# Annual Report 2018

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Azienda Elettrica Ticinese Annual Report **2018** 

Report of the Board of Directors of the Azienda Elettrica Ticinese to the Grand Council and the Council of State of the Republic and Canton of Ticino

Ladies and Gentlemen, Chairmen, State Councillors, Parliamentary Representatives,

in accordance with the provisions contained in article 6 of the Act of the Azienda elettrica ticinese (LAET), we hereby submit for your approval (article 6, paragraph 4 LAET):

- the report of the Board of Directors for the year 2018;
- the auditors' report;
- the financial statements for the year 2018;
- the proposal for allocation of result.

The english version of the AET 2018 Annual Report is merely a translation: the official version is the italian text.

#### The AET Control centre in Monte Carasso

The 2018 annual report presents a selection of images dedicated to the AET Control centre in Monte Carasso. The Control centre was set up in 1964 to centralise the monitoring and management of AET's grid and power plants. Equipped with state-of-the-art communication and data transmission technology, it has represented a flagship ever since its entry into service.

Created to remotely manage AET's grid and hydroelectric production, over the years the Control centre has developed its expertise by offering services to other plant owners in Ticino. Following the award of the contract to manage the production of the Officine Idroelettriche della Maggia SA (Ofima) and Officine idroelettriche di Blenio SA (Ofible), since 1 January 2018 the Control centre has essentially doubled the number of supervised plants. Today, more than 95% of cantonal hydroelectric production is managed by AET in Monte Carasso.

On the cover: the AET Control centre and administrative headquarters in Monte Carasso.

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The control room represents the heart of the Control centre and was completely renovated when AET assumed the management of the Ofima and Ofible plants. Two 24-hour workstations allow the Control centre to carry out a wide range of tasks.



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## 2018 in summary

## Key figures

	2018	2017	2016 <sup>2</sup>	2015 <sup>1</sup>	2014
In CHF million					
Operating income	871	872	824	1,033	1,212
Operating result	-15	-19	-27	38	50
Result for the year	-2	-13	-31	-44	13
Equity	323	328	342	420	454
Equity in % of balance sheet total	41.8%	40.3%	41.9%	38.9%	39.5%
Non-current assets	506	527	510	729	771
Balance sheet total	775	813	816	1,079	1,149
Distribution of dividends to the State	-	_	_	_	5
Interest on capital, due to the State	3	3	3	3	3
Employees of the Group (full time equivalent)	265.3	252.9	263.6	451.9	434.4

	2018	2017	2016	2015	2014
In GWh					
Production AET Group	955	814	872	1,020	983
Production participations	1,550	1,451	1,310	2,004	1,327

<sup>1</sup> 2015 figures restated <sup>2</sup> 2016 figures restated

In 2016 the participation Società Elettrica Sopracenerina SA (SES) has been deconsolidated following the decrease of AET's shareholding from 53% to 30%.



#### Management of AET

From top left: Edy Losa, Flavio Kurzo, Roberto Pronini, Fiorenzo Scerpella, Claudio Nauer, Giorgio Tognola.

Photo: Nicola Demaldi

## Company officers

#### **Board of Directors**

Leonardi Giovanni, *Chairman* Lombardi Sandro, *Vice Chairman* Beffa Floriano Cauzza Dino Cereghetti Claudio Ogna Ronald Passoni Alberto

#### **Group** auditor

KPMG SA, Lugano

#### Management

Pronini Roberto, *CEO* Nauer Claudio, *Co-CEO* Kurzo Flavio, *Head of finance* Losa Edy, *Head of energy production* Scerpella Fiorenzo, *Head of grid* Tognola Giorgio, *Head of energy trade* 



The computerised control systems in the Control centre manage the starting, stopping and regulation of each production group present in the hydroelectric power plants of: AET, Ofima, Ofible, Verzasca SA, SES and AMB.

Photo: Atelier Mattei ©Verzasca SA

# Report of the Board of Directors

The Control centre keeps under surveillance the levels of all reservoirs in the monitored systems in real time, as well as managing water reserves.

## Introduction by the Chairman

#### A new cycle

2018 marked the 60<sup>th</sup> anniversary of the birth of AET. On 25 June 1958 the Grand Council of the Canton Ticino voted to set up the cantonal electricity company, and a few months later the decision was made to buy back the Biaschina power station. The anniversary represented an opportunity to recall the so-called "spirit of Biaschina", that is to say the foresight that prompted the stakeholders of the time to fight for the public management of cantonal waters. The same desire to make use of our local natural resources on behalf of and in favour of the Canton has also guided the refocussing of the Company's strategy over the last four years.

Over the course of 2018, wholesale electricity prices in Europe continued the growth trend observed from the second half of 2016 onwards, driven by increases in coal and oil prices, the rising cost of CO<sub>2</sub> emission certificates and changes in the balance between supply and demand. The early sale of parts of its own production at previous years' prices has prevented AET from taking full advantage of this trend, and the year once again ended with a loss. Nevertheless, for the first time in four years, the outlook for the future looks bright: the return to black figures appears imminent. The new corporate strategy, based on cantonal hydroelectric production, and a financial management focussed on maintaining financial stability, allow the Company to look at the coming challenges with renewed confidence.

As we have said many times, the future of the sector and the companies that comprise it depends to a large extent on the energy policies adopted in Switzerland, and particularly in Europe. The effects of the subsidies for "new renewables" on the development of wholesale electricity prices are the clearest illustration of this causal link. After years of difficulty, governments have finally introduced an initial set of corrective measures to restore the balance between supply and demand and to stabilise the price formation mechanism. The decision to shut down nuclear power plants by 2022 and the announcement of a plan for the phasing-out of coal production in Germany will have a major impact on the rise of future prices.

The first measures related to the approval of the 2050 Energy Strategy were introduced in Switzerland in 2018. These include the "market premium", created in an effort to support hydropower production in the most critical phase of the market. AET has been able to benefit from this measure, which has made it possible to mitigate the effects of the financial year's loss. However, we are only at the beginning of a process of legislative change that will have disruptive effects on the whole sector, ranging from the complete opening of the national market to agreements on energy exchange with the European Union, not forgetting the definition of new water fees and the topic of increasing minimum flows. In the coming years, the federal and cantonal politicians will be called upon to express their opinions on issues which will redesign our country's market model and redefine its concept of security of supply. We hope that the "spirit of Biaschina" will once again prevail in Ticino and that the sector will respond to the challenges it faces in a sound manner, with the aim of preserving the added value represented by our water resources.

AET is playing its part and in the last four years has redefined its strategy, placing the focus of its investments back on local renewable production. The new Ritom power plant, construction of which started in the summer of 2018, and the St. Gotthard wind farm, which was given the final go-ahead in the autumn, are the projects that best represent this new course. The previous year also saw the strengthening of relations with Ofima and Ofible, whose production management through its Monte Carasso Control centre has been entrusted to AET. This is an important step in strengthening the cantonal hydroelectric power sector in view of its return into public ownership.

At the same time, we are increasingly committed to improving the quality of services offered to customers, in particular distributors, and to adapting products to the evolution of a market that is becoming increasingly complex and demanding. This strategy has paid off and allowed AET to increase energy sales internally in Switzerland and to establish itself in the field of maintenance as a privileged partner of the most important owners of network plants in Ticino.

The progress made would not have been possible without the support of the Company's employees, who have worked alongside the Management with commitment and dedication to come through a difficult period of political and economic uncertainty. To them, and to all the customers who have continued to renew their trust in AET, we would like to express our heartfelt thanks. We would also like to highlight the constructive climate of dialogue established between the Board of Directors and the Council of State, which has allowed the corporate strategy to be realigned in the interests of the entire Canton.

The natural resources present in the Canton of Ticino, our professional skills and ability to adapt to changes in technology and the market have helped AET to reach the milestone of a healthy 60 years of activity and will allow us to look forward to the years to come with confidence.



Giovanni Leonardi Chairman





The daily production plan for AET's power plants is defined by energy traders on the basis of supply commitments and volumes traded on the market.

## Management report

#### The long wave of the price crisis

AET's 2018 financial year closed with a group result of CHF –1.9 million, while the operating result stood at CHF –14.9 million (2017: CHF –18.8 million). The result was supported by a number of non-recurring factors, including a refund from Swissgrid, the recognition of the market premium and the partial release of the impairment on the power purchase agreement with EDF.

The effects of the sudden collapse in wholesale electricity prices between 2012 and 2015 once again had a negative impact on the year's performance. The recovery, which started at the end of 2016 has kept on, and an improvement of the results can be envisaged for the next few years. However, the 2018 result was affected by the early sale of large quotas of the yearly production at past prices.

The careful management of resources and the adoption of a strategy aiming to concentrate investments on renewable production in Ticino and to gradually dispose of investments abroad has enabled the Company to safeguard its financial solidity.

#### Production

#### Electricity

Since 1 January 2018, production management for all Ofima and Ofible plants has been taken over by the AET Control centre in Monte Carasso, which now manages 95% of Ticino's hydroelectric production. In order to cope with this new task, AET has hired the staff of the former Ofima and Ofible Control centre.

The good snowfall in winter 2017/18 and rather rainy spring and late autumn brought the hydroelectric production of the AET plants to 940 GWh, in line with the multi-year average and up by 21.6% compared to 2017. On the other hand, production from participations halted at 488 GWh, down 9.5% on the previous year, due to extraordinary maintenance work on the Maggia chain between Peccia and the Verbano power plant, which began during the winter and lasted until May.

AET's share of production at the Lünen plant in Germany was 667 GWh in 2018. This figure was in line with expectations and approximately 20% higher than in 2017. As in previous financial years, market prices were not sufficient to cover the production costs of the power plant. This difference resulted in a higher cost to be borne by AET, of approximately CHF 20 million.

The production from nuclear participations in Switzerland and France stood at 352 GWh, up 9% on the previous year.

#### Thermal energy

TERIS Teleriscaldamento del Bellinzonese SA, a company that is 60% owned by AET, has commissioned several new connections in the city of Bellinzona, especially for residential buildings. During the year, it completed the design of the last stages of its distribution network and started work on expanding the thermal plant, which will house accumulators that will allow a more efficient use of the thermal energy recovered from the waste disposal process.

Calore SA, a joint-venture between AET and Società Elettrica Sopracenerina SA (SES), has completed the upgrade of the Morettina thermal power plant in Locarno, which began at the end of 2017.

The project to build a woodchip plant in the Municipality of Capriasca with an adjoining district heating network in the area around Tesserete is progressing. The project was developed by Capriasca Calore SA, a company owned in equal proportions by AET, the Azienda Elettrica di Massagno (AEM) SA and the Municipality of Capriasca.

Following the rejection of the project to expand the gas distribution network in the Locarno area, Metanord SA, a company in which AET holds a 33% stake, proceeded with a reorganisation that led to a reduction in the workforce. The number of customers connected to the network has increased, but generally higher than average temperatures in the autumn and winter seasons led to a reduction in the volume of gas supplied. Margins per unit sold remain satisfactory and in line with expectations.

#### **Energy trade**

#### Sales

The development of products and services adapted to the evolution of the market and to the multiple demands of customers represents the basis of AET's sales activity. The year 2018 saw a further strengthening in relations with distribution companies throughout Switzerland. All contracts with distributors in Ticino and Moesano have been extended and the volumes of energy sold have increased, especially in German-speaking Switzerland, where a 30% increase was recorded.

The provision of services to distributors in the areas of Guarantees of Origin (GO), labelling and plant certification has developed particularly well. The greater integration of GO sales with energy sales led to an increase in volumes traded, and collaboration with Enerti for the sale of the range of eco-products in Ticino was renewed for a further year.

Finally, with regard to cooperation with cantonal distributors, it is important to underline the positive relationship and the excellent financial results of the participation Società Elettrica Sopracenerina SA (SES).

#### Trading

There has been consolidation in the upward trend of electricity prices on the main European power exchanges. The German power exchange closed the year with a 30% price increase, while in other markets growth was more moderate, ranging from +12% in France to +14% in Switzerland and Italy. The rise was driven by an imbalance between supply and demand at European level, due to high summer consumption driven by the heat and a general decline in wind and hydroelectric production.

