool EMCO

One of the main elements in ensuring that XBID Go-Live was a success was the completion of testing. The year started with a challenge when DBAG identified some latent faults in January. These were of such significance that the IDSC decided at the end of January that the previously foreseen Go-Live date in April needed to be postponed to June. This enabled DBAG to deploy an additional release, and project parties undertook the associated testing. Release 1.4 was deployed in February. This was tested until the end of April when the Exit Criteria were successfully met with all parties satisfied that the quality of the XBID solution was good. During May Failover testing was undertaken and final Integrity Testing.

Two Trial Periods were also undertaken with the Market Parties – the first in February and the second in May. These helped Market Parties gain familiarity with the system and prepare for Go-Live as well as providing useful feedback for Project Parties.

After Go-Live Release 1.5, which rectified a number of faults, was deployed for testing in September, with the testing completed in October. Testing of the Austrian-German Bidding Zone split was also undertaken and it was deployed into production at the end of September. Daylight Saving Testing was undertaken in October before the Clock Change, which passed without incident.

Note: After Go-Live a new organisational body was mobilised – the Quality Assurance and Release Management (QARM) group (see – section 9. Below). QARM are responsible for ensuring successful preparation for, and implementation, of new Releases and geographical extensions of XBID. The XTG is under the QARM.

LIP Testing Chaired by representative from E-Bridge (PMO provided by the same representative)

During January, the last phase of LIP Testing the Simulation Integration Test was performed using realistic trading scenarios (high number of orders, automatic validations). The LIP Testing group later, shortly before Go-Live, joined XTG in validating Release 1.4 in the End-to-End testing.

After Go-Live preparation was made for 2nd Wave Go-Live Connectivity and Integration Testing. The LIP Integration Testing commenced in November and the first Run of Functional Integration Testing commenced in December.

Legal Task Force (LTF). Co-chaired by representatives of the NEMOs (through Modo-Law) and TSOs (through BEA)

The primary task of the LTF was to ensure the completion of the Intraday Operational Agreement (IDOA) which was an essential pre-requisite for Go-Live. Important information relating to cost sharing within each Member State was required before the Exhibit (No. 12) covering this could be completed. The project parties worked with the NRAs to ensure the relevant information was made available. Other important aspects relating to liabilities were also concluded.

Following the Lock-In held with Dr Borchardt on 16th April all parties expressed their willingness to sign the IDOA apart from Slovakia. In May, the IDOA signatory process commenced and it was completed prior to Go-Live.

Market System Design (MSD, previously known as IT Task Force before Go-Live). Chaired by representative from E-Bridge (PMO provided by the same representative)

The MSD manages technical aspects of the joint project. This includes development of Change Requests, review of technical documents and clarifications of points raised by the XTG.

Of particular note is also the work overseen by the MSD with regards to Losses on DC cables. A Change has been specified so that DBAG can prepare a Proof of Concept for this functionality. A workshop on this concept was held with the NRAs in September and clarification with ACER is also underway.

The technical documentation of the system for Release 2.0 was reviewed in November-December.

Quality Assurance and Release Management (QA&RM). Chaired by NEMO Project Manager, Indra (PMO provided by the same representative)

The QA&RM group was established after Go-Live to ensure that future releases of XBID are tested robustly and deployed into production seamlessly (XTG now reports through QA&RM). QA&RM also has responsibility for ensuring that further geographical expansion (Go-Live) is prepared with an agreed launch strategy and assurance that all Go-Live preparatory activities are completed.

Since the QA&RM group have been established they have been involved in the scoping process for Release 2.0, reviewed the Managerial Documents for Release 2.0 (Enhanced Shipper, removal of Order Book Limitation to 100 etc.) as well as defining the 2nd wave Go-Live strategy options.

Go-Live Co-ordination. Chaired by NEMO Project Manager, Indra (PMO provided by the same representative)

The Go-Live Launch Approach and Strategy were agreed and activities were co-ordinated by the Go-Live Co-ordinator.

In preparation for Go-Live activities were undertaken such as Certification of the Central System, Go-Live Check Lists and Scripts, development of Rollback and Roll forward procedures and Operator training. All parties signed Technical Readiness Declarations before Go-Live.

Daily Go-Live calls were held and completion of Go-Live activities were tracked to a successful completion.

The following sharing key was used for sharing of all TSOs and NEMOs costs of establishing and amending the SIDC in 2018:

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	TSO/NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018	Contract shares (with-out OKTE and SEPS) - to be used for sharing of SIDC costs in 2018*
Austria	61 852	2.3335 %	APG EPEX EXAA NP	50.0000 % 37.9200 % 6.4400 % 5.6400 %	1.1667 % 0.8849 % 0.1503 % 0.1316 %	1.1811 % 0.8958 % 0.1521 % 0.1332 %
Belgium	81 725	2.9345 %	ELIA EPEX NP	50.0000 % 45.0000 % 5.0000 %	1.4672 % 1.3205 % 0.1467 %	1.4853 % 1.3368 % 0.1485 %
Bulgaria	28 939	1.3381 %	ESO IBEX	50.0000 % 50.0000 %	0.6691 % 0.6691 %	0.6773 % 0.6773 %
Croatia	15 300	0.9257 %	HOPS CROPEX	50.0000 % 50.0000 %	0.4628 % 0.4628 %	0.4685 % 0.4685 %
Czech Republic	57 997	2.2169 %	CEPS OTE	50.0000 % 50.0000 %	1.1085 % 1.1085 %	1.1221 % 1.1221 %
Denmark	31 152	1.4051 %	ENDK NP EPEX	50.0000 % 41.6650 % 8.3350 %	0.7025 % 0.5854 % 0.1171 %	0.7112 % 0.5926 % 0.1186 %
Estonia	7 139	0.6789 %	Elering NP EPEX	50.0000 % 41.6650 % 8.3350 %	0.3394 % 0.2828 % 0.0566 %	0.3436 % 0.2863 % 0.0573 %
Finland	80 759	2.9053 %	Fingrid NP EPEX	50.0000 % 41.6650 % 8.3350 %	1.4526 % 1.2105 % 0.2422 %	1.4706 % 1.2254 % 0.2451 %
France	440 971	13.7988 %	RTE EPEX NP	50.0000 % 25.0000 % 25.0000 %	6.8994 % 3.4497 % 3.4497 %	6.9845 % 3.4923 % 3.4923 %
Germany	517 377	16.1095 %	50Hertz Amprion TenneT TransnetBW EPEX NP EXAA	21.9600 % 32.0700 % 28.4400 % 17.5300 % 0.0000 % 0.0000 % 0.0000 %	3.5376 % 5.1663 % 4.5815 % 2.8240 % 0.0000 % 0.0000 % 0.0000 %	3.5813 % 5.2300 % 4.6381 % 2.8588 % 0.0000 % 0.0000 % 0.0000 %
Greece	53 463	2.0798 %	ADMIE HENEX	50.0000 % 50.0000 %	1.0399 % 1.0399 %	1.0527 % 1.0527 %
Hungary	37 541	1.5983 %	MAVIR HUPX	50.0000 % 50.0000 %	0.7991 % 0.7991 %	0.8090 % 0.8090 %
Ireland	26 099	1.2522 %	EirGRID EirGRID NP	50.0000 % 50.0000 % 0.0000 %	0.6261 % 0.6261 % 0.0000 %	0.6338 % 0.6338 % 0.0000 %
Italy	286 027	9.1130 %	Terna GME	50.0000 % 50.0000 %	4.5565 % 4.5565 %	4.6127 % 4.6127 %

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	TSO/NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018	Contract shares (with-out OKTE and SEPS) - to be used for sharing of SIDC costs in 2018*
Latvia	6 482	0.6590 %	AST NP EPEX	50.0000 % 41.6650 % 8.3350 %	0.3295 % 0.2746 % 0.0549 %	0.3336 % 0.2780 % 0.0556 %
Lithuania	9 750	0.7578 %	LITGRID NP EPEX	50.0000 % 41.6650 % 8.3350 %	0.3789 % 0.3157 % 0.0632 %	0.3836 % 0.3196 % 0.0639 %
Luxembourg	6 372	0.6557 %	Creos EPEX NP	100.0000 % 0.0000 % 0.0000 %	0.6557 % 0.0000 % 0.0000 %	0.6638 % 0.0000 % 0.0000 %
Netherlands	105 332	3.6484 %	TenneT BV EPEX NP	50.0000 % 50.0000 % 0.0000 %	1.8242 % 1.8242 % 0.0000 %	1.8467 % 1.8467 % 0.0000 %
Poland	132 839	4.4803 %	PSE TGE EPEX NP	50.0000 % 16.6667 % 16.6667 % 16.6667 %	2.2401 % 0.7467 % 0.7467 % 0.7467 %	2.2678 % 0.7559 % 0.7559 % 0.7559 %
Portugal	46 353	1.8648 %	REN OMIE	50.0000 % 50.0000 %	0.9324 % 0.9324 %	0.9439 % 0.9439 %
Romania	43 569	1.7806 %	TEL OPCOM	50.0000 % 50.0000 %	0.8903 % 0.8903 %	0.9013 % 0.9013 %
Slovakia	24 987	1.2186 %	SEPS OKTE	50.0000 % 50.0000 %	0.6093 % 0.6093 %	0.0000 % 0.0000 %
Slovenia	13 026	0.8569 %	ELES BSP	50.0000 % 50.0000 %	0.4284 % 0.4284 %	0.4337 % 0.4337 %
Spain	233 172	7.5145 %	REE OMIE	50.0000 % 50.0000 %	3.7573 % 3.7573 %	3.8036 % 3.8036 %
Sweden	127 496	4.3187 %	SVK NP EPEX	50.0000 % 41.6650 % 8.3350 %	2.1593 % 1.7994 % 0.3600 %	2.1860 % 1.8216 % 0.3644 %
UK (including Northern Ireland whose consumption is 9 TWh)	303 902	9.6536 %	NationalGrid BritNed EPEX NP SONI SONI	24.2596 % 24.2596 % 48.4989 % 0.0204 % 2.9615 % 0.0000 %	2.3419 % 2.3419 % 4.6819 % 0.0020 % 0.2859 % 0.0000 %	2.3708 % 2.3708 % 4.7396 % 0.0020 % 0.2894 % 0.0000 %
Norway	113 709	3.9017 %	Statnett EPEX NP	50.0000 % 0.0000 % 50.0000 %	1.9509 % 0.0000 % 1.9509 %	1.9749 % 0.0000 % 1.9749 %

* As OKTE and SEPS have not signed the IDOA contract, the share of OKTE and SEPS is being pre-financed by other NEMOs and will be invoiced to OKTE and SEPS after their adherence to the contract.

