DECISION OF THE ELECTRICITY AUTHORITY IN SESSION 506 OF 19/12/2016

Decision No. 2 (1110) 2016 Annual Update to the Electricity Rate – Final Decision regarding Electricity Rates for Consumers of the Israel Electric Corporation

By the power vested in it by the Electricity Sector Law, 5756-1996, and all its other legal powers, the Electricity Authority (hereinafter – **the Authority**) hereby updates the recognized costs and rates regarding consumers of the Israel Electric Corporation by the 2016 Annual Update (hereinafter – **the Rate Update Decision**), as follows:

1) Rate update

a) The Authority hereby sets forth the "2016 Annual Update", updating the "Recognized Costs" for the Israel Electric Corporation, in accordance with Decision 1 in Authority Session 289 of 1/2/2010: "Rate base for the production segment for 2010-2014 and updates for the transmission and distribution segments", and the sections specified in this decision.

b) The rate for the average consumer shall increase by 4.63% and the home rate shall increase by 3.69%. Other rates are specified below in this decision.

c) The recognized costs for the different segments are specified in supplement A to this decision and are an integral part thereof.

d) The relevant updated tables of rates, in accordance with such recognized costs, are specified in Supplement B to this decision and are an integral part thereof.

e) The updated rates specified in this decision shall enter into force on 1/1/2017.

f) The next annual update is scheduled for December 2017.

Explanations:

1. This decision reflects an increase in the electricity rate for various consumers, including home consumers, in comparison to the previous annual update. This increase is the result of, among other things, the increase in power consumption compared to the previous year, which amounted to 370 million NIS. This cost contributed to a 1.6% increase in the rate. An additional 1.6% increase is attributed to private providers completing their debt payments to consumers of the Israel Electric Corporation for the system rate.

   The rest of the increase is attributed to the increase in coal prices and to additional general system costs that are included in the rate, as specified in the decision.

2. The current rate update is made in accordance with the existing methodologies of the Authority. In light of changes to the structure of the economy in recent years, the Authority is acting to update these methodologies. For this reason, the assembly shall not update rates again until December 2017. By that date, the Authority plans to implement new methodologies that are better suited for the current market structure, and better reflect the distribution of costs between players in the market.

2) <u>The changes in detail</u>:

<u>A. Annual update 2016: recognized rate of return from active assets for 2016</u>

1. As part of the annual update, the Authority hereby updates the rates used to calculate the yield of assets as follows: (1)
    a. The recognized rate of interest for foreign capital "Shekel Financing Basket AIL" for 2016 shall be 3.83%.(2)
    b. The recognized rate of interest for foreign capital "Increased Interest Financing Basket ATIL" for 2016 shall be 4.96%.(3)
    c. The hedged recognized rate of interest "Average Rate of Interest for Foreign Currencies AIF" (for the purpose of calculating basket-index differences) for 2016 shall be 5.96%.(4)
2. The hedging mechanism established in Authority Decision no. 1 in Session 289 of 1/2/2010 regarding a rate base for the production segment for 2010-2014 (hereinafter – **decision regarding the rate base for the production segment** or **Book of Base Rates**) is hereby cancelled. The hedged capital sum shall remain in force until a new base rate is in force for the production segment.
3. The decision shall enter into force at the time of the annual update for 2016.

Explanations:

1. Authority Decision no. 1 in Session 289 of 1/2/2011 regarding "rate base for the production segment for 2010-2014 and updates to the transmission and distribution segments" and updates to the "Book of Rates Structure", chapter 2, specify that rates of return for foreign capital shall be updated once per year as part of the annual update.
2. "Shekel Financing Basket AIL_t" reflects loans raised in the local capital market for which real Shekel rate of interest is recognized. The Shekel Financing Basket AIL_t is derived from weighting 90% of the average real rate of interest for the preceding year to the update, AIL_{t-1} and 10% of the marginal real rate of interest for the preceding year, MIL_{t-1}, recognized for the purpose of loan re-exchange and investment funding, plus a rate of increase in loans of q=1.5%. The formula for calculating the Shekel Financing Basket is:

$$AIL_t = \frac{[AIL_{t-1} * (1 - L) + MIL_{t-1} * (L + q)]}{(1 + q)}$$

    According to this formula, the AIL rate is determined by the preceding year, while the MIL rate is determined by the average of bonds in an indexed linked channel with an average duration of 10 years and an AA+ rating, quoted by Fair Margin Ltd. for the preceding calendar year.