The constant upward trend in  $CO_2$ , coal, gas and oil prices has also pushed up electricity future prices in all markets. Towards the end of the year, there was an increase in uncertainty and an increase in the volatility of the entire energy sector, and in particular of  $CO_2$ , largely due to the speculation of a UK exit from the EU without an agreement.

#### Grid

The maintenance and continuous modernisation of the supra-regional distribution network are essential for ensuring a secure and high-quality supply of electricity. In 2018, new projects to modify and expand the grid were launched, including the connection of the new Ritom power plant during construction and following commissioning, as well as that of the wind farm that will be built on the St. Gotthard Pass.

During the year, joint operation began of the 50 kV networks of AXPO in Mesolcina and AET in Sopraceneri. This was an important goal and the result of intense negotiations. It will allow the safety and efficiency of the network to be increased whilst reducing operating costs.

The provision of third-party infrastructure maintenance services continues to increase. In 2018, AET's technicians took on several new tasks relating to the maintenance and modernisation of the primary and secondary parts of Swissgrid's transmission grid.

Finally, AET was awarded the five-year management of Swissgrid's Italian-language telephone hotline and won a tender for the Swiss Federal Railways – SBB to design and supervise works on the cantonal territory over the next four years; a result that confirms AET's role as a privileged partner of Swissgrid and SBB south of the Alps.

#### Strategic projects

#### The new Ritom power plant

Ritom SA, a company owned 75% by SBB and 25% by the Canton of Ticino, has started work on the construction of the new Ritom plant. AET will manage the share of production attributable to the Canton and provide specialist services in the field of connections. The completion of the construction and the commissioning of the new plant are scheduled for 2023.

#### St. Gotthard wind farm

The State Council rejected the appeal against the issue of the building permit for the construction of the St. Gotthard wind farm filed in July 2017 by the Società Ticinese per l'Arte e la Natura (STAN, Ticino Society for Art and Nature). Following the rejection of the latest appeals from STAN, the building permit came into legal force, paving the way for the implementation phase of the project. The construction work will start in the spring of 2019 and be completed in the autumn of 2020.

#### **Campus Formativo Bodio**

The Campus Formativo Bodio (CFB, Bodio Training Campus), an intercompany training centre promoted by AET together with the main industries active in the Tre Valli region, has seen an increase in the number of companies participating in the project. In addition to AET, Imerys Graphite & Carbon Switzerland Ltd, Tenconi SA and Tensol Rail SA, the Azienda Cantonale dei Rifiuti (ACR, Cantonal Waste Company) and Helsinn Healthcare SA will also base their trainees in polymechanics and automation operators on the Bodio campus.

#### **Foreign investments**

In the early 2000s, by virtue of the obligation (in force at the time) to ensure supply in the Canton, AET acquired a number of investments in foreign production companies. In recent years, the strategic reorientation of AET has led to their gradual divestment. At the end of the year, the equity investment in Biogen Chivasso Srl was sold, meaning that only Lünen remains in the portfolio.

#### Conclusion

The upward trend in power prices continued during 2018. By the end of the year, the price had largely returned to its pre-crisis levels in all major European markets. The effects of the recovery will be felt on the Company's results from the 2019 financial year onwards. This delay is due to the fact that significant shares of the 2018 production have been sold in the past years, when market prices were at their lowest.

The price crisis of the period 2012 – 2016 was accompanied by a profound transformation of the energy supply systems in both Europe and Switzerland. The legislative framework is in the process of being reworked, and the arrival of new renewable energies has changed distribution patterns and market dynamics, a process that is still bringing about changes in the habits of producers, distributors and consumers.

AET is not immune to the effects of this evolution and has faced the period of crisis by adapting its strategy to the future needs. The heart of the Company's activity remains cantonal hydroelectric production, which is destined to play a leading role in a supply system based on the growth of renewable and non-programmable production. Investments in recent years have been concentrated in this area, and the opening of the construction site for the new Ritom power station is the best example of the efforts made.

In terms of sales and services, AET has invested in the enhancement of its own specific skills, managing to offer competitive products throughout Switzerland and to win contracts for more and more maintenance work on third-party plants in Ticino.

The work carried out in recent years has made it possible to overcome the period of crisis as the Company prepares the best possible response to market challenges going forward.

## Proposal for allocation of result

The Board of Directors, in accordance with article 18 LAET (respectively article 671, Paragraph 2 of the Swiss Code of Obligations), proposes to allocate the result as follows:

In CHF 1,000	
Result for the year 2018	-8,830
- to the State: 8% interest on the endowment capital	-3,200
– dividend to the State	-
– allocation to the general reserves	-
Allocation to the results carried forward	-12,030

On the basis of the documentation submitted we ask the State Council and the Grand Council, for ratification of:

- the report of the Board of Directors for the year 2018;
- the financial statements for the year 2018;
- the proposal for allocation of result;

granting the discharge to the directors and the management for their activity.

The Control centre acts as a reference point for the safety of canyonists and other users of the rivers downstream of the hydroelectric plants, which coordinate their outflows via a specially dedicated telephone line – Infoline canyoning.

Photo: ©Alex Arnold – Athlet: Laso Schaller



The Control centre controls AET's supra-regional high- and medium-voltage electricity transmission grid. This network covers more than 200 km and includes 22 substations and around 100 transformer rooms. Piottino

## Consolidated financial statements

## Consolidated balance sheet

#### Assets

	31.12.2018	31.12.2017
In CHF 1,000 Notes		
Plants and equipment	249,266	242,306
Land and buildings	52,170	52,246
Tangible fixed assets under construction	29,191	34,482
Tangible fixed assets on lease	144	2,451
Other tangible fixed assets	1,179	1,231
Tangible fixed assets   2	331,950	332,716
Participations in associates 3	77,481	80,537
Long-term securities 4	46,983	47,993
Advances and loans to participations 5	20,135	37,020
Other financial assets	630	6,846
Financial assets	145,229	172,396
Usage rights	8,266	8,023
Energy procurement rights	16,598	8,998
Intangible assets under construction	3,407	3,161
Other intangible assets	1,009	1,254
Intangible assets 6	29,280	21,436
Non-current assets	506,459	526,548
Other short-term assets 7	81,241	65,769
Prepayments and accrued income 8	98,342	99,062
Receivables from goods and services 9	15,066	14,438
Cash and cash equivalents 10	73,601	107,523
Current assets	268,250	286,792
Assets	774,709	813,340

## Liabilities and equity

	31.12.2018	31.12.2017
In CHF 1,000 Notes		
Endowment capital	40,000	40,000
Conversion differences	-6,004	-5,379
Retained earnings	284,041	298,958
Result for the year	-1,877	-12,697
Equity attributable to AET	316,160	320,882
Minority interests	7,316	6,927
Group equity	323,476	327,809
Long-term provisions 11	12,843	9,807
Other long-term liabilities	5,067	3,416
Long-term financial liabilities 12	283,038	294,204
Long-term liabilities	300,948	307,427
Short-term provisions 11	4,508	6,494
Other short-term liabilities 13	43,868	25,560
Short-term financial liabilities 14	6,879	51,425
Accrued liabilities and deferred income 15	84,239	77,126
Payables from goods and services 16	10,791	17,499
Current liabilities	150,285	178,104
Liabilities	451,233	485,531
Liabilities and equity	774,709	813,340

## Consolidated income statement

		2018	2017
In CHF 1,000 N	otes		
Operating income			
Energy income	17	808,019	806,828
Grid income		44,284	47,436
Other operating income	18	18,628	17,324
Operating income	-	870,931	871,588
Operating expenses			
Energy purchases	19	-778,948	-783,454
Grid expenses		-24,036	-27,360
Personnel expenses	20	-29,036	-28,124
Service and material expenses		-7,000	-7,441
Depreciation on tangible fixed assets		-16,743	-16,126
Amortisation on intangible assets		-1,695	-1,898
Other depreciation and amortisation		-1,014	-1,014
Other operating expenses	21	-27,356	-24,952
Operating expenses		-885,828	-890,369
 Operating result	-	- 14,897	- 18,781
Financial result	22	-4,781	-7,301
Result from associates	3	6,622	7,711
Ordinary result		-13,056	-18,371
Non-operating result	-	_	
Extraordinary result	23	12,278	6,175
Result before income taxes		-778	-12,196
Income taxes	-	-710	-179
Group result for the year		-1,488	-12,375
 Minority interests	-	- 389	-322
Result for the year attributable to AET		-1,877	-12,697

## Consolidated cash flow statement

	2018	2017
In CHF 1,000		
Result for the year	-1,877	-12,697
Minority interests to income statement	389	322
Depreciation on tangible fixed assets	16,743	16,126
Amortisation on intangible assets	1,695	1,898
Other depreciation and amortisation	1,014	1,014
Change in provisions	1,310	-19,046
Change in impairments	-3,094	-2,284
Profit / loss from disposal of non-current assets	-2,642	-610
Result from associates	-2,462	-4,734
Other non cash expenses and income	-386	-6,181
Change in receivables, prepayments and accrued income and other short-term assets	–16,337	33,812
Change in payables, accrued liabilities and deferred income and other short-term liabilities	18,749	-22,513
Cash flow from operating activities	13,102	-14,893
	40.442	24242
Outflows for investment in tangible fixed assets	- 18,442	-24,243
Inflows from disposal of tangible fixed assets	21	1,402
Outflows for investment in intangible assets	-1,040	-280
Inflows from disposal of intangible assets		608
Outflows for investment in financial assets	-292	-61
Inflows from disposal of financial assets	17,423	740
Cash flow from investing activities	-2,330	-21,834
Issuance / repayment of short-term financial liabilities	-44,059	-2,006
Issuance / repayment of long-term financial liabilities	2,710	52,662
Payments related to minority shareholders		-44
Interests on capital, due to the State	-3,200	-3,200
Distribution of dividends to the State		i –
Cash flow from financing activities	-44,549	47,412
Cash and cash equivalents at the beginning of the year	107,523	96,183
Cash flow	-33,777	10,685
Conversion differences on cash and cash equivalents	- 145	655
Cash and cash equivalents at the end of the year	73,601	107,523

## Statement of changes in consolidated equity

_							
	Endowment capital	Conversion differences	Retained earnings	Result for the year	Equity attributable to AET	Minority interests	Group Equity
In CHF 1,000							
Equity at 01.01.2017	40,000	-8,702	334,774	-30,964	335,108	6,649	341,757
Allocation of result	_	_	-30,964	30,964	-	-	-
Interests on capital, due to the State	-	_	-3,200	-	-3,200	-	-3,200
Distribution of dividends	-	_		-	-	-	-
Conversion differences	-	3,323	-1,645	-	1,678	-	1,678
Change in consolidation scope	–	_	-9	-	-9	-44	-53
Offset consolidation difference	-	_	2	-	2	-	2
Result for the year 2017	-	_	-	-12,697	-12,697	322	-12,375
Equity at 31.12.2017	40,000	-5,379	298,958	-12,697	320,882	6,927	327,809
Allocation of result	_	_	-12,697	12,697	-	-	-
Interests on capital, due to the State	-	-	-3,200	-	-3,200	-	-3,200
Distribution of dividends	-	-	-	-	-	-	-
Conversion differences	-	-625	980	-	355	-	355
Change in consolidation scope	-	-	-	-	-	-	-
Offset consolidation difference	–	–	–	-	-	-	-
Result for the year 2018	–	–	_	-1,877	-1,877	389	-1,488
Equity at 31.12.2018	40,000	-6,004	284,041	-1,877	316,160	7,316	323,476

## Notes to the consolidated financial statements

#### 1. Accounting principles

The 2018 group financial statements of Azienda Elettrica Ticinese (AET) were prepared in accordance to the Swiss GAAP FER as a whole and approved by the Board of Directors on the 30.04.2019.