2.2 The joint all TSOs and all NEMOs costs of operating the SIDC consists of:

- SIDC algorithm and ID MCO Function System operation in the amount of 958 630.07 € as further detailed below.

Category	Total costs of 2018
DBAG Invoices	449 696.14 €
ICCC SPOC	335 549.50 €
Joint OPSCOM Chair	27 981.25 €
Joint PMO	31 575.79 €

Category	Total costs of 2018
LTF	5 134.38 €
OPSCOM	54 142.20 €
ProjectPlace	6 036.94 €
ReQtest	5 740.00 €
Travel & meeting expenses	14 899.11 €
XTG	2 543.75 €
(blank)	25 331.00 €
Total SUM	958 630.07 €

The following sharing key was used for sharing of all TSOs and NEMOs costs of operating the SIDC in 2018 (Only Member States that are part of operation are included):

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	TSO/NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018
Austria	61 852	3.7975 %	APG	50.0000 %	1.8987 %
			EPEX	43.5262 %	1.6529 %
			NP	6.4738 %	0.2458 %
Belgium	81 725	4.7307 %	ELIA	50.0000 %	2.3654 %
			EPEX	45.0000 %	2.1288 %
			NP	5.0000 %	0.2365 %
Denmark	31 152	2.3558 %	ENDK	50.0000 %	1.1779 %
			NP	41.6650 %	0.9815 %
			EPEX	8.3350 %	0.1964 %
Estonia	7 139	1.2281 %	Elering	50.0000 %	0.6141 %
			NP	50.0000 %	0.6141 %
			EPEX	0.0000 %	0.0000 %
Finland	80 759	4.6853 %	Fingrid	50.0000 %	2.3427 %
			NP	41.6650 %	1.9521 %
			EPEX	8.3350 %	0.3905 %
France	440 971	21.6011 %	RTE	50.0000 %	10.8005 %
			EPEX	25.0000 %	5.4003 %
			NP	25.0000 %	5.4003 %
Germany	517 377	25.1891 %	50Hertz	21.9600 %	5.5315 %
			Amprion	32.0700 %	8.0782 %
			TenneT	28.4400 %	7.1638 %
			TransnetBW	17.5300 %	4.4157 %
			EPEX	0.0000 %	0.0000 %
			NP	0.0000 %	0.0000 %
EXAA	0.0000 %	0.0000 %			

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	TSO/NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018
Latvia	6 482	1.1973 %	AST NP EPEX	50.0000 % 50.0000 % 0.0000 %	0.5986 % 0.5986 % 0.0000 %
Lithuania	9 750	1.3507 %	LITGRID NP EPEX	50.0000 % 50.0000 % 0.0000 %	0.6754 % 0.6754 % 0.0000 %
Netherlands	105 332	5.8393 %	TenneT BV EPEX NP	50.0000 % 50.0000 % 0.0000 %	2.9196 % 2.9196 % 0.0000 %
Portugal	46 353	3.0696 %	REN OMIE	50.0000 % 50.0000 %	1.5348 % 1.5348 %
Spain	233 172	11.8427 %	REE OMIE	50.0000 % 50.0000 %	5.9214 % 5.9214 %
Sweden	127 496	6.8801 %	SVK NP EPEX	50.0000 % 41.6650 % 8.3350 %	3.4401 % 2.8666 % 0.5735 %
Norway	113 709	6.2327 %	Statnett EPEX NP	50.0000 % 0.0000 % 50.0000 %	3.1163 % 0.0000 % 3.1163 %

2.3 The all NEMOs costs of establishing and amending the SIDC consists of:

- Interim NEMO Committee costs in the amount of 156 600.50 €
- NEMOs only costs of establishing and amending the SIDC in the amount of 522 243.11 € as further detailed below.

50 % of all costs encountered by Interim NEMO Committee in its tasks of preparation of CACM methodologies and proposals in 2018 in total of 156 600.50 €

Related Task Force	Total costs of 2018
NEMO Committee	187 695.85 €
Technical TF	46 937.97 €
Back-up Methodology TF	10 030.47 €
Cost TF	34 225.00 €
Legal TF	26 102.34 €
Reporting and Comm TF	6 012.50 €
Procurement TF	2 196.88 €
Total SUM	313 201.01 €

The detail information related to Interim NEMO Committee is available under the NEMOs only cost of establishing and amending the SDAC.

Respective costs attributable to all NEMOs for establishment and amendment of SIDC in total of 522 243.11 €

Category	Total costs of 2018
Budget Management TF (BMTF)	4 656.33 €
Legal WG (LWG)	39 893.69 €
Project Management (PM)	283 431.48 €
Procedures WG (PWG)	43 232.93 €
Technical WG (TWG)	149 525.55 €
Operational Committee (OPSCOM)	1 503.13 €
Total SUM	522 243.11 €

- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › The resources for NEMOs only part of SIDC project were secured only through external providers support by Indra Czech Republic s.r.o. for BMWG, PM, PWG and TWG and by MODO Advocaten for LWG.

- › The external support for PMO services was selected based on a competitive tender prior to CACM entry into force.
- › The external support for LWG services was selected based on a direct assignment prior to CACM entry into force.
- › Budget Management WG (BMWG) is responsible for budgeting, validating and reviewing of costs associated with IDOA by NEMOs.
- › Legal WG (LWG) is responsible for delivery of contractual framework needed by NEMOs in order to establish and operate the SIDC.
- › Project Management (PM) is responsible for project management of NEMOs only bodies under the SIDC project.
- › Procedures WG (PWG) is responsible for establishing the NEMOs only procedures of SIDC and NEMOs activities (drafting and review) related to joint NEMOs and TSOs procedures.
- › Technical WG (TWG) is responsible for review of technical and functional specification of the SIDC MCO Function System.
- › The NEMO Operational Committee is responsible for change control process on NEMOs site.

The following sharing key was used for sharing of all NEMOs costs of establishing and amending the SIDC in 2018:

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	NEMO	NEMO share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018	Contract shares (without OKTE) - to be used for sharing of SIDC costs in 2018*
Austria	61 852	2.3335%	EPEX EXAA EMCO	75.8400% 12.8800% 11.2800%	1.7697% 0.3006% 0.2632%	1.7916% 0.3043% 0.2665%
Belgium	81 725	2.9345%	EPEX EMCO	90.0000% 10.0000%	2.6410% 0.2934%	2.6736% 0.2971%
Bulgaria	28 939	1.3381%	IBEX	100.0000%	1.3381%	1.3546%
Croatia	15 300	0.9257%	CROPEX	100.0000%	0.9257%	0.9371%
Czech Republic	57 997	2.2169%	OTE	100.0000%	2.2169%	2.2443%
Denmark	31 152	1.4051%	EMCO EPEX	83.3300% 16.6700%	1.1708% 0.2342%	1.1853% 0.2371%
Estonia	7 139	0.6789%	EMCO EPEX	83.3300% 16.6700%	0.5657% 0.1132%	0.5727% 0.1146%

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	NEMO	NEMO share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018	Contract shares (without OKTE) - to be used for sharing of SIDC costs in 2018*
Finland	80 759	2.9053%	EMCO EPEX	83.3300% 16.6700%	2.4210% 0.4843%	2.4508% 0.4903%
France	440 971	13.7988%	EPEX EMCO	50.0000% 50.0000%	6.8994% 6.8994%	6.9845% 6.9845%
Germany	517 377	16.1095%	EPEX EMCO EXAA	50.0000% 50.0000% 0.0000%	8.0547% 8.0547% 0.0000%	8.1541% 8.1541% 0.0000%
Greece	53 463	2.0798%	HENEX	100.0000%	2.0798%	2.1054%
Hungary	37 541	1.5983%	HUPX	100.0000%	1.5983%	1.6180%
Ireland	26 099	1.2522%	EirGRID	100.0000%	1.2522%	1.2677%
Italy	286 027	9.1130%	GME	100.0000%	9.1130%	9.2254%
Latvia	6 482	0.6590%	EMCO EPEX	83.3300% 16.6700%	0.5491% 0.1099%	0.5559% 0.1112%
Lithuania	9 750	0.7578%	EMCO EPEX	83.3300% 16.6700%	0.6315% 0.1263%	0.6393% 0.1279%
Luxembourg	6 372	0.6557%	EPEX EMCO	50.0000% 50.0000%	0.3278% 0.3278%	0.3319% 0.3319%
Netherlands	105 332	3.6484%	EPEX EMCO	100.0000% 0.0000%	3.6484% 0.0000%	3.6934% 0.0000%
Poland	132 839	4.4803%	TGE EPEX EMCO	33.3333% 33.3333% 33.3333%	1.4934% 1.4934% 1.4934%	1.5118% 1.5118% 1.5118%
Portugal	46 353	1.8648%	OMIE	100.0000%	1.8648%	1.8878%
Romania	43 569	1.7806%	OPCOM	100.0000%	1.7806%	1.8025%
Slovakia	24 987	1.2186%	OKTE	100.0000%	1.2186%	Not applicable
Slovenia	13 026	0.8569%	BSP	100.0000%	0.8569%	0.8675%
Spain	233 172	7.5145%	OMIE	100.0000%	7.5145%	7.6072%
Sweden	127 496	4.3187%	EMCO EPEX	83.3300% 16.6700%	3.5988% 0.7199%	3.6432% 0.7288%
UK (including Northern Ireland whose consumption is 9 TWh)	303 902	9.3677%	EPEX EMCO	99.9580% 0.0420%	9.3637% 0.0039%	9.4793% 0.0040%
Northern Ireland (calculated as part of 9 TWh of UK)		0.2859%	SONI	100.0000%	0.2859%	0.2894%
Norway	113 709	3.9017%	EPEX EMCO	0.0000% 100.0000%	0.0000% 3.9017%	0.0000% 3.9499%

* As OKTE have not signed the IDOA and ANIDOA contracts, the share of OKTE is being pre-financed by other NEMOs and will be invoiced to OKTE after their adherence to the contract.