#### 1.1. Consolidation principles

#### 1.1.1. Companies consolidated according to the full consolidation method

The following controlled companies, of which AET holds the majority of the voting rights, were consolidated according to the full consolidation method:

Subsidiaries'	Currency	Share capital	Shareholding at 31.12.2018	Shareholding at 31.12.2017
		in 1,000	%	%
AET Italia Srl	EUR	871	100.00	100.00
Bio Elettricità Occimiano Srl (BEO) in liquidazione	EUR	*	*	100.00
Biogen Chivasso Srl	EUR	**	**	100.00
Calore SA	CHF	2,000	65.00	65.00
CEG Srl	EUR	120	100.00	100.00
Lucendro SA	CHF	3,000	100.00	100.00
Parco eolico del San Gottardo SA	CHF	1,000	70.00	70.00
Senco Holding SA	CHF	150	65.00	65.00
Senco Sagl	CHF	220	65.00	65.00
SPE Società per Partecipazioni Energetiche SA	CHF	8,000	100.00	100.00
TERIS Teleriscaldamento del Bellinzonese SA	CHF	10,000	60.00	60.00

<sup>1</sup> Direct and indirect subsidiaries

\* Dissolved on effective date 20.12.2018

\*\* Sold on effective date 06.12.2018

All consolidated companies have closed their financial year on the 31.12.2018.

At the time of acquisition, all acquired net assets are valued at fair value. Any difference between the acquisition price and the value of the acquired net assets is recognised as consolidation difference and immediately compensated with group equity. All transactions between group companies and the related income and expenses were eliminated in the consolidation process. For participations of which the AET Group holds less than 100%, the minority interests in shareholders' equity and in shareholders' result are reported as separate items on the balance sheet and income statement.

#### 1.1.2. Changes in consolidation scope

During 2018 the following changes in consolidation scope of the AET Group have incurred:

- on the 06.12.2018 the Group has sold its participation Biogen Chivasso Srl.
- On the 20.12.2018 the dissolution of the participation Bio Elettricità Occimiano Srl (BEO) has been concluded.

During 2017 the following changes in consolidation scope of the AET Group have incurred:

- on the 02.08.2017 AET Italia Srl has incorporated AET Idronord Srl, which has thus been cancelled.
- On the 13.11.2017 AET Italia Srl has incorporated its parent company AET Italia Holding Srl, which has thus been cancelled.
- On the 12.06.2017 AET acquired 1.10% of the shareholders' capital of Calore SA, on the same date Società Elettrica Sopracenerina SA (SES) executed the same transaction. Starting from this date Calore SA is thus held at 50% by AET and at 50% by Società Elettrica Sopracenerina SA (SES). The total participation of AET sums to 65% (direct and indirect shareholdings).

The key balance sheet positions at the time of disposal or acquisition / subscription of those companies present as follows:

	Biogen Chivasso Srl
	06.12.2018
	EUR 1,000
Non-current assets	3,222
Current assets except cash	5,079
Cash and cash equivalents	169
Assets	8,470
Equity	-3,241
Long-term liabilities	170
Current liabilities	11,541
Liabilities and equity	8,470

### 1.1.3. Companies recognised according to the equity method

The shareholdings in companies over which the AET Group exercises significant influence but no control are recognised in the Group consolidated financial statements according to the equity method (recognition of the share of shareholders' equity and net profit according to the Group accounting principles, with neutral treatment of the conversion differences arising from foreign exchange translation adjustment).

As for the fully consolidated companies, any positive or negative difference between acquisition price and the value of the net assets acquired is immediately compensated with group equity without impact on the result of the period.

Associates <sup>1</sup>	Currency	Share capital	Shareholding at 31.12.2018	Shareholding at 31.12.2017
		in 1,000	%	%
Biomassa Blenio SA	CHF	870	22.41	22.41
Capriasca Calore SA	CHF	210	33.33	33.33
Metanord SA	CHF	18,000	33.33	33.33
Nord Energia SpA	EUR	10,200	40.00	40.00
Quadra Srl in liquidazione	EUR	*	*	50.00
Società Elettrica Sopracenerina SA (SES)	CHF	16,500	30.00	30.00

<sup>1</sup> Direct and indirect associates

\* Dissolved on effective date 23.10.2018

#### 1.1.4. Other participations

The shareholdings in companies over which AET does not exercise significant influence are valued at their cost value adjusted for any impairment.

#### 1.1.5. Conversion of financial statements held in foreign currency

The consolidated financial statements are reported in thousands of Swiss francs (CHF 1,000). The assets and liabilities of foreign subsidiaries are converted at the balance sheet date exchange rates. The income statement figures are converted at the yearly average exchange rates.

Conversion differences are recorded within Group equity, without impact on the result of the year.

Exchange rates applied (EUR / CHF)	2018	2017
Exchange rate on the balance sheet date 31.12	1.1269	1.1702
Average exchange rate	1.1549	1.1116

## **1.2. Accounting principles**

Assets and liabilities are valued with uniform principles. The most significant accounting principles are:

#### 1.2.1. Tangible fixed assets

Tangible fixed assets are valued at their acquisition or construction cost, taking into account the necessary technical-economical depreciation and any necessary impairment. Depreciation is computed on a straight-line basis, considering the technical life of the assets generally accepted within the sector. Land is not depreciated. Tangible fixed assets under construction are reported at construction cost, tangible fixed assets under construction are not depreciated. The following minimum and maximum depreciation periods for each tangible fixed asset category are applied:

Civil works	40 – 80 years
Electromechanical installations	40 – 50 years
Electromechanical equipments	15 – 35 years
Power lines	30 – 55 years
Substations and transformators	20 – 35 years
Buildings	40 – 50 years
Photovoltaic plants	12 – 25 years
Machinery and tools	5 – 25 years
Vehicles	3 – 10 years
IT equipments	3 – 5 years

Renewal or optimisation investments on plants are capitalised if useful life, capacity or performance of the involved plant are significantly improved. Tangible fixed assets acquired through financial leases are capitalised and the corresponding debt reported as financial liability.

#### 1.2.2. Financial assets

Financial assets are reported at their cost value, adjusted for any impairment. For production participations, organised according to the principle of energy withdrawal at generation costs, the investment value exceeding the expected equity value at the end of the useful life of the power plant is depreciated on a straight-line basis according to the useful life of the power plant. Long-term advances in foreign currency are converted at the year-end exchange rates.

#### 1.2.3. Intangible assets

Intangible assets are capitalised at their acquisition cost adjusted by amortisation and any necessary impairment. Amortisation is computed on a straight-line basis, considering the useful life of the asset. Usage right without expiration are amortised on the basis of the technical life of the involved plant (40-80 years).

#### 1.2.4. Energy related and similar certificates

Energy related and similar certificates acquired within the trading portfolio are booked at their market value (mark to market) at the balance sheet date, changes in market value incurred during the financial year are recorded in the income statement within other energy income. Energy related and similar certificates acquired for the purpose of hedging of the generation portfolio of AET are booked at the weighted average purchase price.

#### 1.2.5. Inventories

Inventories include small tools, spare parts and consumables. They are valued at their weighted average purchase price, taking into account any impairment for slow-moving items or obsolescence.

#### 1.2.6. Receivables

Receivables are reported at their face value, taking into account potential losses. Foreign currency receivables are converted at the year-end exchange rates.

#### 1.2.7. Cash and cash equivalents

Cash and cash equivalents are reported at their face value and include cash in hand, post and bank accounts. Balances in foreign currencies are converted at year-end exchange rates.

#### 1.2.8. Impairment

At each balance sheet date, all assets are tested for any impairment indicators. In case of existence of such indicators, the recoverable amount, that is the higher between the net selling price and the value in use, is computed. The value in use is generally computed on the basis of the present value of the expected future cash flows. If necessary, the carrying value is adjusted to the recoverable amount. In case of improvement of the recoverable amount, the carrying value is revaluated at maximum to the value according to the original depreciation scheme.

#### 1.2.9. Provisions

Provisions are deemed to cover probable future disbursements related to legal or implicit obligations arising from past events. Long-term provisions are reported at the present value at the balance sheet day of the expected future disbursement.

#### 1.2.10 Liabilities

All liabilities are reported at their nominal value. Liabilities in foreign currency are converted at year-end exchange rates.

#### 1.2.11. Off-balance-sheet transactions

All contingent liabilities and other non-recognisable commitments existing at the balance sheet date are disclosed in the notes to the consolidated financial statements.

#### 1.2.12. Energy forward sale and purchase transactions

Energy forward sale and purchase transactions, as well as the economic result of energy related transactions with financial instruments, made within the trading portfolio are booked at their market value at the balance sheet date (mark to market). Positive and negative replacement values (the difference between the market price at the balance sheet date and the contract price) are booked within other short-term assets and other short-term liabilities respectively. Changes in market value incurred during the financial year are recorded in the income statement within other energy income.

Energy forward sale and purchase transactions, as well as the economic result of transactions with energy related financial instruments, entered for the purpose of hedging of AET's generation portfolio are recognised in the income statement at delivery.

#### 1.2.13. Revenues

Grid income and other operating income are recognised within the income statement when realised. All revenues are recorded net of price reductions, sale taxes and value added taxes.

#### 1.2.14. Pension funds

Pension benefits for employees hired by Swiss entities are covered by autonomous pension funds. From 01.04.2017 AET's personnel is affiliated to a defined contribution pension scheme (AET has previously been affiliated to a defined benefit pension scheme). The financial implications of the pension schemes in place, regardless of their structure and legal form, are included in the consolidated financial statements. Surplus payments or deficits are determined on the basis of the latest available financial statements of the pension funds involved. Any liabilities (economic obligations) or any assets (economic benefits) in addition to the payment of the regular premiums are recorded in the financial statements. Economic obligations are recognised when pension liabilities are undercovered, generating a future cash outflow for the company in the form of restructuring contributions. Economic benefits consist of future positive cash flow resulting from the use of employer's contribution reserves or other benefits. The personnel employed in Italy is covered for pension according to the ordinary Italian pension scheme. The Group companies operating abroad thus have no obligation or benefit related to the pension schemes, which are not recorded in the financial statements. The yearly contributions, the yearly change in any economic obligations and economic benefits, as well as the change in the employer's contribution reserve, are recorded in the income statements under personnel expenses.

### 1.2.15. Income taxes

Income tax expense includes all current and deferred taxes. Deferred taxes arise from valuation differences between the tax financial statements and the financial statements used for consolidated reporting purposes. The Group parent company AET is not subject to any income tax.

#### 1.2.16. Related party transactions

Transactions with associates include all transactions and debit / credit relationships with companies of which AET holds between 20% and 50% of the voting rights. Transactions with other related parties include transactions with the power generation / procurement companies Officine idroelettriche della Maggia SA, Officine idroelettriche di Blenio SA, Verzasca SA, Ritom SA held by the Canton Ticino as well as Kraftwerke Mattmark AG, AKEB Aktiengesellschaft für Kernenergie-Beteiligungen Luzern and Trianel Kohlekraftwerk Lünen GmbH & Co. KG held by AET for less than 20%. AET offtakes the respective share of energy and pays the related production / procurement costs.

# 2. Tangible fixed assets

	Plants and equipment	Land and buildings	Tangible fixed assets under construction	Tangible fixed assets on lease	Other tangible fixed assets	Total
In CHF 1,000						
Cost value at 01.01.2017	638,370	63,515	32,536	21,535	7,576	763,532
Change in consolidation scope	_	_	_	_	-	-
Reclassification	8,975	373	-21,357	-	264	-11,745
Additions	407	192	23,314	-	330	24,243
Disposals	- 16,909	-220	-11	-	-440	-17,580
Conversion differences	64	3	-	1,972	29	2,068
Cost value at 31.12.2017	630,907	63,863	34,482	23,507	7,759	760,518
Change in consolidation scope	-458	-203	-	-22,425	-10	-23,096
Reclassification	18,149	1,127	-19,949	-	673	-
Additions	7,741	1	14,658	-	70	22,470
Disposals	-47	-633	-	-	-181	-861
Conversion differences	-15	-8	-	-869	-10	-902
Cost value at 31.12.2018	656,277	64,147	29,191	213	8,301	758,129
Accumulated depreciation at 01.01.2017	-400,274	-10,731	-	-21,366	-6,569	-438,940
Change in consolidation scope	-	-	-	-	-	-
Reclassification	10,922	-	-	-	-	10,922
Depreciation	-14,823	-921	-	-17	-365	-16,126
Disposals	15,639	39	-	_	431	16,109
Impairments		_	_	2,284	-	2,284
Conversion differences	-65	-4	-	-1,957	-25	-2,051
Accumulated depreciation at 31.12.2017	-388,601	-11,617	-	-21,056	-6,528	-427,802
Change in consolidation scope	179	20	_	20,638	9	20,846
Reclassification	364			_	-364	
Depreciation	-14,940	-934	-	-440	-429	-16,743
Additions	-4,028	_	-	-	-	-4,028
Disposals	9	553	-	-	180	742
Impairments		_	-	-	-	-
Conversion differences	6	1		789	10	806
Accumulated depreciation at 31.12.2018	-407,011	-11,977	-	-69	-7,122	-426,179
Net carrying amount at 01.01.2017	238,096	52,784	32,536	169	1,007	324,592
Net carrying amount at 31.12.2017	242,306	52,246	34,482	2,451	1,231	332,716
Net carrying amount at 31.12.2018	249,266	52,170	29,191	144	1,179	331,950

# 3. Participations in associates

	31.12.2018	31.12.2017
In CHF 1,000		
Opening balance	80,537	69,502
Acquisitions / capital increases	-	6,000
Disposals	-	-
Change in consolidation scope	-	-7
Conversion differences	-112	308
Result from associates	6,622	7,711
Received dividends	-4,160	-2,977
Impairment	-5,406	_
Closing balance	77,481	80,537

Equity method values of associates to 31.12.2018 (according Swiss GAAP FER).

	Metanord SA	Nord Energia Group	SES Group <sup>1</sup>	Various	Total	
In CHF 1,000						
Non-current assets	59,028	11,889	427,479	2,324	500,720	
Current assets	2,785	25,966	53,629	379	82,759	
Assets	61,813	37,855	481,108	2,703	583,479	
Equity	15,494	28,543	220,180	731	264,948	
Long-term liabilities	44,659	3,143	148,376	1,040	197,218	
Current liabilities	1,660	6,169	112,552	932	121,313	
Liabilities and equity	61,813	37,855	481,108	2,703	583,479	
Revenues	6,377	18,837	140,915	235	166,364	
EBITDA	692	10,840	40,416	-9	51,939	
Net result	-1,274	10,231	16,364	-133	25,188	
AET's shareholdings, in %	33.33%	40%	30%	various		
AET's share of the equity	5,164	11,417	66,054	252	82,887	
Impairments	-5,164	_	_	-242	-5,406	
Value of participations in associates	0	11,417	66,054	10	77,481	

<sup>1</sup> Excluding Senco Holding SA, Senco Sagl and Calore SA, because fully consolidated

The shares of Metanord SA are pledged in favour of creditors of the company. The assets of the company are impaired on the basis of the present value of the expected cash flows.

# 4. Long-term securities

	31.12.2018	31.12.2017
In CHF 1,000		
Trianel Kohlekraftwerk Lünen GmbH & Co. KG	14,067	14,920
Swissgrid AG	12,589	12,589
Kraftwerke Mattmark AG	11,488	11,645
AKEB Aktiengesellschaft für Kernenergie-Beteiligungen Luzern	6,300	6,300
Terravent AG	2,250	2,250
Renewable Energy Investments SPC	-	15,678
./. impairment	-	-15,678
Other	289	289
Total	46,983	47,993

The participation into Trianel Kohlekraftwerk Lünen GmbH & Co. KG is amortised on a straight-line basis according to the duration of the power purchase agreement in force.

The investment into Kraftwerke Mattmark AG is amortised on a straight-line basis to the equity value expected at expiration of the concession.

In 2018 the liquidation process of Renewable Energy Investments SPC (REI) has been concluded and the company has been cancelled.

# 5. Advances and loans to participations

	31.12.2018	31.12.2017
In CHF 1,000		
Terravent AG	11,925	12,750
Metanord SA	8,200	8,200
Swissgrid AG	-	15,552
Other	10	518
Total	20,135	37,020

The advances to Terravent AG and Metanord SA are entirely subordinated.

The loan to Swissgrid AG has been disposed during 2018.

# 6. Intangible assets

	Usage rights	Energy procurement rights	Intangible assets under construction	Other intangible assets	Total
In CHF 1,000					
Cost value at 01.01.2017	15,175	144,555	3,468	12,308	175,506
Change in consolidation scope	_	_	-	-	-
Reclassification	11,429	-	-579	895	11,745
Additions	8	-	272	-	280
Disposals	-	–	-	-1,138	-1,138
Conversion differences	-	-	-	335	335
Cost value at 31.12.2017	26,612	144,555	3,161	12,400	186,728
Change in consolidation scope	_	_	-	-2,508	-2,508
Reclassification	-	-	-210	210	-
Additions	647	-	456	-	1,103
Disposals	– 185	-	-	-	-185
Conversion differences	-	-	-	-114	-114
Cost value at 31.12.2018	27,074	144,555	3,407	9,988	185,024
Accumulated amortisation at 01.01.2017	-7,233	-134,657	_	-11,150	-153,040
Change in consolidation scope	-	-	-	-	-
Reclassification	- 10,922	-	-	-	-10,922
Amortisation	-434	-900	-	-564	-1,898
Additions	_	_	-	-	
Disposals		_	-	879	879
Impairments		-	-	_	
Conversion differences	_	-	-	-311	-311
Accumulated amortisation at 31.12.2017	– 18,589	-135,557	-	-11,146	-165,292
Change in consolidation scope	_	_	-	2,508	2,508
Reclassification	_	-	-	-	-
Amortisation	-341	-900	-	-454	-1,695
Additions	-63	-	-	-	-63
Disposals	185	-	-	-	185
Impairments		8,500		_	8,500
Conversion differences		_		113	113
Accumulated amortisation at 31.12.2018	- 18,808	-127,957	-	-8,979	-155,744
Net carrying amount at 01.01.2017	7,942	9,898	3,468	1,158	22,466
Net carrying amount at 31.12.2017	8,023	8,998	3,161	1,254	21,436
Net carrying amount at 31.12.2018	8,266	16,598	3,407	1,009	29,280

Usage rights include rights for utilisation of third party plants, in particular related to exclusive usage of third party power grid plants, as well as concession fees paid in respect of hydro power concessions.

The energy procurement rights mainly refer to an energy procurement contract with EDF (expiration 31.12.2027); it has been impaired due to the prevailing market conditions, their development in 2018 permitted a partial release of the impairment.

# 7. Other short-term assets

	31.12.2018	31.12.2017
In CHF 1,000		
Other short-term receivables from associates	282	3,037
Other short-term receivables from other related parties	4,685	-
Other short-term receivables from third parties	34,264	27,978
Positive replacement values of transactions valued at market value	35,304	21,838
Energy related and similar certificates	4,619	3,415
Inventories of spare, spare parts and consumables	2,087	9,154
Deferred income taxes	-	347
Total	81,241	65,769

# 8. Prepayments and accrued income

	31.12.2018	31.12.2017
In CHF 1,000		
Associates	5,221	6,109
Other related parties	9,788	7,744
Third parties	82,207	83,836
Work in progress	1,126	1,373
Total	98,342	99,062

The balance includes amounts in foreign currency for EUR 58.1 million (EUR 52.2 million at 31.12.2017). Accrued income mainly includes the value of energy sold during the last reporting month and not yet invoiced.

# 9. Receivables from goods and services

	31.12.2018	31.12.2017
In CHF 1,000		
Associates	4,044	5,506
Other related parties	584	344
Third parties	13,807	12,565
./. allowance for doubtful receivables	-3,369	-3,977
Total	15,066	14,438

The balance includes amounts in foreign currency for EUR 0.7 million (EUR 0.6 million at 31.12.2017).

# 10. Cash and cash equivalents

	31.12.2018	31.12.2017
In CHF 1,000		
Balances in CHF	51,637	88,420
Balances in foreign currencies	21,964	19,103
Total	73,601	107,523

# **11. Provisions**

	Energy onerous contracts	Current and deffered taxes	Personnel related expenses	Other	Total
In CHF 1,000					
Carrying amount at 01.01.2017	13,712	514	14,640	6,263	35,129
thereof long-term	12,667	271	52	-	12,990
thereof short-term	1,045	243	14,588	6,263	22,139
Change in consolidation scope	-	-	-	-	-
Increase	-	186	944	1,301	2,431
Utilisation	-1,045	-168	-13,165	-1,899	-16,277
Release	-2,314	-51	-2	-2,615	-4,982
Carrying amount at 31.12.2017	10,353	481	2,417	3,050	16,301
thereof long-term	9,396	220	54	137	9,807
thereof short-term	957	261	2,363	2,913	6,494
Change in consolidation scope	-	-	-60	-131	-191
Increase	2,648	258	37	915	3,858
Utilisation	–957	-186	-202	-634	-1,979
Release	-	-56	-40	-542	-638
Carrying amount at 31.12.2018	12,044	497	2,152	2,658	17,351
thereof long-term	11,437	170	-	1,236	12,843
thereof short-term	607	327	2,152	1,422	4,508

Provisions for energy onerous contracts include the negative present value of an energy purchase agreement with the Azienda Cantonale dei Rifiuti. The provision is determined according to the current energy price expectations for the contract period and the current EUR/CHF exchange rate.

Deffered income taxes are computed considering a 20% income tax rate.

The provision for personnel related expenses as of 31.12.2018 represents the value of overtime worked and non-taken holidays.

# 12. Long-term financial liabilities

			31.12.2018			31.12.2017
	Financial debt	Debt from finance leases	Total	Financial debt	Debt from finance leases	Total
In CHF 1,000						
Liabilities due between 1 and 5 years	80,922	116	81,038	30,662	5,814	36,476
Liabilities due between 5 and 10 years	93,000	-	93,000	93,000	6,228	99,228
Liabilities due after 10 years	109,000	-	109,000	158,500	-	158,500
Total	282,922	116	283,038	282,162	12,042	294,204

# 13. Other short-term liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Other short-term liabilities towards associates	86	86
Other short-term liabilities towards other related parties	-	13
Other short-term liabilities towards third parties	10,518	8,744
Negative replacement values of transactions valued at market value	33,264	16,717
Total	43,868	25,560

# 14. Short-term financial liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Liabilities towards financial institutions in CHF	100	50,100
Liabilities towards financial institutions in foreign currency	6,779	1,325
Total	6,879	51,425

# 15. Accrued liabilities and deferred income

	31.12.2018	31.12.2017
In CHF 1,000		
Associates	109	7
Other related parties	4,467	55
Third parties	79,663	77,064
Total	84,239	77,126

The balance includes amounts in foreign currency for EUR 52.7 million (EUR 49.6 million at 31.12.2017).

Accrued liabilities mainly includes the value of energy purchased during the last reporting month and not yet invoiced.

# 16. Payables from goods and services

	31.12.2018	31.12.2017
In CHF 1,000		
Associates	948	1,275
Other related parties	3,595	3,558
Third parties	6,248	12,666
Total	10,791	17,499

The balance includes amounts in foreign currency for EUR 3.6 million (EUR 6.2 million at 31.12.2017).

# 17. Energy income

	2018	2017
In CHF 1,000		
Energy sales in Switzerland	296,100	260,461
Energy sales in Italy	46,767	103,950
Energy sales in Germany	336,459	320,220
Energy sales in France	100,191	102,235
Other energy income	28,502	19,962
Total	808,019	806,828

The item other energy income includes the economic effect of the mark to market valuation of energy and  $CO_2$  emission rights forward transactions.

# 18. Other operating income

	2018	2017
In CHF 1,000		
Income from services	10,150	9,231
Own work capitalised	3,934	3,753
Other	4,544	4,340
Total	18,628	17,324

# **19. Energy purchases**

	2018	2017
In CHF 1,000		
Purchases from participations	-95,093	-85,601
Long-term contractual purchases	-33,340	-31,637
Purchases on the market	-650,515	-666,216
Total	-778,948	-783,454

The expenses related to the energy offtaken from the production participations held by the Canton Ticino (Officine idroelettriche della Maggia SA, Officine idroelettriche di Blenio SA and Verzasca SA) are included within purchases from participations.

# 20. Personnel expenses

	2018	2017
In CHF 1,000		
Salaries and other compensation	-23,471	-22,274
Social contributions	-5,300	-5,541
Other expenses	-508	-424
Recoveries from insurance companies	243	115
Total	-29,036	-28,124

# **Employees of the Group**

	31.12.2018	31.12.2017
Full time equivalent		
Permanent employees	227.6	218.2
Auxiliary employees	7.7	10.7
Apprentices	30.0	24.0
Total	265.3	252.9

During 2018 AET has hired 11 employees previously employed by Officine idroelettriche della Maggia SA (Ofima). This staff partially still works on mandates performed on behalf of Ofima. The sale of Biogen Chivasso Srl determined the departure from the Group of 7 employees.