2.4 The all NEMOs costs of operating the SIDC in the amount of 70 735.22 €:

Category	Total costs of 2018
Legal WG (LWG)	635.73 €
Budget Management (BMTF)	1 398.95 €
Project Management (PM)	21 615.46 €
Procedures WG (PWG)	6 293.01 €
Technical WG (TWG)	37 323.32 €
Operational Committee (OPSCOM)	3 468.75 €
Total SUM	70 735.22 €

- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › The resources for NEMOs only part of SIDC project were secured only through external providers support by Indra Czech Republic s.r.o. for BMWG, PM, PWG and TWG and by MODO Advocatén for LWG.
- › The external support for PMO services was selected based on a competitive tender prior to CACM entry into force.
- › The external support for LWG services was selected based on a direct assignment prior to CACM entry into force.
- › Legal WG (LWG) is responsible for advising on operational questions related to the operation of SIDC.
- › Project Management (PM) is responsible for project management of NEMOs only bodies under the SIDC project.
- › Procedures WG (PWG) is responsible for operational review of the NEMOs only procedures of SIDC and NEMOs activities (drafting and review) related to joint NEMOs and TSOs procedures.
- › Technical WG (TWG) is responsible for review of technical and functional specification of the SIDC MCO Function System.
- › The NEMO Operational Committee is responsible for incident management process on NEMOs site.

The following sharing key was used for sharing of all NEMOs costs of operating the SIDC in 2018 (Only Member States that are part of operation are included):

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018
Austria	61 852	3.3577 %	EPEX EXAA NP	87.0523 % 0.0000 % 12.9477 %	3.0949 % 0.0000 % 0.4603 %
Belgium	81 725	4.2877 %	EPEX NP	90.0000 % 10.0000 %	4.0860 % 0.4540 %
Denmark	31 152	1.9209 %	NP EPEX	83.3300 % 16.6700 %	1.6948 % 0.3390 %
Estonia	7 139	0.7971 %	NP EPEX	83.3300 % 16.6700 %	0.7033 % 0.1407 %
Finland	80 759	4.2425 %	NP EPEX	83.3300 % 16.6700 %	3.7432 % 0.7488 %
France	440 971	21.1006 %	EPEX NP	50.0000 % 50.0000 %	11.1709 % 11.1709 %
Germany	517 377	24.6764 %	EPEX NP	50.0000 % 50.0000 %	13.0640 % 13.0640 %

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	MS share to be used for sharing of SIDC costs in 2018	NEMO	Share within MS to be used for sharing of SIDC costs in 2018	CACM Share - SIDC to be used for sharing of SIDC costs in 2018
Latvia	6 482	0.7663 %	NP EPEX	83.3300 % 16.6700 %	0.6761 % 0.1353 %
Lithuania	9 750	0.9193 %	NP EPEX	83.3300 % 16.6700 %	0.8111 % 0.1623 %
Luxembourg	6 372	0.7612 %	EPEX NP	50.0000 % 50.0000 %	0.4030 % 0.4030 %
Netherlands	105 332	5.3925 %	EPEX NP	100.0000 % 0.0000 %	5.7098 % 0.0000 %
Portugal	46 353	2.6323 %	OMIE	100.0000 %	2.7871 %
Spain	233 172	11.3755 %	OMIE	100.0000 %	12.0447 %
Sweden	127 496	6.4298 %	NP EPEX	83.3300 % 16.6700 %	5.6732 % 1.1349 %
Norway	113 709	5.7846 %	EPEX NP	0.0000 % 100.0000 %	0.0000 % 6.1249 %

2.5 The all TSOs costs of establishing and amending the SIDC consists of:

- All TSOs PMO and WG support in the amount of 767 549.29 € as further detailed below.

Category	Total costs of 2018
Aggregated PM costs	358 954.25 €
Central Admin	31 760.00 €
Audits NWE PXs	44 895.00 €
ECP-MPLS	316 544.04 €
Procurement costs	15 396.00 €
Total SUM	767 549.29€

In 2019 the all TSOs' budget for Establishing and Amending the SIDC is 662 k€ compared with 768 k€ actual out turn in 2018. The reason for the decrease is that there is no 'one off cost' for ECP/MPLS as there was in January 2018 when we were investing ahead of the 1st Go-Live. The full scale of the decrease has been partially offset by an increase in PM activities (there has been an increase from 14 to 31 parties involved) and Central Administration (configuration of test environments).

2.6 The all TSOs costs of operating the SIDC consists of:

- All TSOs PMO and WG support in the amount of 200 149.89 € as further detailed below.

Category	Total costs of 2018
Aggregated PM costs	44 795.22€
Central Admin	85 139.75€
ECP-MPLS	70214.92 €
Total SUM	200 149.89 €

In 2019 the all TSOs' budget for Operating the SIDC is 427 k€ compared to 200 k€ actual out turn in 2018. This increase is due to XBID being operational for the full year compared with just over 6 months in 2018. Hence the ECP/MPLS and Central Admin costs are at least doubled.

The following sharing key was used for sharing of all TSOs costs of the SIDC in 2018:

Member State	Final consumption in 2016 according to Report 105a (data from 04.06.2018) (in GWh)	TSO	Establishment and amendment			Operational	
			Share within MS	Share per TSO (including SEPS)	Share per TCID signatory party	Share within MS	Share per operational TSO
Austria	61 852	APG	100.000%	2.3335%	2.3623%	100.000%	3.797%
Belgium	81 725	Elia	100.000%	2.9345%	2.9707%	100.000%	4.731%
Bulgaria	28 939	ESO	100.000%	1.3381%	1.3546%	0.000%	0.000%
Croatia	15.300	HOPS	100.000%	0.9257%	0.9371%	0.000%	0.000%
Czech Republic	57 997	ČEPS	100.000%	2.2169%	2.2443%	0.000%	0.000%
Denmark	31 152	Energinet/ ELSO	100.000%	1.4051%	1.4224%	100.000%	2.356%
Estonia	7 139	Elering	100.000%	0.6789%	0.6872%	100.000%	1.228%
Finland	80.759	Fingrid	100.000%	2.9053%	2.9411%	100.000%	4.685%
France	440.971	RTE	100.000%	13.7988%	13.9690%	100.000%	21.601%
Germany	517.377	50 Hertz Amprion TTG TransnetBW	21.960% 32.070% 28.440% 17.530%	3.5376% 5.1663% 4.5815% 2.8240%	3.5813% 5.2300% 4.6381% 2.8588%	21.960% 32.070% 28.440% 17.530%	5.532% 8.078% 7.164% 4.416%
Greece	53.463	ADMIE	100.000%	2.0798%	2.1054%	0.000%	0.000%
Hungary	37 541	MAVIR	100.000%	1.5983%	1.6180%	0.000%	0.000%
Ireland	26 099	EirGrid	100.000%	1.2522%	1.2677%	0.000%	0.000%
Italy	286 027	Terna	100.000%	9.1130%	9.2254%	0.000%	0.000%
Latvia	6 482	AST	100.000%	0.6590%	0.6671%	100.000%	1.197%
Lithuania	9 750	Litgrid	100.000%	0.7578%	0.7672%	100.000%	1.351%
Luxembourg	6 372	CREOS	100.000%	0.6557%	0.6638%	0.000%	0.000%
Netherlands	105 332	TTN	100.000%	3.6484%	3.6934%	100.000%	5.839%
Poland	132 839	PSE	100.000%	4.4803%	4.5355%	0.000%	0.000%
Portugal	46 353	REN	100.000%	1.8648%	1.8878%	100.000%	3.070%
Romania	43 569	Trans-electrica	100.000%	1.7806%	1.8025%	0.000%	0.000%
Slovakia	24 987	SEPS	100.000%	1.2186%	0.0000%	0.000%	0.000%
Slovenia	13 026	ELES	100.000%	0.8569%	0.8675%	0.000%	0.000%
Spain	233 172	REE	100.000%	7.5145%	7.6072%	100.000%	11.843%
Sweden	127 496	Svk	100.000%	4.3187%	4.3720%	100.000%	6.880%
UK (including Northern Ireland whose consumption is 9 TWh)	303.902	BritNed NGIC SONI	48.519% 48.519% 2.961%	4.6838% 4.6838% 0.2859%	4.7416% 4.7416% 0.2894%	0.000% 0.000% 0.000%	0.000% 0.000% 0.000%
Norway	113.709	Statnett	100.000%	3.9017%	3.9499%	100.000%	6.233%

* SEPS as only TSOs did not sign TCID and hence their MS share of 1.2186% has been distributed on all other TSOs using the CACM sharing key.

3 Forecast of SDAC costs for 2019

3.1 The joint all TSOs and all NEMOs costs of establishing and amending the SDAC in the amount of 2 481 031.00 € consists of:

Category	Budget 2019
Simulation Facility Tool	64 400.00 €
Algorithm TF Coordination	27 400.00 €
Project Place Common Costs Users	1 800.00 €
Legal Support DAOA	6 500.00 €
PMO Technical Support (ICG)	90 000.00 €
Euphemia Releases	213 513.00 €
Leader Remuneration	201 049.00 €
MNA Project	259 230.00 €
PMB Releases	145 050.00 €
Price Coupling Algorithm R&D	1 275 089.00 €
Except. Conting. for MCO function	122 000.00 €
Financial management (income)	-25 000.00 €
SDAC project contingency	100 000.00 €
Total SUM	2 481 031.00 €

The total of 2019 budget was increased by 2.1 m€ for the Joint SDAC establishment costs, comparing to the 2018 actuals, which is mainly resulted with the introduction of the Joint SDAC PCR costs with the budget of 2.1 m€.

3.2 The joint all TSOs and all NEMOs costs of operating the SDAC in the amount of 217 400.00 € consists of:

Category	Budget 2019
Simulation Facility Tool operation	217 400.00 €
Total SUM	217 400.00 €

- › As of 2019 the Simulation Facility will be accessible to all NEMOs and all TSOs, therefore it is considered as joint costs.

- › The costs of operation of MRC and 4M MC shall be considered as joint all TSOs and all NEMOs costs of operating the SDAC only once the enduring solution is reached and the two regions are merged.

3.3 The all NEMOs costs of establishing and amending the SDAC consists of:

- All NEMO Committee costs in the amount of 243 386.00 €
- All NEMOs PMO and WG support in the amount of 1 200 667.94 € as further detailed below

50 % of all costs forecasted for 2019 for All NEMO Committee in its tasks of preparation of CACM methodologies and proposals in total of 243 386.00 €

Category	Budget 2019
Chairman	113 497.00 €
PMO and administrative costs	101 640.00 €
Legal Task Force	36 248.00 €
Cost Task Force	33 069.00 €
CACM Reporting Role	50 000.00 €
INC escalation role	11 000.00 €
Procurement Task Force	10 000.00 €
Back-up Methodology Task Force	16 500.00 €
Technical Task Force	54 817.00 €
Exceptional contingency	60 000.00 €
Total SUM	486 772.00 €

Compared to actuals of 2018:

- › NEMO Committee costs were split between costs attributable to the role of NEMO Committee Chairman and costs related to Project Management office.
- › The budget includes new task of INC escalation role in the amount of 11 k€ in accordance to operational contracts for SIDC and SDAC where NEMO Committee can perform the escalation role for the NEMOs.

- › Also, the new role for performing the CACM Reporting is budgeted for 50 k€ in 2019 in order to establish and execute the Algorithm Monitoring Methodology.
- › The exceptional contingency of 60 k€ is included in order to be able to cover unexpected tasks in 2019, however its usage must be first approved by the NEMO Committee and in standard situation is not expected to be used.

Respective costs attributable to all NEMOs for establishment and amendment of SDAC algorithm and MCO Function System for 2019 in total 1 200 667.94 €

Category	Budget 2019
Offline Maintenance	577 200.00 €
Total Administrative Fee	273 990.75 €
Total Leader Remuneration Fee	75 180.00 €
PMB development	19 425.00 €
Euphemia development	14 568.75 €
Research and development NEMO PMO	96 200.00 €
Support tasks	144 103.44 €
Total SUM	1 200 667.94 €

Compared to actuals of 2018:

- › The budget was refined to better cope with CACM costs categorization.
- › The development of PMB and Euphemia is considered as joint NEMOs and TSOs costs as of 2019 and only activities performed solely for the benefit of all NEMOs are considered as NEMOs only costs.
- › Support tasks now include all internal contribution of NEMOs resources in NEMOs only working groups.
- › So-called offline maintenance fee was extracted from algorithm working group budget in order to split the amounts for maintenance and for development.

3.4 The all NEMOs costs of operating the SDAC in the amount of 615 039.06 €

Category	Budget 2019
Online Maintenance	373 470.00 €
Total Administrative Fee	51 040.00 €
Total Leader Remuneration Fee	156 751.88 €
PMB release	10 500.00 €
Euphemia development	15 750.00 €
Support tasks	7 527.19 €
Total SUM	615 039.06 €

Based on the fact that SDAC is considered operational as of signature of Day ahead operation agreement. The 2019 is the first year where all NEMOs costs of operating the SDAC were budgeted and will be reported.

3.5 The all TSOs costs of establishing and amending the SDAC consist of:

Category	Budget 2019
Legal MRC Extension TSOs only	15 000.00 €
PMO TCDA Support E-Bridge	3 000.00 €
Total SUM	18 000.00 €

3.6 There are no costs budgeted as TSOs only costs of operating the SDAC in 2019.

4 Forecast of SIDC costs for 2019

4.1 The joint all TSOs and all NEMOs costs of establishing and amending the SIDC consists of:

Costs related to establishing and amending of SIDC in 2018 in total of 4 897 672.46 €

Category	Budget 2019
Aggregated Project Management costs	1 258 753.98 €
Procurement costs	12 000.00 €
Technical support tools (ProjectPlace. ReQTest)	23 364.00 €
DBAG costs - related to future Local implementation projectss	557 304.00 €
DBAG costs - development + Change requests	1 459 378.75 €
DBAG costs - hosting/maintenance ongoing	1 034 525.21 €
DBAG costs - hosting/maintenance increase with Change requests	28 753.14 €
DBAG - IT contingency	523 593.39 €
Total SUM	4 897 672.46 €

In 2019 the Joint all TSOs' and all NEMOs' budget for Establishing and Amending the SIDC is 4.898 m€. This compares with the actual out turn in 2018 of 4.854 m€ (which was an underspend against budget). The 2019 cost drivers include an increase in the Hosting and Maintenance costs for Change Requests which is offset by a lower budget for development Change Requests.

4.2 The joint all TSOs and all NEMOs costs of operating the SIDC consists of:

Costs related to operation of SIDC in 2019 in total of 2 054 526.50 €

Category	Budget 2019
Aggregated Project Management Costs	345 231.53 €
MPLS costs prefinanced by NEMOs respectively TSOs and defined as joint costs	61 764.00 €
Technical support tools (ProjectPlace. ReQTest)	23 364.00 €
DBAG costs - hosting/maintenance ongoing	899 068.82 €
DBAG costs - hosting/maintenance increase with Change Requests	67 090.65 €
Procurement costs	12 000.00 €
Settlement support costs (third party to be selected)	60 000.00 €
IC SPOC (ICCC)	586 007.50 €
Total SUM	2 054 526.50 €

In 2019 the Joint all TSOs' and all NEMOs' budget for Operating the SIDC is 2.055 m€. This compares with the actual out turn in 2018 of 0.959 m€. The increases are due to being operational for the full year and in particular the corresponding increases in Hosting & Maintenance and IC SPOC (Incident Committee Single Point of Contact – available 24 hours per day/355 days per year).

4.3 The all NEMOs costs of establishing and amending the SIDC consists of:

50 % of all costs forecasted for 2019 for All NEMO Committee in its tasks of preparation of CACM methodologies and proposals in total of 243 386 €

Category	Budget 2019
Chairman	113 497.00 €
PMO and administrative costs	101 640.00 €
Legal Task Force	36 248.00 €
Cost Task Force	33 069.00 €
CACM Reporting Role	50 000.00 €
INC escalation role	11 000.00 €
Procurement Task Force	10 000.00 €
Back-up Methodology Task Force	16 500.00 €
Technical Task Force	54 817.00 €
Exceptional contingency	60 000.00 €
Total SUM	486 772.00 €

Respective costs attributable to all NEMOs for establishment and amendment of SIDC in total of 530 000.00 € related to:

Category	Budget 2019
NEMOs organization	425 000.00 €
Costs of adaptation of PMI LAT	35 000.00 €
Procurement	10 000.00 €
Other costs and contingency	60 000.00 €
Total SUM	530 000.00 €

- › For the NEMOs organization there is a decrease compared to year 2018 by 20 % based on the fact that activities in several months prior to first go-live were quite extensive compared to rest of the year. The activities on NEMOs organization level for second wave go-live are not expected in same magnitude for costs attributable to all NEMOs for establishment and amendment of SIDC .

- › Other costs and contingency cover potential need of physical meetings organization and other ad-hoc tasks that were not able to be foreseen at the end of 2018.

4.4 The all NEMOs costs of operating the SIDC consist of:

Category	Budget 2019
Central Admin (PXs rotation)	368 000.00 €
NEMOs organization	230 000.00 €
Other costs and contingency	60 000.00 €
Total SUM	658 000.00 €

- › Main task of NEMO Central Admin is foreseen to be charged before the 2nd wave joins operation as for the first wave all NEMOs are taking the same share.
- › For the NEMOs organization there is an increase compared to year 2018 based on the fact that 2018 covered only half of the year and there is additional workload expected in relation to preparation of 2nd wave go-live.
- › Other costs and contingency cover potential need of physical meetings organization and other ad-hoc tasks that were not able to be foreseen at the end of 2018.

4.5 The all TSOs costs of establishing and amending the SIDC consists of:

Category	Budget 2019
Aggregated PM costs	430 500.00 €
ECP/MPLS	171 549.00 €
Central Admin	60 000.00 €
Total SUM	662 049.00 €

- › For aggregated PM costs, the budget estimate for 2019 was made in Sep 2018 and the actuals for the 1st HY 2018 were used as input. It was assumed that after go-live the PM costs would stay at fairly same level as TSO SC meetings and joint NEMO TSO meetings attended by the TSO chair and TSO PM continued running in the same frequency as before go-live. Further the extension of the cooperation from 14 to 31 TSOs would require more effort in coordination. Whereas the legal support requirement is expected to be lower due to most operational agreements and SLAs being in place, the support for cost reporting and settlement increased due to CACM.
- › For ECP/MPLS, the difference of 145 k€ is mainly due to that there is no one-off cost expected as it was the case in January 2018.
- › For Central Admin, these are variable costs for configuring the testing environments. When the 2019 budget was agreed, the TSOs did not have any visibility of how often environments need to be configured and what the involved time will be. The assumption was made that it will cost 5 k€ per month.
- › Nothing budgeted for procurement costs as no procurement was foreseen to take place in 2019.
- › Nothing budgeted for audit costs as NWE PX audits are not foreseen anymore.

4.6 The all TSOs costs of operating the SIDC consist of:

Category	Budget 2019
Aggregated PM costs	50 400.00 €
ECP/MPLS	171 549.00 €
Central Admin	205 000.00 €
Total SUM	426 949.00 €

- › For aggregated PM costs, the budget estimate for 2019 was made in Sep 2018 and the actuals for the 1st HY 2018 were used as input. It was assumed that after go-live the PM costs would stay at fairly same level as TSO SC meetings and joint NEMO TSO meetings attended by the TSO chair and TSO PM continued running in the same frequency as before go-live. Further the extension of the cooperation from 14 to 31 TSOs would require more effort in coordination. Whereas the legal support requirement is expected to be lower due to most operational agreements and SLAs being in place, the support for cost reporting and settlement increased due to CACM.
- › For ECP/MPLS, the increase is mainly due to that in 2019 the full year is budgeted, not just half a year as in 2018. Some contingency added.
- › For Central Admin, the increase is mainly due to that in 2019 the full year is budgeted, not just half a year as in 2018. Some contingency added.

Chapter B:

Regional costs resulting from coordinated activities of all NEMOs or TSOs cooperating in certain region

Following projects where NEMOs or TSOs cooperating in certain region in line with CACM Article 80 (2)(b) were recognized in 2017:

	Day-ahead regional projects
1	CWE project
2	CORE FB MC project
3	Nordic project
4	Italian Borders Working Table project
5	MRC project
6	GR-BG border project
7	4M MC project
8	SEM-GB project
9	Nordic MNA project
10	Baltic MNA project
11	DE-AT-PL-4M MC Project (Interim Coupling)

	Intraday regional projects
12	LIP 1 – Nordic project
13	LIP2 – Kontek project
14	LIP 3 – DK1/DE, DE/NL project
15	LIP 4 – NorNed project
16	LIP 5 – FR/DE, CH/DE, CH/FR, DE/AT project
17	LIP 6 – NL/BE project
18	LIP 8 – FR/BE project
19	LIP 9/12 – FR/ES, ES-PT project
20	LIP 13 – BaltLIP project
21	LIP 14 – XBID + CRIDA project
22	LIP 15 project
23	LIP 16 project
24	GR- BG border Intraday project

REGIONAL PROJECTS OF THE DAY AHEAD TIMEFRAME

1 Costs of CWE project (DA) – including CWE and DE-AT-LU MNA projects

The CWE market coupling project ensures the market coupling in the CWE region with a Flow Based Capacity Calculation Flow which means that the result of the market coupling must be found within the provided constraints of a Flow-Based domain. The CWE project is developing a Multiple NEMO configuration in the CWE region allowing designated or pass ported European NEMOs to enter into competition as foreseen by the CACM Guideline, the expected go live of this Multiple NEMO configuration in CWE is expected to go live as from mid 2019.