# 21. Other operating expenses

Total	-27,356	-24,952
Other	-8,667	-6,369
Local taxes and other contributions	-3,829	-3,723
Water fees	-14,860	-14,860
In CHF 1,000		
	2018	2017

Local taxes and other contributions include the payment of accumulation contributions to power plants upstream to AET's plants for CHF 1.2 million.

# 22. Financial result

	2018	2017
In CHF 1,000		
Interest income	274	1,089
Income from participations	970	845
Exchange rate differences	938	-524
Interest payments and commissions	-6,902	-8,557
Other financial expenses	-61	-154
Total	-4,781	-7,301

Exchange rate differences include the cost of foreign exchange currency hedging operations.

# 23. Extraordinary result

	2018	2017
In CHF 1,000		
Release of provisions	-	4,661
Reversal of impairments on non-current assets	8,500	2,170
Profit from disposal of non-current assets	2,642	610
Other extraordinary income	9,965	550
Impairments of non-current assets	-5,406	-438
Increase of provisions	-3,169	-1,035
Other extraordinary expenses	-254	-343
Total	12,278	6,175

The increase and release of provisions refers to the adjustment of the provision for energy onerous contracts to the prevailing market conditions.

Other extraordinary income include indemnities for CHF 9.1 million paid by the national transmission grid operator for power grid losses relating to the years 2009-2014.

# 24. Goodwill

The positive difference between the acquisition cost of a participation and its equity value is treated as goodwill. It is offset with retained earnings without impact on the income statement in the acquisition year.

If the goodwill paid were capitalised on the balance sheet and amortised on a straight-line basis over 5 years, the consolidated balance sheet and the consolidated income statement would present the following variations:

	2018	2017
In CHF 1,000		
Historical cost	2,167	2,167
Goodwill	-	83
Equity (retained earnings)	-	83
Amortisation goodwill of the year	-83	-83
Result for the year	-83	-83

# 25. Contingent liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Guarantees in the interest of:		
Associates	-	-
Third parties	14,538	15,096
Total	14,538	15,096

Guarantees are issued as security of financing facilities granted to group associated companies or as security for operating commitments. Guarantees issued in the interest of third parties are related to the financing of disposed plants for which coverage AET obtained respective guarantees or pledges.

# 26. Other non-recognisable commitments

In the context of the management of its energy portfolio, the AET Group has entered into transactions on the futures markets and finalised various long-term energy purchase agreements involving irrevocable obligations:

## **Energy purchase contracts and market transactions**

	Market transactions	Long-term contracts
Cumulative volume in CHF 1,000		
2019	662,451	35,954
from 2 to 5 year	434,751	149,025
over 5 year		160,877

In addition, AET Group has an offtake commitment for the energy produced by its own power generation participations and the participations of the Canton Ticino, paying its production cost quota. The duration of these obligations is undetermined and depends on the future developments of those participations.

Finally, the AET Group has entered into a cross-border interconnection capacity agreement with expiration 2022 and with an annual volume of CHF 7.5 million (value of the indexed contact based on 2018 prices and year-end exchange rate).

At 31.12.2018 AET Group has derivative financial instruments subscribed for interest rate hedging purpose for a contractual volume of CHF 10 million (31.12.2017: CHF 10 million).

## Forward currency operations

31.12.2018	M	aturity year 2019	Μ	laturity year 2020
Operation	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)
Buy EUR	_	_	-	_
Sell EUR	36,000	1.14	-	-
Buy NOK	-	-	-	-
Sell NOK	_	_	-	_
Buy USD	_	_	-	_
Sell USD	_	-	-	-

Maturity year 2019	
Amount in currency (in 1,000)	Average exchange rate (currency/CHF)
-	-
-	-
-	-
-	-
-	-
-	-

Forward foreign currency contracts have been made with the purpose of hedging expected future foreign currency cash flows.

At 31.12.2018 Group AET has no off-balance sheet lease commitments (31.12.2017: unchanged).

# 27. Pension benefit obligations

31.12.2018	Coverage rate	Economic benefit/ economic obligations for the Group	Change recognised in the result of the period	Expense for contributions of the period	Pension benefit expense in the personnel expenses
In CHF 1,000 CPE Fondazione di Previdenza Energia	104.4%			-2,334	-2,334
Fondo Pensionamento Anticipato dell'AET	108.1%	-	-	-340	-340
Total		-	-	-2,674	-2,674

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Fondo Pensionamento Anticipato dell'AET	109.3%	_	_	-508	-508
CPE Fondazione di Previdenza Energia	116.5%	162	-	-2,420	-2,420
In CHF 1,000					
31.12.2017	Coverage rate	Economic benefit/ economic obligations for the Group	Change recognised in the result of the period	Expense for contributions of the period	Pension benefit expense in the personnel expenses

# 28. Transactions with related parties

## **Transactions with associates**

	2018	2017
In CHF 1,000		
Energy income	24,423	25,422
Service and other income	17,118	18,242
Financial income	-	-
Energy purchases	80	62
Service and other expenses	10,054	10,851

## **Transactions with other related parties**

	2018	2017
In CHF 1,000		
Energy income	1,212	1,450
Service and other income	2,346	1,084
Financial income	532	539
Energy purchases	94,566	85,127
Service and other expenses	2,153	1,943

## 29. Risk assessment

The Board of Directors and Management give the utmost attention and deploy the necessary resources for the valuation and management of risks in order to adhere to the standards of the sector. The management and valuation of the company's risks have been integrated into the company's operating procedures, in order to guarantee the maximum effectiveness.

From a financial point of view the AET Group is exposed to following main risk factors:

**Volume risk:** is the risk associated with the variation in the sales volume, respectively of production volumes compared to forecasts. Its principal cause is the meteorological risk in that the meteorological deviations from the long-term averages cause variations in consumption and production from the hydroelectric plants that are difficult to predict. In the long-term the AET Group manages this risk by diversifying it's supplies with long-term contracts and participations. In the medium to short-term this risk is managed with a gradual rebalancing of the portfolio using updated forecasts and historical data. In addition the AET Group can count on a certain reserve capacity from it's own hydroelectric plants.

**Market risk:** is the risk associated with the variations in the price of energy on the markets and the fluctuation of exchange rates. The AET Group manages this risk by monitoring the evolutions and the expectations of market prices and consequently hedges the positions. The foreign exchange risk is managed through hedging operations. Market risks mostly have an effect on the quantity of energy sold and produced resulting from the volume risk that can not be efficiently hedged in advance because unknown. **Counterparty risk:** is the risk of loss related to payment default of commercial counterparties. The wholesale activity is mainly performed with large Swiss and bordering countries power companies. Limits of exposure are fixed for each counterpart, based on their economic and financial situation. Counterparty risk related to the Swiss commercial / distribution activity is managed through the constant monitoring of the receivable positions, the subscription of receivables insurances, the request of bank guarantees or deposits.

**Regulatory risk:** relates to the introduction or modification of laws, acts or rules at Swiss or European level, which might have an impact on the activity of the AET Group. The AET Group constantly monitors the regulatory developments, adopting the necessary adjustments.

# **30. Subsequent events**

- 2018: no significant event.
- 2017: no significant event.

The AET staff involved in the construction and maintenance of high-voltage systems coordinate their work with the Control centre. -

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# Audit report by KPMG SA on the consolidated financial statements



KPMG AG is a subsidiary of KPMG Holding AG, which is a member of the KPMG network of independent firms affiliated with KPMG International Cooperative ("KPMG International"), a Sivis Isigal entity. All rights reserved.



The Control centre ensures that maintenance work on its network overhead lines is carried out in complete safety.

Photo: Stefano Mussio ©Azienda Elettrica Ticinese



The connection between the Monte Carasso Control centre and the plants on the cantonal territory is guaranteed by a sophisticated fibre optic network, managed personally by AET.

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Financial statements

# Balance sheet

# Assets

	31.12.2018	31.12.2017
In CHF 1,000 Notes		
Plants and equipment	208,344	201,820
Land and buildings	49,817	49,690
Tangible fixed assets under construction	25,557	33,907
Other tangible fixed assets	1,156	1,190
Tangible fixed assets     2	284,874	286,607
Participations 3	39,190	44,940
Long-term securities 4	46,719	47,729
Advances and loans to participations 5	53,705	53,589
Other financial assets	608	5,416
Financial assets	140,222	151,674
Usage rights	7,830	7,523
Energy procurement rights	16,598	8,998
Intangible assets under construction	1,232	1,077
Other intangible assets	1,009	1,243
Intangible assets 6	26,669	18,841
Non-current assets	451,765	457,122
Other short-term assets 7	57,304	42,535
Prepayments and accrued income 8	98,196	98,469
Receivables from goods and services 9	14,527	23,376
Cash and cash equivalents 10	59,465	95,711
Current assets	229,492	260,091
Assets	681,257	717,213

# Liabilities and equity

	31.12.2018	31.12.2017
In CHF 1,000 Notes		
Endowment capital	40,000	40,000
General reserves	67,000	67,000
Statutory reserves	51,000	51,000
Results carried forward	112,331	137,047
Result for the year	-8,830	-21,516
Equity	261,501	273,531
Long-term provisions 11	11,437	9,396
Other long-term liabilities	1,333	-
Long-term financial liabilities 12	266,000	266,000
Long-term liabilities	278,770	275,396
Short-term provisions	3,367	4,741
Other short-term liabilities 13	41,857	25,188
Short-term financial liabilities 14	6,761	50,000
Accrued liabilities and deferred income 15	77,787	73,262
Payables from goods and services 16	11,214	15,095
Current liabilities	140,986	168,286
Liabilities	419,756	443,682
Liabilities and equity	681,257	717,213

# Income statement

		2018	2017
In CHF 1,000	Notes		
Operating income			
Energy income	17	806,089	802,024
Grid income		39,398	44,947
Other operating income	18	20,225	19,448
Operating income		865,712	866,419
Operating expenses			
Energy purchases	19	-791,002	-795,666
Grid expenses		-15,537	-18,608
Personnel expenses	20	-27,967	-26,872
Service and material expenses		-6,757	-7,062
Depreciation on tangible fixed assets		-13,853	-14,174
Amortisation on intangible assets		-1,621	-1,801
Other depreciation and amortisation		-1,260	-1,260
Other operating expenses	21	-21,167	-20,383
Operating expenses		-879,164	-885,826
Operating result		-13,452	-19,407
 Financial result	22	-3,335	-3,237
Ordinary result		-16,787	-22,644
Non-operating result		_	_
Extraordinary result	23	7,957	1,128
Result for the year		-8,830	-21,516

# Cash flow statement

	2018	2017
In CHF 1,000		
Result for the year	-8,830	-21,516
Depreciation on tangible fixed assets	13,853	14,174
Amortisation on intangible assets	1,621	1,801
Other depreciation and amortisation	1,260	1,260
Change in provisions	667	-16,836
Change in impairments	-573	500
Profit / loss from disposal of non-current assets	-670	-8
Other non cash expenses and income	502	-5,985
Change in receivables, prepayments and accrued income and other short-term assets	-5,090	40,856
Change in payables, accrued liabilities and deferred income and other short-term liabilities	17,313	-22,418
Cash flow from operating activities	20,053	-8,172
Outflows for investment in tangible fixed assets	-12,238	-15,540
Inflows from disposal of tangible fixed assets	21	
Outflows for investment in intangible assets	-949	-168
Inflows from disposal of intangible assets	-	-
Outflows for investment in financial assets	-15,780	-3,281
Inflows from disposal of financial assets	17,184	46
Cash flow from investing activities	-11,762	-18,348
Issuance / repayment of short-term financial liabilities	-42,670	
Issuance / repayment of long-term financial liabilities	1,333	50,000
Interests on capital, due to the State	-3,200	-3,200
Distribution of dividends to the State	-	-
Cash flow from financing activities	-44,537	46,800
Cash and cash equivalents at the beginning of the year	95,711	75,431
Cash flow	-36,246	20,280
Cash and cash equivalents at the end of the year	59,465	95,711

# Statement of changes in equity

	Endowment capital	General reserves	Statutory reserves	Results carried forward	Result for the year	Equity
In CHF 1,000						
Equity at 01.01.2017	40,000	67,000	51,000	171,982	-31,735	298,247
Allocation of result	_	-	_	-31,735	31,735	-
Interests on capital, due to the State	-	-	-	-3,200	-	-3,200
Distribution of dividends	-	-	_	-	-	-
Result for the year 2017	_	–	_	-	-21,516	-21,516
Equity at 31.12.2017	40,000	67,000	51,000	137,047	-21,516	273,531
Allocation of result	_	-	_	-21,516	21,516	-
Interests on capital, due to the State	_	–	–	-3,200	-	-3,200
Distribution of dividends	-	–	-	-	-	-
Result for the year 2018	-	–	–	-	-8,830	-8,830
Equity at 31.12.2018	40,000	67,000	51,000	112,331	-8,830	261,501

# Notes to the financial statements

# **1. Accounting principles**

The financial statements 2018 of the Azienda Elettrica Ticinese (AET) were prepared in accordance to the Swiss GAAP FER as a whole and approved by the Board of Directors on the 30.04.2019.

Assets and liabilities are valued with uniform principles. The most significant accounting principles are:

#### 1.1. Tangible fixed assets

Tangible fixed assets are valued at their acquisition or construction cost, taking into account the necessary technical-economical depreciation and any necessary impairment. Depreciation is computed on a straight-line basis, considering the technical life of the assets generally accepted within the sector. Land is not depreciated. Tangible fixed assets under construction are reported at construction cost, tangible fixed assets under construction are not depreciated. The following minimum and maximum depreciation periods for each tangible fixed asset category are applied:

Civil works	40 – 80 years
Electromechanical installations	40 – 50 years
Electromechanical equipments	15 – 35 years
Power lines	30 – 55 years
Substations and transformators	20 – 35 years
Buildings	40 – 50 years
Photovoltaic plants	12 – 25 years
Machinery and tools	5 – 25 years
Vehicles	3 – 10 years
IT equipments	3 – 5 years

Renewal or optimisation investments on plants are capitalised if useful life, capacity or performance of the involved plant are significantly improved.

#### 1.2. Financial assets

Financial assets are reported at their cost value, adjusted for any impairment. For production participations, organised according to the principle of energy withdrawal at generation costs, the investment value exceeding the expected equity value at the end of the useful life of the power plant is depreciated on a straight-line basis according to the useful life of the power plant. Long-term advances in foreign currency are converted at the year-end exchange rates.

## 1.3. Intangible assets

Intangible assets are capitalised at their acquisition cost adjusted by amortisation and any necessary impairment. Amortisation is computed on a straight-line basis, considering the useful life of the asset. Usage right without expiration are amortised on the basis of the technical life of the involved plant (40-80 years).

### 1.4. Energy related and similar certificates

Energy related and similar certificates acquired within the trading portfolio are booked at their market value (mark to market) at the balance sheet date, changes in market value incurred during the financial year are recorded in the income statement within other energy income. Energy related and similar certificates acquired for the purpose of hedging of the generation portfolio of AET are booked at the weighted average purchase price.

### **1.5. Inventories**

Inventories include small tools, spare parts and consumables. They are valued at their weighted average purchase price, taking into account any impairment for slow-moving items or obsolescence.

## 1.6. Receivables

Receivables are reported at their face value, taking into account potential losses. Foreign currency receivables are converted at the year-end exchange rates.

#### 1.7. Cash and cash equivalents

Cash and cash equivalents are reported at their face value and include cash in hand, post and bank accounts. Balances in foreign currencies are converted at year-end exchange rates.

#### 1.8. Impairment

At each balance sheet date, all assets are tested for any impairment indicators. In case of existence of such indicators, the recoverable amount, that is the higher between the net selling price and the value in use, is computed. The value in use is generally computed on the basis of the present value of the expected future cash flows. If necessary, the carrying value is adjusted to the recoverable amount. In case of improvement of the recoverable amount, the carrying value is revaluated at maximum to the value according to the original depreciation scheme.

### **1.9. Provisions**

Provisions are deemed to cover probable future disbursements related to legal or implicit obligations arising from past events. Long-term provisions are reported at the present value at the balance sheet day of the expected future disbursement.

#### 1.10. Liabilities

All liabilities are reported at their nominal value. Liabilities in foreign currency are converted at year-end exchange rates.

#### 1.11. Off-balance-sheet transactions

All contingent liabilities and other non-recognisable commitments existing at the balance sheet date are disclosed in the notes to the financial statements.

### 1.12. Energy forward sale and purchase transactions

Energy forward sale and purchase transactions, as well as the economic result of energy related transactions with financial instruments, made within the trading portfolio are booked at their market value at the balance sheet date (mark to market). Positive and negative replacement values (the difference between the market price at the balance sheet date and the contract price) are booked within other short-term assets and other short-term liabilities respectively. Changes in market value incurred during the financial year are recorded in the income statement within other energy income.

Energy forward sale and purchase transactions, as well as the economic result of transactions with energy related financial instruments, entered for the purpose of hedging of AET's generation portfolio are recognised in the income statement at delivery.

#### 1.13. Revenues

Grid income and other operating income are recognised within the income statement when realised. All revenues are recorded net of price reductions, sale taxes and value added taxes.

#### 1.14. Pension funds

The personnel of AET is affiliated to a multi-employer independent pension institution of the energy sector. From 01.04.2017 AET's personnel is affiliated to a defined contribution pension scheme (AET has previously been affiliated to a defined benefit pension scheme). In order to facilitate early retirement for its employees, AET is also affiliated with the "Fondo di pensionamento anticipato a favore del personale dell'Azienda Elettrica Ticinese". The financial implications of the pension schemes in place, regardless of their structure and legal form, are included in the financial statements. Surplus payments or deficits are determined on the basis of the latest available financial statements of the pension funds involved. Any liabilities (economic obligations) or any assets (economic benefits) in addition to the payment of the regular premiums are recorded in the financial statements. Economic obligations are recognised when pension liabilities are undercovered, generating a future cash outflow for the company in the form of restructuring contributions. Economic benefits consist of future positive cash flow resulting from the use of employer's contribution reserves or other benefits. The yearly contributions, the yearly change in any economic obligations and economic benefits, as well as the change in the employer's contribution reserve, are recorded in the income statements under personnel expenses.

#### 1.15. Income taxes

AET is not subject to any income tax.

#### 1.16. Related party transactions

Transactions with subsidiaries include all transactions and debit / credit relationships with companies controlled by AET through its voting rights majority. Transactions with associates include all transactions and debit / credit relationships with companies of which AET holds between 20% and 50% of the voting rights. Transactions with other related parties include transactions with the power generation / procurement companies Officine idroelettriche della Maggia SA, Officine idroelettriche di Blenio SA, Verzasca SA, Ritom SA held by the Canton Ticino as well as Kraftwerke Mattmark AG, AKEB Aktiengesellschaft für Kernenergie-Beteiligungen Luzern and Trianel Kohlekraftwerk Lünen GmbH & Co. KG held by AET for less than 20%. AET offtakes the respective share of energy and pays the related production / procurement costs.

# 2. Tangible fixed assets

	Plants and equipment	Land and buildings	Tangible fixed assets under construction	Other tangible fixed assets	Total
In CHF 1,000					
Cost value at 01.01.2017	488,690	59,429	31,286	7,164	586,569
Reclassification	11,473	373	-12,426	264	-316
Additions	1,615	-	15,058	399	17,072
Disposals	– 15,059	-182	-11	-373	-15,625
Cost value at 31.12.2017	486,719	59,620	33,907	7,454	587,700
Reclassification	15,313	1,088	-17,074	673	-
Additions	7,473	-	8,724	69	16,266
Disposals	-47	-633	-	-180	-860
Cost value at 31.12.2018	509,458	60,075	25,557	8,016	603,106
Accumulated depreciation at 01.01.2017	-284,782	-9,062	-	-6,292	-300,136
Reclassification	_	_	_	-	-
Depreciation	-12,961	-868	-	-345	-14,174
Additions	-1,532	-	-	-	-1,532
Disposals	14,376	-	-	373	14,749
Accumulated depreciation at 31.12.2017	-284,899	-9,930	-	-6,264	-301,093
Reclassification	364	-	-	-364	-
Depreciation	-12,560	-881	-	-412	-13,853
Additions	-4,028	-	-	-	-4,028
Disposals	9	553	-	180	742
Accumulated depreciation at 31.12.2018	-301,114	-10,258	_	-6,860	-318,232
Net carrying amount at 01.01.2017	203,908	50,367	31,286	872	286,433
Net carrying amount at 31.12.2017	201,820	49,690	33,907	1,190	286,607
Net carrying amount at 31.12.2018	208,344	49,817	25,557	1,156	284,874

# **3. Participations**

	31.12.2018	31.12.2017
In CHF 1,000		
Società Elettrica Sopracenerina SA (SES)	21,052	21,052
Metanord SA	11,505	11,505
./. impairment	-11,505	-6,005
SPE Società per Partecipazioni Energetiche SA	8,000	8,000
./. impairment	-8,000	-8,000
Lucendro SA	7,051	7,301
TERIS Teleriscaldamento del Bellinzonese SA	6,000	6,000
Parco eolico del San Gottardo SA	2,868	2,868
Senco Holding SA	1,149	1,149
Calore SA	1,000	1,000
Capriasca Calore SA	70	70
Total	39,190	44,940

The shares in Metanord SA are pledged in favour of creditors of the company, the impairment has been determined on the basis of the present value of expected cash flows. As of 31.12.2018 the participation is fully impaired, as a consequence of an increase of the impairment.

The participation into Lucendro SA is amortised on a straight-line basis to the equity value expected at expiration of the concession.

# 4. Long-term securities

	31.12.2018	31.12.2017
In CHF 1,000		
Trianel Kohlekraftwerk Lünen GmbH & Co. KG	14,067	14,920
Swissgrid AG	12,589	12,589
Kraftwerke Mattmark AG	11,488	11,645
AKEB Aktiengesellschaft für Kernenergie-Beteiligungen Luzern	6,300	6,300
Terravent AG	2,250	2,250
Renewable Energy Investments SPC	-	15,678
./. impairment	-	-15,678
Other	25	25
Total	46,719	47,729

The participation into Trianel Kohlekraftwerk Lünen GmbH & Co. KG is amortised on a straight-line basis according to the duration of the power purchase agreement in force.

The investment into Kraftwerke Mattmark AG is amortised on a straight-line basis to the equity value expected at expiration of the concession.

In 2018 the liquidation process of Renewable Energy Investments SPC (REI) has been concluded and the company has been cancelled.

# 5. Advances and loans to participations

	31.12.2018	31.12.2017
In CHF 1,000		
SPE Società per Partecipazioni Energetiche SA	36,632	25,164
./. impairment	-11,342	-9,257
Terravent AG	11,925	12,750
Metanord SA	8,200	8,200
TERIS Teleriscaldamento del Bellinzonese SA	4,000	-
Lucendro SA	3,000	-
Parco eolico del San Gottardo SA	1,140	1,030
Swissgrid AG	-	15,552
Other	150	150
Total	53,705	53,589

The advance to SPE Società per Partecipazioni Energetiche SA (SPE) is subordinated for an amount of CHF 15 million and has been impaired because of the deterioration of the financial and economic conditions of the participations held by SPE. The advances to Terravent AG and Metanord SA are entirely subordinated.

The advance to TERIS Teleriscaldamento del Bellinzonese SA was precedently classified within short-term receivable. The loan to Swissgrid AG has been disposed during 2018.