The default CACM sharing key applies for the CWE project.

1.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

2018 Costs of establishing and amending		2018 Costs of operating	
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	274 273.22 €	0.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2018
MNA project PMO	105 000.00 €
MNA test manager	72 559.47 €
MNA project convener	35 843.75 €
JSC PMO	60 870.00 €
Total SUM	274 273.22 €

- › Rate of 925 €/MD was used for CWE internal resources
- › MNA TF is responsible for MNA implementation in CWE region.

1.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2018		Budgeted costs of operating for 2018	
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	772 200.00 €	52 000.00 €

The budgeted joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Budgeted joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2019
MNA project PMO	60 000.00 €
MNA test manager	30 000.00 €
MNA project convener	22 200.00 €
JSC PMO	600 000.00 €
Total SUM	772 200.00 €

Budgeted joint TSOs and NEMOs costs of operating	
Details	Total costs for 2019
CWE OPSCOM	22 000.00 €
FBvTF	12 000.00 €
Stakeholder Coordination WG	17 000.00 €
Q&A site	1 000.00 €
Total SUM	52.000.00 €

- › Rate of 925 €/MD was used for CWE internal resources
- › MNA TF is responsible for MNA implementation in CWE region.
- › The operating costs are estimated from MNA go-live (foreseen mid 2019) to end of 2019
- › CWE OPSCOM is responsible for the operation of the CWE Market Coupling. In particular but not limited to, update of CWE procedures and organization of testing activities.
- › The Stakeholder Coordination WG is responsible for communication with external stakeholders (CWE NRAs, Market parties)
- › FBvTF is the Flow-Based validation Task Force and is responsible for FB topics (FB analysis...)

2 Costs of CORE FB MC project (DA)

The Core Flow-Based Market Coupling project promotes the development and implementation of a Flow-Based day-ahead market coupling across the whole Core capacity calculation region (Core CCR) in the framework of the Single Day-Ahead Coupling (SDAC). The Core CCR consists of the bidding zone borders between the following EU Member States' bidding zones: Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Luxemburg, the Netherlands, Poland, Romania, Slovakia and Slovenia.

A specific regional sharing key approved by the competent national authorities of each Member States in the region on the 5/20/2015 applies in the Core Flow-based market coupling project.

2.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	110 208.00 €	0.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2018
PMO	105 583.00 €
Convenorships	4 625.00 €
Total SUM	110 208.00 €

- › Rate of 925 €/MD was used for the JWG convenorship provided by a NEMO
- › The external support for PMO services as of January 2018 was selected based on a competitive tender finalized at the mid of 2017.

2.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

		Budgeted costs of establishing and amending for 2019	Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	914 061.00 €	52 000.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Budgeted joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2019
PMO	393 070.00 €
Cost of Flow Based User Group & Market Training	182 315.00 €
3 rd party services	23 940.00 €
Convenorships	193 756.00 €
Specific common deliverables	90 146.00 €
Operational costs of simulations	30 835.00 €
Total SUM	914 061.00 €

- › Rate of 925 €/MD is used for the convenorships provided by NEMOs
- › The external support for PMO services as of January 2018 was selected based on a competitive tender finalized at the beginning of 2017.

3 Nordic project (DA)

The objective of the Nordic project is to ensure the robustness of the current operation of the single day-ahead coupling in the Nordic region.

A specific regional sharing key is used for that project.

3.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	162 300.00 €
	NEMOs and TSOs costs	0.00 €	265 000.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of operating	
Details	Total costs for 2018
Administrative fees	3 300.00 €
Estimated total cost of the verification of market coupling results and congestion income distribution	159 000.00 €
Total SUM	162 300.00 €

- › The administrative fees in the above table cover the costs of the Project Place licenses for the operational Nordic day-ahead project.
- › The regional operational costs in the above table encompass the cost of verifying the market coupling flow results during the market coupling session, and the distribution of the congestion income generated in the single day-ahead coupling.

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of operating	
Details	Total costs for 2018
The estimated total cost of the Nordic regional fallback solution of keeping the Nordic bidding zones coupled in case of partial or full decoupling at the MRC level	265 000.00 €
Total SUM	265 000.00 €

- › The operational costs in the above table encompass the cost of Nordic fallback solution. According to this solution, the Nordic bidding zones are always kept internally coupled within the Nordic-Baltic region. The costs of this solution stem from the need to maintain a separate IT infrastructure and operational readiness for calculating the bidding zone prices and cross-zonal flows for the Nordic-Baltic region in case the region is decoupled from the European market coupling.

3.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	162 300.00 €
	NEMOs and TSOs costs	0.00 €	265 000.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of operating	
Details	Total costs for 2019
Administrative fees	3 300.00 €
Estimated total cost of the verification of market coupling results and congestion income distribution	159 000.00 €
Total SUM	162 300.00 €

- › The administrative fees in the above table cover the costs of the Project Place licenses for the operational Nordic day-ahead project.
- › The regional operational costs in the above table encompass the cost of verifying the market coupling flow results during the market coupling session, and the distribution of the congestion income generated in the single day-ahead coupling.

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of operating	
Details	Total costs for 2019
The estimated total cost of the Nordic regional fall-back solution that includes keeping the Nordic bidding zones coupled in case of partial or full decoupling on the MRC level	265 000.00 €
Total SUM	265 000.00 €

- › The operational costs in the above table encompass the cost of Nordic fallback solution. According to this solution, the Nordic bidding zones are always kept internally coupled within the Nordic-Baltic region. The costs of this solution stem from the need to maintain a separate IT infrastructure and operational readiness for calculating the bidding zone prices and cross-zonal flows for the Nordic-Baltic region in case the region is decoupled from the European market coupling.

4 Italian Borders Working Table (IBWT) project for Day Ahead Market

The main objective of the Italian Borders Working Table project is to coordinate operations amongst the involved parties.

The involved parties are: Austrian Power Grid AG, Croatian Transmission System Operator Ltd., ELES, d.o.o., sistemski operater prenosnega elektroenergetskega omrežja, Independent Power Transmission Operator S.A., RTE Réseau de Transport d'Electricité, Swissgrid AG, TERNA - Rete Elettrica Nazionale S.p.A., BSP Energy Exchange LL C, Croatian Power Exchange Ltd., EPEX SPOT SE, EXAA Abwicklungsstelle für Energieprodukte AG, Gestore dei Mercati Energetici S.p.A. and LAGIE, Operator of Electricity Market S.A

A specific regional sharing key applies for this project.

4.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

Costs of establishing and amending from 14th February 2017			Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	18 234.06 €	0.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2018
IPT Convener	18 234.06 €
Total SUM	18 234.06 €

- › Common costs stated above were covered by parties requesting the change, in this case HOPS and CROPEX with usage of equal sharing key
- › Rate of 925 €/MD was used for internal resources of NEMOs

4.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	45 900.00 €	0.00 €

The budgeted joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Budgeted joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2019
IPT and TWG Convener	45 900.00 €
Total SUM	45 900.00 €

- › Common costs stated above will be covered by parties requesting the change
- › Rate of 925 €/MD was used for internal resources of NEMOs

5 MRC project for Day Ahead Market

5.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	240 564.00 €
	NEMOs and TSOs costs	0.00 €	50 185.00 €

The TSOs costs of establishing and amending the MRC consist of:

MRC - TSOs costs of operating the MRC	
Details	Total costs for 2018
PMO Activity - JAO fees	124 221.00 €
PMO - Travel and Meeting Organization Expenses	40 351.00 €
PMO Activity - Consultancy Services E-Bridge	75 993.00 €
Total SUM	240 564.00 €

- › TSOs only costs, consist of the PMO services of the BMTF, travel and meetings' organizational expenses and the general PMO services (JAO, E-Bridge) for the SDAC Joint Steering Committee (JSC).
- › The external support of the PMO and Legal services, were provided based on the direct assignment, as a continuity of the selected service providers, by the SDAC JSC.
- › The TSOs of the Budget Management Task Force (BMTF), are responsible for budgeting, validating and reviewing of costs, associated with the SDAC JSC, who provides the final cost approval.
- › The cost sharing methodology for the 2018 actual costs is based on the regional MRC sharing (between MRC TSOs), according to the TSOs NWE Cooperation Agreement. Resettlement shall take place in 2019 to apply CACM shares from 14th February 2017 to 31st December 2018 costs.

- › In 2017 there were no TSOs establishment costs, while in 2018 21 k€ has been occurred. The need for new cost elements created in order to support the drafting and the future implementation of the TCDA Agreement, in accordance to the CACM Regulation.
- › The 2018 actuals of the PMO JSC services costs, exceed by 46 k€ the 2017 actual costs, due to the increased requirements for the preparation of the new Single Day-Ahead Agreements (need for more meetings, calls etc.)

The joint TSOs and NEMOs costs of operating the MRC consist of:

Details	Total costs for 2018
Legal TF	9 602.00 €
Secretarial Services OPSCOM	40 583.00 €
Total SUM	50 185.00 €

- › For the Joint Operational costs, the amount was reduced by 35 k€ comparing to 2017, as the Legal costs for the DAOA, were shifted to the Joint establishment costs.
- › The Secretarial OPSCOM services were increased by 23 k€, comparing to 2017, due to additional support of the border extensions and Go-Lives.

5.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

		Budgeted costs of establishing and amending for 2019	Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	375 800.00 €
	NEMOs and TSOs costs	0.00 €	115 000.00 €

The TSOs costs of establishing and amending the MRC consist of:

MRC - TSOs costs of operating the MRC	
Details	Total costs for 2019
PMO Activity - JAO fees	200 800.00 €
PMO - Travel and Meeting Organization Expenses	40 000.00 €
PMO Activity - Consultancy Services E-Bridge	135 000.00 €
Total SUM	375 800.00 €

- › The budget for 2019 was calculated, based to the TSOs only 2018 SDAC/MRC actuals costs.
- › For the budgeted amount for the 2019 TSOs operating SDAC/MRC costs, has been increased comparing to the actuals of 2018 by 38 %, for the BMTF PMO, due to the new assigned role as a Central Settlement Entity, from the entry into force of the TCDA Agreement.
- › The 2019 budget for the JSC PMO cost has been increased by 44 %, due to the new requirements of the TCDA Agreement.
- › The total increase of the budgeted TSOs operating costs in 2019, comparing to the 2018 actuals is 135 k€.