#### 6. Intangible assets

	Usage rights	Energy procurement rights	Intangible assets under construction	Other intangible assets	Total
In CHF 1,000					
Cost value at 01.01.2017	15,124	144,555	1,488	8,652	169,819
Reclassification	-	-	-579	895	316
Additions	-	-	168	-	168
Disposals	-	_	-	-240	-240
Cost value at 31.12.2017	15,124	144,555	1,077	9,307	170,063
Reclassification	-	-	-210	210	-
Additions	647	-	365	-	1,012
Disposals	– 185	-	-	-	-185
Cost value at 31.12.2018	15,586	144,555	1,232	9,517	170,890
Accumulated amortisation at 01.01.2017	-7,231	-134,657	_	-7,773	- 149,661
Reclassification	-		_	-	-
Amortisation	-370	-900	-	-531	-1,801
Additions	-	-	-	-	-
Disposals	-	-	-	240	240
Impairments	-	-	-	-	-
Accumulated amortisation at 31.12.2017	-7,601	-135,557	-	-8,064	-151,222
Reclassification	-	-	-	-	-
Amortisation	-277	-900	-	-444	-1,621
Additions	-63	-	-	-	-63
Disposals	185	-	-	-	185
Impairments	-	8,500	-	-	8,500
Accumulated amortisation at 31.12.2018	-7,756	-127,957	_	-8,508	-144,221
Net carrying amount at 01.01.2017	7,893	9,898	1,488	879	20,158
Net carrying amount at 31.12.2017	7,523	8,998	1,077	1,243	18,841
Net carrying amount at 31.12.2018	7,830	16,598	1,232	1,009	26,669

Usage rights include rights for utilisation of third party plants, in particular related to exclusive usage of third party power grid plants, as well as concession fees paid in respect of hydro power concessions.

The energy procurement rights mainly refer to an energy procurement contract with EDF (expiration 31.12.2027); it has been impaired due to the prevailing market conditions, their development in 2018 permitted a partial release of the impairment.

#### 7. Other short-term assets

	31.12.2018	31.12.2017
In CHF 1,000		
Other short-term receivables from subsidiaries	-	4,000
Other short-term receivables from associates	-	3,000
Other short-term receivables from other related parties	4,635	-
Other short-term receivables from third parties	10,879	8,321
Positive replacement values of transactions valued at market value	35,305	21,838
Energy related and similar certificates	4,619	3,415
Inventories of spare parts and consumables	1,866	1,961
Total	57,304	42,535

Other short-term receivables from subsidiaries as of 31.12.2017 refers to a loan to TERIS Teleriscaldamento del Bellinzonese SA, reclassified as long-term advance as of 31.12.2018.

#### 8. Prepayments and accrued income

	31.12.2018	31.12.2017
In CHF 1,000		
Subsidiaries	3,844	3,699
Associates	4,135	4,736
Other related parties	9,788	7,709
Third parties	79,160	80,825
Work in progress	1,269	1,500
Total	98,196	98,469

The balance includes amounts in foreign currency for EUR 58.1 million (EUR 51.7 million at 31.12.2017). Accrued income mainly includes the value of energy sold during the last reporting month and not yet invoiced.

#### 9. Receivables from goods and services

	31.12.2018	31.12.2017
In CHF 1,000		
Subsidiaries	2,434	10,826
Associates	4,044	5,482
Other related parties	538	306
Third parties	7,511	6,762
Total	14,527	23,376

The balance includes amounts in foreign currency for EUR 1.1 million (EUR 6.7 million at 31.12.2017).

#### 10. Cash and cash equivalents

	31.12.2018	31.12.2017
In CHF 1,000		
Balances in CHF	45,537	81,876
Balances in foreign currencies	13,928	13,835
Total	59,465	95,711

#### **11. Provisions**

	Energy onerous contracts	Personnel related expenses	Other	Total
In CHF 1,000				
Carrying amount at 01.01.2017	13,712	14,561	7,700	35,973
thereof long-term	12,667	-	5,000	17,667
thereof short-term	1,045	14,561	2,700	18,306
Reclassification	_	_	-5,000	-5,000
Increase	-	921	519	1,440
Utilisation	-1,045	-13,118	-1,427	-15,590
Release	-2,314	-2	-370	-2,686
Carrying amount at 31.12.2017	10,353	2,362	1,422	14,137
thereof long-term	9,396	_	-	9,396
thereof short-term	957	2,362	1,422	4,741
Reclassification	_	_	-	-
Increase	2,648	29	320	2,997
Utilisation	-957	-202	-634	-1,793
Release	_	-37	-500	-537
Carrying amount at 31.12.2018	12,044	2,152	608	14,804
thereof long-term	11,437	-	-	11,437
thereof short-term	607	2,152	608	3,367

Provisions for energy onerous contracts include the negative present value of an energy purchase agreement with the Azienda Cantonale dei Rifiuti. The provision is determined according to the current energy price expectations for the contract period and the current EUR/CHF exchange rate.

The provision for personnel related expenses as of 31.12.2018 represents the value of overtime worked and non-taken holidays.

#### **12. Long-term financial liabilities**

			31.12.2018			31.12.2017
	Financial debt	Debt from finance leases	Total	Financial debt	Debt from finance leases	Total
In CHF 1,000						
Liabilities due between 1 and 5 years	73,000	-	73,000	23,000	_	23,000
Liabilities due between 5 and 10 years	93,000	-	93,000	93,000	-	93,000
Liabilities due after 10 years	100,000	-	100,000	150,000	-	150,000
Total	266,000	-	266,000	266,000	-	266,000

#### 13. Other short-term liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Other short-term liabilities towards subsidiaries	-	_
Other short-term liabilities towards associates	86	86
Other short-term liabilities towards other related parties	0	13
Other short-term liabilities towards third parties	8,507	8,372
Negative replacement values of transactions valued at market value	33,264	16,717
Total	41,857	25,188

#### 14. Short-term financial liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Liabilities towards financial institutions in CHF	-	50,000
Liabilities towards financial institutions in foreign currency	6,761	-
Total	6,761	50,000

#### 15. Accrued liabilities and deferred income

	31.12.2018	31.12.2017
In CHF 1,000		
Subsidiaries	842	756
Associates	109	_
Other related parties	4,467	55
Third parties	72,369	72,451
Total	77,787	73,262

The balance includes amounts in foreign currency for EUR 53.0 million (EUR 49.8 million at 31.12.2017). Accrued liabilities mainly includes the value of energy purchased during the last reporting month and not yet invoiced.

#### 16. Payables from goods and services

	31.12.2018	31.12.2017
In CHF 1,000		
Subsidiaries	1,984	3,716
Associates	7	106
Other related parties	3,595	3,558
Third parties	5,628	7,715
Total	11,214	15,095

The balance includes amounts in foreign currency for EUR 3.6 million (EUR 5.3 million at 31.12.2017).

#### 17. Energy income

	2018	2017
In CHF 1,000		
Energy sales in Switzerland	287,679	257,305
Energy sales in Italy	53,095	107,072
Energy sales in Germany	336,459	320,231
Energy sales in France	100,191	102,235
Other energy income	28,665	15,181
Total	806,089	802,024

The item other energy income includes the economic effect of the mark to market valuation of energy and  $CO_2$  emission rights forward transactions.

#### 18. Other operating income

	2018	2017
In CHF 1,000		
Income from services	12,792	13,058
Own work capitalised	3,468	3,168
Other	3,965	3,222
Total	20,225	19,448

#### **19. Energy purchases**

	2018	2017
In CHF 1,000		
Purchases from participations	-101,106	-91,514
Long-term contractual purchases	-33,340	-31,637
Purchases on the market	-656,556	-672,515
Total	-791,002	-795,666

The expenses related to the energy offtaken from the production participations held by the Canton Ticino (Officine idroelettriche della Maggia SA, Officine idroelettriche di Blenio SA and Verzasca SA) are included within purchases from participations.

#### 20. Personnel expenses

	2018	2017
In CHF 1,000		
Salaries and other compensation	-22,610	-21,271
Social contributions	-5,108	-5,305
Other expenses	-492	-411
Recoveries from insurance companies	243	115
Total	-27,967	-26,872

#### **Employees of the company**

	31.12.2018	31.12.2017
Full time equivalent		
Permanent employees	220.5	204.1
Auxiliary employees	7.7	10.7
Apprentices	30.0	24.0
Total	258.2	238.8

During 2018 AET has hired 11 employees previously employed by Officine idroelettriche della Maggia SA (Ofima). This staff partially still works on mandates performed on behalf of Ofima.

#### **21. Other operating expenses**

	2018	2017
In CHF 1,000		
Water fees	-12,494	-12,494
Local taxes and other contributions	-3,493	-3,375
Other	-5,180	-4,514
Total	-21,167	-20,383

Local taxes and other contributions include the payment of accumulation contributions to power plants upstream to AET's plants for CHF 1.2 million.

#### 22. Financial result

	2018	2017
In CHF 1,000		
Interest income	294	1,088
Income from participations	2,194	2,118
Exchange rate differences	367	1,375
Interest payments and commissions	-6,130	-7,664
Other financial expenses	-60	-154
Total	-3,335	-3,237

Exchange rate differences include the cost of foreign exchange currency hedging operations.

#### 23. Extraordinary result

	2018	2017
In CHF 1,000		
Reversal of impairments on non-current assets	8,500	-
Release of provisions	-	2,314
Profit from disposal of non-current assets	671	8
Other extraordinary income	9,361	1
Impairments of non-current assets	-7,927	-500
Increase of provisions	-2,648	-513
Other extraordinary expenses	-	-182
Total	7,957	1,128

The increase and release of provisions refers to the adjustment of the provision for energy onerous contracts to the prevailing market conditions.

Other extraordinary income include indemnities for CHF 9.1 million paid by the national transmission grid operator for power grid losses relating to the years 2009-2014.

#### 24. Contingent liabilities

	31.12.2018	31.12.2017
In CHF 1,000		
Guarantees in the interest of:		
Subsidiaries	23,919	46,419
Associates	-	-
Third parties	14,538	15,096
Total	38,457	61,515

Guarantees are issued as security of financing facilities granted to group companies or as security for operating commitments. Guarantees issued in the interest of third parties are related to the financing of disposed plants for which coverage AET obtained respective guarantees or pledges.

#### 25. Other non-recognisable commitments

In the context of the management of its energy portfolio, AET has entered into transactions on the futures markets and finalised various long-term energy purchase agreements involving irrevocable obligations:

#### **Energy purchase contracts and market operations**

	Market transactions	Long-term contracts
Cumulative volume in CHF 1,000		
2019	662,451	35,954
from 2 to 5 years	434,751	149,025
over 5 years	-	160,877

In addition, AET has an offtake commitment for the energy produced by its own power generation participations and the participations of the Canton Ticino, paying its production cost quota. The duration of these obligations is undetermined and depends on the future developments of those participations.

Finally, AET has entered into a cross-border interconnection capacity agreement with expiration 2022 and with an annual volume of CHF 3.9 million (value of the indexed contact based on 2018 prices and year-end exchange rate).

#### **Forward currency operations**

31.12.2018	Maturity year 2019		Maturity year 20	
Operation	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)
Buy EUR	-	-	-	-
Sell EUR	36,000	1.14	-	_
Buy NOK	-	_	-	-
Sell NOK	_	-	-	-
Buy USD	-	-	-	-
Sell USD	-	-	-	-

31.12.2017	M	Maturity year 2018		Maturity year 2019	
Operation	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)	Amount in currency (in 1,000)	Average exchange rate (currency/CHF)	
Buy EUR	_	_	_	-	
Sell EUR	25,000	1.15	-	-	
Buy NOK	14,200	0.12	-	-	
Sell NOK	2,200	0.12	-	-	
Buy USD	575	0.90	-	-	
Sell USD	575	0.94	-	-	

Forward foreign currency contracts have been made with the purpose of hedging expected future foreign currency cash flows.

At 31.12.2018 AET has no off-balance sheet lease commitments (31.12.2017: unchanged).

# 26. Pension benefit obligations

31.12.2018	Coverage rate	Economic benefit/ economic obligations for the company	Change recognised in the result of the period	Expense for contributions of the period	Pension benefit expense in the personnel expenses
In CHF 1,000					
CPE Fondazione di Previdenza Energia	104.4%	_	_	-2,334	-2,334
Fondo Pensionamento Anticipato dell'AET	108.1%	-	–	-340	-340
Total		_	_	-2,674	-2,674

<b>31.12.2017</b> In CHF 1,000	Coverage rate	Economic benefit/ economic obligations for the company	Change recognised in the result of the period	Expense for contributions of the period	Pension benefit expense in the personnel expenses
CPE Fondazione di Previdenza Energia	116.5%	162	_	-2,420	-2,420
Fondo Pensionamento Anticipato dell'AET	109.3%	-	-	-508	-508
Total		162	_	-2,928	-2,928

#### 27. Transactions with related parties

#### Transactions with subsidiaries

	2018	2017
In CHF 1,000		
Energy income	9,068	9,167
Service and other income	2,818	3,970
Financial income	655	676
Energy purchases	19,657	20,567
Service and other expenses	11	58

#### **Transactions with associates**

	2018	2017
In CHF 1,000		
Energy income	24,423	25,407
Service and other income	17,095	18,218
Financial income	644	644
Energy purchases	28	19
Service and other expenses	2,351	2,371

#### **Transactions with other related parties**

	2018	2017
In CHF 1,000		
Energy income	1,212	1,450
Service and other income	2,105	878
Financial income	512	519
Energy purchases	94,566	85,127
Service and other expenses	2,153	1,943

#### 28. Risk assessment

The Board of Directors and Management give the utmost attention and deploy the necessary resources for the valuation and management of risks in order to adhere to the standards of the sector. The management and valuation of the company's risks have been integrated into the company's operating procedures, in order to guarantee the maximum effectiveness.