The sharing key used for TSOs regional costs of operating the MRC costs for the period from 1st January until 31st December 2018 is the following:

Member State	Parties	Share per party 1 Jan'18 – 18 Jun'18	Share per party 19 June '18 – 30 Sep '18	Share per party 1 Oct '18 – 31 Dec '18
Austria	APG	2.614 %	2.576 %	2.523 %
Austria	EPEX	0.000 %	0.000 %	0.000 %
Austria	EXAA	0.000 %	0.000 %	0.000 %
Austria	EMCO	0.000 %	0.000 %	0.000 %
Austria		2.614 %	2.576 %	2.523 %
Belgium	ELIA	2.894 %	2.853 %	2.799 %
Belgium	EPEX	0.000 %	0.000 %	0.000 %
Belgium	EMCO	0.000 %	0.000 %	0.000 %
Belgium		2.894 %	2.853 %	2.799 %
Bulgaria	ESO			
Bulgaria	IBEX			
Bulgaria		0.000 %	0.000 %	0.000 %
Croatia	HOPS		0.960 %	0.930 %
Croatia	Cropex		0.000 %	0.000 %
Croatia			0.960 %	0.930 %
Czech Republic	CEPS	0.000 %	0.000 %	0.000 %
Czech Republic	OTE	0.000 %	0.000 %	0.000 %
Czech Republic		0.000 %	0.000 %	0.000 %

Member State	Parties	Share per party 1 Jan'18 – 18 Jun'18	Share per party 19 June '18 – 30 Sep '18	Share per party 1 Oct '18 – 31 Dec '18
Denmark	ELSO	1.937%	1.904%	1.858%
Denmark	EMCO	0.000%	0.000%	0.000%
Denmark	EPEX	0.000%	0.000%	0.000%
Denmark		1.937%	1.904%	1.858%
Estonia	Elering	0.949%	0.920%	0.889%
Estonia	EMCO	0.000%	0.000%	0.000%
Estonia	EPEX	0.000%	0.000%	0.000%
Estonia		0.949%	0.920%	0.889%
Finland	Fingrid	3.594%	3.552%	3.483%
Finland	EMCO	0.000%	0.000%	0.000%
Finland	EPEX	0.000%	0.000%	0.000%
Finland		3.594%	3.552%	3.483%
France	RTE	13.191%	13.088%	12.905%
France	EPEX	0.000%	0.000%	0.000%
France	EMCO	0.000%	0.000%	0.000%
France		13.191%	13.088%	12.905%
Germany	50Hertz	3.737%	3.711%	3.657%
Germany	Amprion	5.458%	5.420%	5.341%
Germany	TenneT DE	4.840%	4.807%	4.736%
Germany	Transnet	2.984%	2.963%	2.919%
Germany	EPEX	0.000%	0.000%	0.000%
Germany	EMCO	0.000%	0.000%	0.000%
Germany	EXAA	0.000%	0.000%	0.000%
Germany		17.020%	16.901%	16.654%
Greece	ADMIE			
Greece	Henex			
Greece				
Hungary	Mavir	0.000%	0.000%	0.000%
Hungary	HUPX	0.000%	0.000%	0.000%
Hungary		0.000%	0.000%	0.000%

Member State	Parties	Share per party 1 Jan'18 – 18 Jun'18	Share per party 19 June '18 – 30 Sep '18	Share per party 1 Oct '18 – 31 Dec '18
Ireland	EirGrid (TSO)			1.607%
Ireland	EirGrid (NEMO)			0.000%
Ireland	EMCO			0.000%
Ireland				1.607%
Italy	Terna	11.468%	11.388%	11.200%
Italy	GME	0.000%	0.000%	0.000%
Italy		11.468%	11.388%	11.200%
Latvia	AST	0.897%	0.869%	0.839%
Latvia	EMCO	0.000%	0.000%	0.000%
Latvia	EPEX	0.000%	0.000%	0.000%
Latvia		0.897%	0.869%	0.839%
Lithuania	Litgrid	1.024%	0.995%	0.963%
Lithuania	EMCO	0.000%	0.000%	0.000%
Lithuania	EPEX	0.000%	0.000%	0.000%
Lithuania		1.024%	0.995%	0.963%
Luxembourg	CREOS			
Luxembourg	EPEX			
Luxembourg	EMCO			
Luxembourg				
Netherlands	TenneT BV	3.732%	3.686%	3.621%
Netherlands	EPEX	0.000%	0.000%	0.000%
Netherlands	EMCO	0.000%	0.000%	0.000%
Netherlands		3.732%	3.686%	3.621%
Poland	PSE	3.905%	3.856%	3.794%
Poland	TGE	0.000%	0.000%	0.000%
Poland	EPEX	0.000%	0.000%	0.000%
Poland	EMCO	0.000%	0.000%	0.000%
Poland		3.905%	3.856%	3.794%
Portugal	REN	2.735%	2.698%	2.638%
Portugal	OMIE	0.000%	0.000%	0.000%
Portugal		2.735%	2.698%	2.638%

Member State	Parties	Share per party 1 Jan'18 – 18 Jun'18	Share per party 19 June '18 – 30 Sep '18	Share per party 1 Oct '18 – 31 Dec '18
Romania	Transelectrica	0.000 %	0.000 %	0.000 %
Romania	OPCOM	0.000 %	0.000 %	0.000 %
Romania		0.000 %	0.000 %	0.000 %
Slovakia	SEPS	0.000 %	0.000 %	0.000 %
Slovakia	OKTE	0.000 %	0.000 %	0.000 %
Slovakia		0.000 %	0.000 %	0.000 %
Slovenia	ELES	1.055 %	1.025 %	0.994 %
Slovenia	BSP	0.000 %	0.000 %	0.000 %
Slovenia		1.055 %	1.025 %	0.994 %
Spain	REE	9.705 %	9.634 %	9.470 %
Spain	OMIE	0.000 %	0.000 %	0.000 %
Spain		9.705 %	9.634 %	9.470 %
Sweden	Affärsverket svenska kraftnät	6.432 %	6.379 %	6.259 %
Sweden	EMCO	0.000 %	0.000 %	0.000 %
Sweden	EPEX	0.000 %	0.000 %	0.000 %
Sweden		6.432 %	6.379 %	6.259 %
UK (including Northern Ireland whose consumption is 9 TWh)	National Grid	5.367 %	5.326 %	5.156 %
UK (including Northern Ireland whose consumption is 9 TWh)	Britned	5.367 %	5.326 %	5.156 %
UK (including Northern Ireland whose consumption is 9 TWh)	Nemo Link			
UK (including Northern Ireland whose consumption is 9 TWh)	EPEX	0.000 %	0.000 %	0.000 %
UK (including Northern Ireland whose consumption is 9 TWh)	EMCO	0.000 %	0.000 %	0.000 %
UK (including Northern Ireland whose consumption is 9 TWh)	SONI (TSO)			0.315 %
UK (including Northern Ireland whose consumption is 9 TWh)	SONI (NEMO)			0.000 %
UK (including Northern Ireland whose consumption is 9 TWh)		10.733 %	10.652 %	10.627 %

Member State	Parties	Share per party 1 Jan'18 – 18 Jun'18	Share per party 19 June '18 – 30 Sep '18	Share per party 1 Oct '18 – 31 Dec '18
Norway	Statnett	6.115 %	6.064 %	5.947 %
Norway	EPEX	0.000 %	0.000 %	0.000 %
Norway	EMCO	0.000 %	0.000 %	0.000 %
Norway		6.115 %	6.064 %	5.947 %
Grand Total		100.000 %	100.000 %	100.000 %
Count MS				

The joint TSOs and NEMOs costs of operating the MRC consist of:

Details	2019 forecast
Legal TF	70 000.00 €
Secretarial Services OPSCOM	45 000.00 €
Total SUM	115 000.00 €

- › The 2019 budget for the Joint operating costs of MRC have been increased by 81 k€ comparing to the 2018 actuals, mainly due to the 60 k€ increase of the Legal support for the new DAOA Agreement

6 GR-BG border for Day Ahead Market Coupling

The aim of the GR-BG project is to include BG-GR border to the IBWT project.

The default CACM sharing key applies for this project.

6.1 There were no costs incurred for this project in 2018.

6.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	18 000.00 €	0.00 €

7 4MMC - regional market coupling for DA (CZ-SK-HU-RO)

4MMC is day-ahead NTC market coupling between Czech Republic, Slovakia, Hungary and Romania launched in 2014, project operates based on PCR solution and uses centralized TSO system "so called" the mTMF¹ TSO module which enables efficient management of pre- and post-coupling processes.

A Specific regional sharing key approved by the competent national authorities of each Member States in the region applies for this project.

7.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2017 (from 14th February 2017):

Costs of establishing and amending from 14 th February 2017			Costs of operating
Regional costs	NEMOs costs*	0.00 €	0.00 €
	TSOs costs	0.00 €	26 550.00 € without VAT**
	NEMOs and TSOs costs*	0.00 €	0.00 €

*According to agreed cost sharing approach all costs are recognised as national costs – no joint NEMO and TSO costs and no NEMO only costs of 4M MC

**Since these regional activities are not performed on CCR level as defined by decision of ACER 06/2016, we do consider that provisions of article 78 CACM for such solutions are not applicable

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of operating	
Details	Total costs from 14 th February 2017
Administrative and hosting fees	26 550.00 € without VAT
Total SUM	26 550.00 € without VAT

› Daily operation of the mTMF TSO module

7.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs*	0.00 €	0.00 €
	TSOs costs	0.00 €	26 550.00 € without VAT**
	NEMOs and TSOs costs*	0.00 €	0.00 €

*According to agreed cost sharing approach all costs are recognised as national costs – no joint NEMO and TSO costs and no NEMO only costs of 4M MC

**Since these regional activities are not performed on CCR level as defined by decision of ACER 06/2016, we do consider that provisions of article 78 CACM for such solutions are not applicable

The budgeted TSOs costs of establishing and amending and costs of operating consist of:

Budgeted TSOs costs of operating	
Details	Total costs for 2019
Administrative and hosting fees	26 550.00 €
Total SUM	26 550.00 € without VAT

› Daily operation of the mTMF TSO module

1 Modified TSO Management Function – centralized IT solution used within 4MMC to perform and support various pre- and post-coupling processes.

8 SEM-GB regional project

The SEM-GB Regional Framework has been established to implement single day-ahead market coupling within the Ireland-UK (IU) region in compliance with Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM) and an interim intraday solution with implicit auctions

A Specific regional sharing key approved by the competent national authorities of each Member States in the region on the 6/14/2017 applies in this project.

8.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending		2018 Costs of operating	
Regional costs	NEMOs costs	0.00 €		0.00 €	
	TSOs costs	0.00 €		0.00 €	
	NEMOs and TSOs costs	301 504.00 €		1 875.00 €	

The joint TSOs and NEMOs costs of establishing and amending consist of:

Details	Total costs for 2018
PMO	241 038.60 €
Testing	60 466.00 €
Total SUM	301 504.60 €

- › The external support for PMO services as of January 2018 has initially been contracted by EirGrid and now EPEX SPOT on behalf of all project partners.

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Details	Total costs for 2018
Administrative fees PMO costs	1 875.00 €
Total SUM	1 875.00 €

8.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	5 000.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

Details	Total costs for 2019
PMO	5 000.00 €
Total SUM	5 000.00 €

9 Nordic MNA

This project concerns the regional costs for amending and establishing the Nordic day-ahead solutions to become MNA compatible.

A specific regional sharing key applies for this project.

9.1 Actual costs for 2018

Following table provides overview of total actual common regional costs in 2018:

Costs of establishing and amending from 14th February 2017			Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	359 053.00 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of establishing and amending	
Details	Total costs for 2018
PMO costs	272 953.00 €
Other administrative costs	19 100.00 €
System development costs	67 000.00 €
Total SUM	359 053.00 €

- › The PMO cost in the above table encompass the cost of PMO services needed to facilitate the execution of all tasks to complete the objectives of the Nordic MNA project.
- › The other administrative costs cover the Project Place licenses for the Nordic MNA project.
- › The system development costs encompass the development costs of an IT solution for data exchange of the results of the single day-ahead coupling.

9.2 Forecast for 2019

Following table provides overview of forecast of common regional costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	753 000.00 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

Budgeted TSOs costs of establishing and amending	
Details	Total costs for 2019
PMO costs	460 000.00 €
Other administrative costs	25 000.00 €
System development costs	268 000.00 €
Total SUM	753 000.00 €

- › The PMO cost in the above table encompass the cost of PMO services needed to facilitate the execution of all tasks to complete the objectives of the Nordic MNA project.
- › The other administrative costs cover the Project Place licenses for the Nordic MNA project.
- › The system development costs encompass the development costs of an IT solution for data exchange of the results of the single day-ahead coupling.

10 Baltic MNA

No regional costs in 2018, nor budgeted costs in 2019 for this project.

11 DE-AT-PL-4M MC Project (Interim Coupling)

The project DE-AT-PL-4M MC Project ('Interim Coupling') aims to couple the 4M MC and Poland and the Multi-Regional Coupling (MRC) by introducing NTC-based implicit allocation on 6 borders (PL-DE, PL-CZ, PL-SK, CZ-DE, CZ-AT, HU-AT) and implement Single Day-Ahead Coupling (SDAC). The project intends to be a stepwise transition on the afore-mentioned borders from current NTC-based explicit allocation towards the flow-based implicit allocation which is to be implemented in the framework of the Core Flow-Based Market Coupling Project as target solution required by regulation.

A Specific regional sharing key is used for the project. This Sharing key was approved by the competent national authorities of each Member States in the region, on the 6th April 2019.

11.1 Actual costs for 2018

As the project has been officially initiated at the request of the NRAs only on 21st December 2018 and it is still at early stage (High-Level Market Design was only finalized in May 2019) there were no actual costs in 2018 and for the time being there are no agreed joint budgeted costs for 2019. The sharing keys discussed and proposed by concerned Parties (different for TSOs costs and joint NEMOs and TSOs costs) were accepted by the relevant NRAs on 4th June 2019.

11.2 Forecast for 2019

By the time of this report, the final budget of the project for 2019 is still under development.

REGIONAL PROJECTS OF THE INTRADAY TIMEFRAME

12 LIP 1 – Nordic

To implement the XBID solution, Local Implementation Projects (LIPs) were set up. A LIP consists of one or more borders, one or more TSOs and one or more NEMOs. A LIP's main tasks were adaptation of local arrangements (i.e. procedures, shipping, contracts), IT system adjustments, secure equal treatment between NEMOs and implicit/explicit access and ensuring readiness for the participation in the XBID LIP testing. The LIPs were monitored via the XBID Steering Committee where individual LIPs' progress is reported to. Further each LIP has set up a formal governance structure within the LIP (i.e. project manager, Steering Committee, etc.).

LIP 1, also known as NordLIP, was one of the LIPs that went live in the first wave of XBID, and consisted of the NEMOs Nord Pool and EPEX, and the TSOs Svenska Kraftnät, Fingrid, Statnett, and Energinet.

This project has a specific regional sharing key approved by the competent national authorities of each Member States in the region. The sharing key used is an equal split between the Nordic TSOs (Statnett, Fingrid, Svenska Kraftnät and Energinet) as the project started before CACM was fully implemented.

12.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	15 094.00 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of PMO costs. Additional information: Only TSOs incurred the costs of PMO services for XBID LIP 1.

12.2 Forecasts for 2019

There are no budgeted costs for 2019 as the project went live in 2018.

13 LIP 2 – Kontek

The main Objectives of the project is the “Go-live” of pan-European ID Market Coupling via XBID of the HVDC interconnector Kontek (DK2-DE). The involved parties are EnDK, 50Hz, Nord Pool, EPEX. The LIP 2 “closed” as of September 2018 (Go-live of relevant border & end of XBID roll-back period).

This project has a specific regional sharing key.

13.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	11 897.95 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of PMO costs, An external PMO was contracted to coordinate all stages of “go-live” preparation for LIP 2 (e.g. Procedures, Testing). All other tasks of LIP2 were done by the relevant parties themselves.

13.2 Forecasts for 2019

There is no budgeted TSOs costs for 2019 as the project closed in September 2018.

14 LIP 3 – DK1/DE, DE/NL

To implement the XBID solution, Local Implementation Projects (LIPs) were setup. A LIP covers one or more borders, one or more TSOs and one or more PXs from both sides of the involved border(s). Sia Partners delivered PM and PMO services supporting working group(s) or task force(s) with regards to the LIP 3 that covered the DE/DK1 and DE/NL borders. The involved parties are EnDK, TenneT NL& DE, Amprion, EPEX, APX/Belpex, and Nord Pool.

Within LIP3 the services were provided until XBID Go-Live in June 2018.

This project has a specific regional sharing key (each of the four TSO parties 25%).

14.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	48 685.00 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of Project Manager and PMO costs. The external support for PM and PMO services was selected based on a competitive tender.

14.2 Forecasts for 2019

There is no budgeted TSOs costs for 2019 as the project closed in June 2018.

15 LIP 4 – NorNed

The purpose of this project was to enable NorNed being a part of the XBID go live in June 2018. The project went smoothly and there were no external resources like PMO used throughout the process. Further, there were no joint project organization between TSOs and NEMOs that provided any costs for the project. It was only local costs

for TSOs and NEMOs. The involved parties are Statnett, TenneT NL, APX/Belpex and Nord Pool.

No regional costs in 2018, nor budgeted costs in 2019 for this project.

16 LIP 5 – FR/DE, CH/DE, CH/FR, DE/AT

The main objective of the project was to integrate LIP5 borders into XBID which was successfully achieved in June 2018. Since then the project has practically ceased to exist. There were no costs to be shared because every party bore their own costs and decided not to use providers that would lead to common regional costs. The

involved parties are: Amprion, TransnetBW, APG, RTE, Swissgrid, EPEX, Nord Pool and TenneT DE.

No regional costs in 2018, nor budgeted costs in 2019 for this project.

17 LIP 6 – NL/BE

LIP 6 was the Local Implementation Project for SIDC Continuous market coupling on the Belgian–Dutch border with regards to the implementation of this border in the XBID system and expected to be ready in the First wave of XBID with a go live on 13th June 2018. Hence, the project stopped as from this moment of the go-live. The involved parties are: Elia, TenneT NL, APX/Belpex and Nord Pool.

A Specific regional sharing key is used for that project: equal share between TSOs.

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of establishing and amending	
Details	Total costs for 2018
PMO for project support	21 274.50 €
Rollback costs	29 166.67 €
Total SUM	50 441.17 €

17.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	50 441.17 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

- › PMO costs were used for the project support (e.g. calls/meetings, coordination between parties, organization of calls/meetings, attendance, drafting agenda-minutes, presentation of LIP 6 activities at XBID level ...)
- › Synergies on PMO services were realized with LIP 8 to for cost efficiency
- › Rollback costs related to the rollback (of existing ID system on BE-NL border) service and tools to be available in the first period after XBID Go-Live.

17.2 Forecasts for 2019

Since the LIP 6 project stopped after the go live of XBID in June 2018, there are no costs foreseen anymore in 2019.

18 LIP 8 – FR/BE

LIP 8 was the Local Implementation Project for SIDC Continuous market coupling on the Belgian-French border with regards to the implementation of this border in the XBID system and expected to be ready in the First wave of XBID with a go live on 13th June 2018. Hence, the project stopped as from this moment of the go-live. The involved parties are: RTE, Elia, APX/Belpex, EPEX and Nord Pool.

A specific regional sharing key is used for this project. It is the equal share between TSOs.

18.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	45 628.67 €	0.00 €
	NEMOs and TSOs costs	0.00 €	0.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of establishing and amending	
Details	Total costs for 2018
PMO for project support	21 274.50 €
Rollback costs	24 354.17 €
Total SUM	45 628.67 €

- › PMO costs were used for the project support (e.g. calls/meetings, coordination between parties, organization of calls/meetings, attendance, drafting agenda-minutes, presentation of LIP 8 activities at XBID level ...)
- › Synergies on PMO services were realized with LIP 6 to for cost efficiency
- › Rollback costs related to the rollback (of existing ID system on BE-FR border) service and tools to be available in the first period after XBID Go-Live.

18.2 Forecasts for 2019

Since the LIP 8 project stopped after the go live of XBID in June 2018, there are no costs foreseen anymore in 2019.