From a financial point of view AET is exposed to following main risk factors:

**Volume risk:** is the risk associated with the variation in the sales volume, respectively of production volumes compared to forecasts. Its principal cause is the meteorological risk in that the meteorological deviations from the long-term averages cause variations in consumption and production from the hydroelectric plants that are difficult to predict. In the long-term AET manages this risk by diversifying it's supplies with long-term contracts and participations. In the medium to short-term this risk is managed with a gradual rebalancing of the portfolio using updated forecasts and historical data. In addition AET can count on a certain reserve capacity from it's own hydroelectric plants.

**Market risk:** is the risk associated with the variations in the price of energy on the markets and the fluctuation of exchange rates. AET manages this risk by monitoring the evolutions and the expectations of market prices and consequently hedges the positions. The foreign exchange risk is managed through hedging operations. Market risks mostly have an effect on the quantity of energy sold and produced resulting from the volume risk that can not be efficiently hedged in advance because unknown.

**Counterparty risk:** is the risk of loss related to payment default of commercial counterparties. Sales are mainly made to large Swiss and bordering countries power companies. Limits of exposure are fixed for each counterpart, based on their economic and financial situation. Counterparty risk related to the Swiss commercial / distribution activity is managed through the constant monitoring of the receivable positions, the subscription of receivables insurances, the request of bank guarantees or deposits.

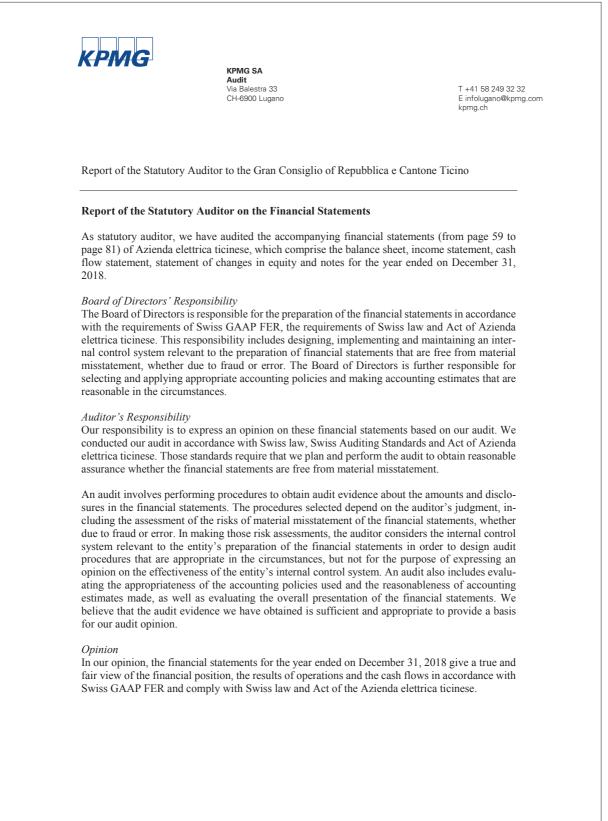
**Regulatory risk:** relates to the introduction or modification of laws, acts or rules at Swiss or European level, which might have an impact on the activity of AET. AET constantly monitors the regulatory developments, adopting the necessary adjustments.

### 29. Subsequent events

2018: no significant event.

2017: no significant event.

# Audit report by KPMG SA on the financial statements



KPMG AG is a subsidiary of KPMG Holding AG, which is a member of the KPMG network of independent firms affiliated with KPMG International Cooperative ("KPMG International"). a Syste lead entity. At indust reserved.



At each control unit monitored by the AET Control centre there is a control cabinet connected to the Control centre. In the photo: the control cabinet at the Verzasca SA power plant in Gordola.

Photo: Atelier Mattei ©Verzasca SA



Operation of the Control centre is entrusted to a team of 16 highly qualified operators, who guarantee the constant presence of two people, 24 hours a day and seven days a week.

# Annexes

# AET Group companies

	Value	Nominal equity at 31.12.2018	Participation at 31.12.2018	Participation at 31.12.2017
		In 1,000	%	%
AKEB Aktiengesellschaft für Kernenergie – Beteiligungen Luzern (AKEB), CH-Luzern				
Nuclear energy participations and offtake rights	CHF	90,000	7.00	7.00
<b>Calore SA</b> , CH-Locarno <i>Thermal energy</i>	CHF	2,000	65.00	65.00
Biomassa Blenio SA, CH-Blenio Biomass thermal energy	CHF	870	22.41	22.41
Capriasca Calore SA, CH-Capriasca Development of a thermal plant	CHF	210	33.33	33.33
Geo-Energie Suisse AG, CH-Zürich Development of geothermal power	CHF	1,900	5.26	5.26
Kraftwerke Mattmark AG (KW Mattmark), CH-Saas Grund Sub-participation through Axpo Trading AG. Hydroelectric power generation	CHF	90,000	8.41	8.41
Lucendro SA, CH-Airolo Hydroelectric power generation	CHF	3,000	100.00	100.00
Metanord SA, CH-Bellinzona Gas distribution	CHF	18,000	33.33	33.33
Metanord Ingegneria SA, CH-Bellinzona Engineering services in favour of Metanord SA	CHF	_1	_1	33.33
Parco eolico del San Gottardo SA (PESG), CH-Airolo Wind power, development and construction of a windpark on St. Gotthard	CHF	1,000	70.00	70.00
Renewable Energy Investments SPC (REI), Grand Cayman Investment vehicle in wind power	EUR	-	_	20.09
<b>Senco Holding SA</b> , CH-Locarno Holding participation into hydroelectric power generation (micro power plants)	CHF	150	65.00	65.00
<b>CEL Bedretto SA</b> , CH-Bedretto Hydroelectric power generation	CHF	200	13.00	13.00
<b>CEL Buseno SA</b> , CH-Buseno Development of a hydroelectric power plant	CHF	100	13.00	13.00
<b>CEL Campo Vallemaggia SA</b> , CH-Campo Vallemaggia Hydroelectric power generation	CHF	400	14.30	14.30
<b>CEL Cauco SA</b> , CH-Cauco Development of a hydroelectric power plant	CHF	100	13.00	13.00
<b>CEL Cerentino SA</b> , CH-Cerentino Hydroelectric power generation	CHF	200	13.00	13.00
<b>CEL Dalpe SA</b> , CH-Dalpe Hydroelectric power generation	CHF	200	11.70	11.70
<b>CEL Lavizzara SA</b> , CH-Lavizzara Hydroelectric power generation	CHF	200	13.00	13.00
<b>Senco Sagl</b> , CH-Locarno Services in favour of hydroelectric power plants promoted by Senco Holding SA	CHF	220	65.00	65.00

<sup>1</sup> merged with Metanord SA

	Value	Nominal equity at 31.12.2018	Participation at 31.12.2018	Participatior at 31.12.2017
		In 1,000	%	%
Società Elettrica Sopracenerina SA (SES), CH-Locarno		16 500	20.00	20.00
Power distribution company	CHF	16,500	30.00	30.00
Energie Rinnovabili Losone (ERL) SA, CH-Losone Biomass thermal energy	CHF	2,700	10.00	10.00
Enerti SA, CH-Monteceneri Service company	CHF	200	9.92	9.92
SES Controlli Sagl, CH-Locarno Service company	CHF	20	12.00	12.00
Società della Funicolare Locarno - Madonna del Sasso SA (FLMS), CH-Locarno Ownership and operation of a funicular	CHF	900	4.09	4.09
Società Locarnese di Partecipazioni e Immobiliare SA (SAP SA), CH-Locarno Real estate company	CHF	2,064	29.99	29.99
SPE Società per Partecipazioni Energetiche SA (SPE), CH-Bellinzona Holding company	CHF	8,000	100.00	100.00
<b>AET Italia Srl</b> , I-Milan Trading of cross-border interconnection capacity	EUR	871	100.00	100.00
<b>CEG Srl</b> , I-Milan Holding and services	EUR	120	100.00	100.00
<b>Bio Elettricità Occimiano Srl (BEO) in liquidazione</b> , I-Milan Biofuel power generation	EUR	-	-	100.00
<b>Biogen Chivasso Srl</b> , I-Milan Biofuel power generation	EUR	20	_2	100.00
<b>Nord Energia SpA</b> , I-Milan Management of cross-border interconnection power line (Merchant Line)	EUR	10,200	40.00	40.00
<b>CMC MeSta SA</b> , CH-Bellinzona Detention of Mendrisio – Stabio cross-border power line	CHF	14,000	40.00	40.00
<b>Quadra Srl in liquidazione</b> , I-Como Main contractor for the construction of biofuel power plants	EUR	-	-	50.00
Swissgrid AG, CH-Aarau Swiss transmission system operator	CHF	319,034	1.67	1.68
<b>TERIS Teleriscaldamento del Bellinzonese SA (TERIS)</b> , CH-Bellinzona Thermal energy from waste	CHF	10,000	60.00	60.00
Terravent AG, CH-Luzern Wind power generation	CHF	16,005	14.06	15.00
Trianel Kohlekraftwerk Lünen GmbH & Co. KG (TKL), D-Aachen Coal power generation, Lünen	EUR	147,944	15.84	15.84

<sup>2</sup> sold in 2018

# Statistical informations

# Production and purchases of AET Group

	Winter	Summer	2018	2017		
In GWh						
Production AET Group						
AET Biaschina	161	253	414	324		
AET Piottino	131	183	314	250		
Lucendro	72	23	95	91		
AET Stalvedro	22	35	57	50		
AET Ofima exchange	7	35	42	43		
AET Ponte Brolla	8	7	15	11		
AET Tremorgio	3	0	3	4		
Biogen Chivasso (CEG Group)	8	3	11	38		
Photovoltaic	1	3	4	3		
Total production AET Group	413	542	955	814		
Production participations (share attributable to AET Group)						
Maggia	74	116	190	276		
Blenio	79	77	156	130		
Verzasca	40	33	73	63		
KW Mattmark	26	30	56	58		
Senco Group	1	3	4	4		
SES Giumaglio	3	4	7	6		
SES Ticinetto	1	1	2	2		
Terravent AG	29	14	43	33		
AKEB	170	171	341	314		
KK Leibstadt	5	6	11	8		
Trianel TKL	370	297	667	557		
Total production participations	798	752	1,550	1,451		
Long-term contracts <sup>1</sup>	309	333	642	665		
Purchases on the market	7,879	7,217	15,096	16,836		
Total	9,399	8,844	18,243	19,766		

<sup>1</sup> Delivery contractualised for more than 5 years

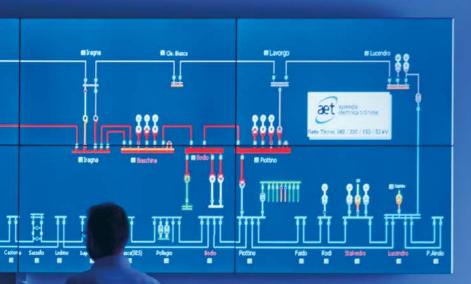
# Supply of AET Group

	Winter	Summer	2018	2017
In GWh				
Sales to distribution companies	1,230	865	2,095	2,154
Sales to end customers	232	195	427	443
Sales on the market	7,902	7,755	15,657	17,117
Own consumption and losses	35	29	64	52
Total	9,399	8,844	18,243	19,766



# Production AET Group and participations





Photos: Foto Atelier Mattei ©Azienda Elettrica Ticinese

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Visual Concept: Lucasdesign SA, Giubiasco Print: Salvioni arti grafiche SA, Bellinzona



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