19 LIP 9/12 – FR/ES, ES-PT

The objective of the project is the integration of SWE region in the XBID go-live. The involved parties are RTE, EPEX, Nord Pool, OMIE, REE and REN.

A Specific regional sharing key is used agreed at project level.

19.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending	2018 Costs of operating
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	8 791.24 €	0.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of PMO services. Costs of LIP9&12 during 2018 are limited to the activities performed by the PMO in the coordination of the project until the Go-Live of XBID (12th June 2018).

19.2 Forecasts for 2019

With the successful integration of SWE Region in XBID last 12th June 2018 the project was closed, and no further activities are foreseen at the time of the drafting of this report.

20 LIP 13 – BaltLIP

To implement the XBID solution Local Implementation Projects (LIPs) were set up. A LIP consists of one or more borders, one or more TSOs and one or more NEMOs. A LIP's main tasks were adaptation of local arrangements (i.e. procedures, shipping, contracts), IT system adjustments, secure equal treatment between NEMOs and implicit/explicit access and ensuring readiness for the participation in the XBID LIP testing. The LIPs were monitored via the XBID Steering Committee where individual LIPs' progress is reported to. Further each LIP has set up a formal governance structure within the LIP (i.e. project manager, Steering Committee, etc.).

LIP 13, also known as BaltLIP, was one of the LIPs that went live in the first wave of XBID, and consisted of the NEMO Nord Pool and the TSOs Svenska Kraftnät, AST, Litgrid, Fingrid and Elering.

The following specific sharing key was used for splitting LIP 13 PMO costs among the project parties:

- 2/8 divided between FG/SvK
- 4/8 divided between Baltic TSOs:
 - › 1/6 equally between Baltic TSOs
 - › 5/6 proportionally based on the consumption
- 2/8 paid by Nord Pool

20.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

		2018 Costs of establishing and amending		2018 Costs of operating	
Regional costs	NEMOs costs	1 230.00 €		0.00 €	
	TSOs costs	4 112.00 €		0.00 €	
	NEMOs and TSOs costs	5 342.00 €		0.00 €	

The total cost of 5 342.00 € is the sum of NEMOs' and TSOs' shares for the LIP 13 costs.

The NEMOs costs of establishing and amending and costs of operating consist of:

NEMOs costs of establishing and amending	
Details	Total costs for 2018
XBID LIP 13 PMO	1 230.00 €
Total SUM	1 230.00 €

The TSOs costs of establishing and amending and costs of operating consist of:

TSOs costs of establishing and amending	
Details	Total costs for 2018
XBID LIP 13 PMO	4 112.00 €
Total SUM	4 112.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Details	Total costs for 2018
XBID LIP 13 PMO	5 342.00 €
Total SUM	5 342.00 €

20.2 Forecasts for 2019

There are no budgeted costs for 2019 as the project went live in 2018.

21 LIP 14 – XBID + CRIDA

Involved countries:

Italy, Slovenia, Austria, France

The project is temporarily stopped, there is no regional costs in 2018, nor budgeted costs for 2019.

LIP 14 project covers the following borders:

AT-IT, IT-FR, IT-SI and IT-GR

Involved parties :

TSOs: Terna - Rete Elettrica Nazionale S.p.A., Austrian Power Grid AG, RTE Réseau de Transport d'Electricité, ELES, Ltd., Electricity Transmission System Operator and, Independent Power Transmission Operator S.A.

NEMOs:

BSP Energy Exchange LL C, EPEX Spot SE, EXAA Abwicklungsstelle für Energieprodukte AG, Gestore dei Mercati Energetici S.p.A., Hellenic Energy Exchange S.A. and European Market Coupling Operator AS.

The expected go live is included in the third wave of the Cross-Border Intraday Project (SIDC). So far no costs have been incurred for this project as the PMO activity is performed on a rotational and voluntary basis.

22 LIP 15

LIP 15 is one of the implementation projects of pan-European intra-day coupling project, XBID. NEMOs and TSOs from ten European countries (Austria, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Poland, Romania, Slovenia), BSP, Cropex, EPEX, HUPX, IBEX, Nord Pool, OPCOM, OTE, 50Hertz, APG, CEPS, ELES, ESO, HOPS, MAVIR, PSE, Transelectrica, TTG are active within LIP 15 project.

The default CACM sharing key applies for this project.

22.1 Actual costs for 2018

No incurred regional costs in 2018

22.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	15 694.15 €	0.00 €

The budgeted joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Budgeted joint TSOs and NEMOs costs of establishing and amending	
PMO support for testing	15 694.15 €
Total SUM	15 694.15 €

Costs of the PMO support for the LIP Testing, originally budgeted for 2018, however invoiced only in 2019. There are no additional joint TSOs and NEMOs costs foreseen or budgeted in 2019.

23 LIP 16

This project is the set to implement the XBID Solution for Lithuania, Poland and Sweden

Specific regional sharing key, the sharing key was reported by individual parties to their respective NRAs.

23.1 Actual costs for 2018

Following table provides overview of total actual common costs in 2018:

2018 Costs of establishing and amending		
Regional costs	NEMOs and TSOs costs	21 000.90 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2018
PMO	21 000.90 €
Total SUM	21 000.90 €

- › The external costs were included at costs without any surplus or commercial benefit for the contracting party.
- › The external support for PMO services as of October 2018 was selected based on a competitive tender finalized September 2018. The project started October 2018.

24 GR-BG border for Intra Day

Involved parties:

There are no regional costs in 2018, nor budgeted costs for 2019.

23.2 Forecasts for 2019

Following table provides overview of forecast of common costs for 2019:

Budgeted costs of establishing and amending for 2019			Budgeted costs of operating for 2019
Regional costs	NEMOs costs	0.00 €	0.00 €
	TSOs costs	0.00 €	0.00 €
	NEMOs and TSOs costs	53 725.00 €	0.00 €

The joint TSOs and NEMOs costs of establishing and amending and costs of operating consist of:

Budgeted joint TSOs and NEMOs costs of establishing and amending	
Details	Total costs for 2019
PMO	53 725.00 €
Total SUM	53 725.00 €

- › Costs of the PMO support budgeted until go-live of LIP 16. There are no additional joint TSOs and NEMOs costs foreseen or budgeted in 2019.

Chapter C:

National costs resulting from activities of the NEMOs or NEMOs and TSOs in that Member State

NEMOs and TSOs reserve the right to submit directly to the relevant regulatory authority National costs resulting from activities of the NEMOs in that Member State, that are classified as sensitive commercial information.

Glossary

4M MC	4M Market Coupling between Czech Republic, Slovakia, Hungary and Romania	ESO	Electroenergien Systemen Operator EAD
50Hertz	50Hertz Transmission GmbH	EMS	Akcionarsko društvo Elektromreža Srbije
ACER	Agency for the Cooperation of Energy Regulators	ES	Spain
AL	Albania	EU	European Union
ANIDOA	All NEMOs Intra-Day Operational Agreement	FB	Flow based
ANDOA	All NEMOs Day-Ahead Operational Agreement	FI	Finland
APG	Austrian Power Grid AG	FR	France
AS	XBID Accession Stream	GB	Great Britain
AST	AS Augstsprieguma tīkls	GCT	Gate Closure Time
AT	Austria	GOT	Gate Opening Time
BA	Bosnia and Herzegovina	GR	Greece
BE	Belgium	HOPS	Croatian Transmission System Operator Ltd.
BG	Bulgaria	HR	Croatia
CA	Cooperation Agreement	HU	Hungary
CACM	Capacity Allocation and Congestion Management	HVDC	High Voltage Direct Current
CCP	Central counterparty	IAT	Integration Acceptance Test
CCR	Capacity Calculation Region	IDOA	Intraday Operational Agreement
CGES	Crnogorski elektroprenosni sistem AD	IDSC	Intraday Steering Committee
CH	Switzerland	IFA	Interconnexion France-Angleterre
CEE	Central Eastern Europe	IE	Ireland
CMM	Capacity Management Module	IPTO	Independent Power Transmission Operator S.A.
CWE	Central Western Europe	I-SEM	Integrated Single Electricity Market
CZ	Czech Republic	IT	Italy
DAOA	Day-Ahead Operational Agreement	JAO	Joint Allocation Office
DBAG	Deutsche Börse AG	JSC	Joint Steering Committee
DC	Direct Current	KOSTT	Kosovo Electricity Transmission System and Market Operator
DE	Germany	LIP	Local Implementation Project
DK	Denmark	LU	Luxembourg
EE	Estonia	MC	Market Coupling
Elia	Elia System Operator SA	MAVIR	Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság

MCO	Market Coupling Operator	SDAC	Single Day Ahead Coupling
ME	Montenegro	SE	Sweden
MEPSO	Macedonian Transmission System Operator AD	SEM	Single Electricity Market (covering the Republic of Ireland and Northern Ireland)
MK	Macedonia	SI	Slovenia
MNA	Multiple NEMOs Arrangements	SIDC	Single Intraday Coupling
MRC	Multi Regional Coupling	SEE	South-East Europe
MSD	Market and System Design	SEPS	Slovenská elektrizačná prenosová sústava, a.s.
NEMO	Nominated Electricity Market Operator or Power Exchange	SK	Slovakia
NL	Netherlands	SM	Shipping Module
NO	Norway	SOB	Shared Order Book
NOS	BiH Nezavisni operator sustava u Bosni i Hercegovini	SONI	System Operator for Northern Ireland Ltd
NTC	Net Transmission Capacity	SWE	South Western Europe
NRA	National Regulatory Authority	TCDA	TSO Cooperation Operational Agreement
NWE	North Western Europe	TCID	TSO Co-operation Agreement for Single Intraday Coupling
OPSCOM	Operational Committee	TCOA	TSO Co-operation Agreement for Day-ahead Coupling
OST	OST sh.a – Albanian Transmission System Operator	Terna	Terna - Rete Elettrica Nazionale SpA
PCR	Price Coupling of Regions	TSO	Transmission System Operator
PL	Poland	QA & RM	Quality Assurance & Release Management
PMB	PCR Matcher and Broker IT system	XBID	Cross-Border Intraday
PMO	Project Management Officer	XK	Kosovo
PSE	Polskie Sieci Elektroenergetyczne		
PT	Portugal		
REE	Red Eléctrica de España S.A.U.		
REN	Rede Eléctrica Nacional, S.A.		
RO	Romania		
RS	Serbia		
RTE	Réseau de Transport d'Electricité		

The terms used in this document have the meaning of the definitions included in Article 2 of the CACM regulation.

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