    The value of the real marginal rate of return MIL_{2015} is 1.52%. The value of the Shekel financing basket AILt for 2016 shall therefore be 3.83%, in comparison with 4.13% in 2015.
3. "Increased Interest Shekel Financing Basket $ATIL_t$" reflects loans raised in the foreign currency abroad for which the Israel Electric Corporation is required to take precautions in order to minimize exposure to foreign currency risks. $ATIL_t$ is derived from weighting 90% of the average real rate of interest for the preceding year to the update, $ATIL_{t-1}$ and 10% of the marginal real rate of interest for the preceding year, $MTIL_{t-1}$, recognized for the purpose of loan re-exchange and investment funding, plus a rate of increase in loans of q=1.5%. The formula for calculating the Increased Interest Shekel Financing Basket is:

$$ATIL_t = \frac{[ATIL_{t-1} * (1 - L) + MTIL_{t-1} * (L + q)]}{(1 + q)}$$

This basket reflects the normal raising costs of the previous year abroad, and includes local interest, plus state risk premium and bank accompaniment costs. The value of the real marginal rate of return $MTIL_{2015}$ is 2.41%. The value of the "Increased Interest Shekel Financing Basket $ATIL_t$" for 2016 is therefore 4.96%, in comparison to 5.29% in 2015.

4. As part of the rate base, the Authority has established a decrease of the hedging mechanism to protect the Israel Electric Corporation against foreign currency risks. This mechanism consists of two components: basket-index differences and real foreign currency interest differences. In order to calculate real foreign currency interest differences, the Authority has established the average recognized interest rate for foreign capital linked to the determining currency basket (hereinafter "AIF"). The average recognized interest rate for foreign capital linked to the determining currency basket (AIF foreign currency interest rate) reflects the cost of loans raised in foreign currency. AIF is derived from weighting 90% of the average recognized interest rate for foreign capital linked to the determining currency basket for the preceding year to the update, AIF_{t-1} and 10% of the marginal foreign currency rate of interest for the preceding year, MIF_{t-1}, recognized for the purpose of loan re-exchange and investment funding, plus a rate of increase in loans of q=1.5%. The formula for calculating the average recognized interest rate for foreign capital linked to the determining currency basket is:

$$AIF_t = \frac{[AIF_{t-1} * (1 - L) + MIF_{t-1} * (L + q)]}{(1 + q)}$$

The MIF rate is determined by bonds in Dollar and Euro likened channels with an average duration of 10 years and AA+ rating, quoted by RBT ltd.

The MID_{2015} rate is 4.32%. MIE_{2015} is 3.00%. The marginal foreign currency interest rate MIF_{2015} is therefore 3.99%. The value of the average recognized interest rate for foreign capital linked to the determining currency basket AIF for 2016 is 5.96%, in comparison to 6.21% in 2015.

1B. Annual update 2016: voluntary shedding using independent generators

1. The Authority recognizes costs incurred by the Israel Electric Corporation in the amount of 24.1 million NIS in the December 2015 prices for arrangements of voluntary shedding using independent generators. These costs include a total of 15.8 million NIS for 2015 and a settling of around 8.3 million NIS for 2014 that were not recognized due to an incomplete report by the Israel Electric Corporation.
2. Interest shall not be paid for the 8.3 million NIS due to the late report, in accordance with section 4 F of Authority Decision made in Session 477 of 26/10/2015.
3. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. Authority Decision no. 1 in Session 145 of 13/7/2004 establishes an arrangement for voluntary shedding using independent generators. This arrangement is intended to provide for situations where the network of an Essential Service Provider is unable to supply all the demand for electricity, by having consumers under the arrangement consume electricity from their own generators, or, alternatively, provide energy to the network from their own generators. As a result, the consumer under the arrangement reduces the demand for electricity from the national electricity system and the probability of a supply failure.
2. As of 31/12/2015, 287 generators in a total capacity of around 280 MW, producing around 5 million kWh, participated in the arrangement. The average response rate to this arrangement by generator producers is 51%, providing on average around 27% of the capacity. This arrangement has been operated for 68 hours this year, 11 operations of 4 hours each, and 4 operations of 6 hours each.
3. Settling for lack of recognition in 2014 in the previous annual update is for the amount of 8.3 million NIS. The settling is a result of offsetting by the Authority for incomplete reporting by the Israel Electric Corporation in the amount of 20% of the cost. Following this decision, the Israel Electric Corporation provided the required clarifications and information. For this reason, the Authority recognizes the remaining sum of the cost of the arrangement for 2014.
4. Costs incurred as a result of the voluntary arrangement shall be reflected in the system administration costs – overall system costs, as these arrangements provide a high degree of reliability to electricity consumers.

1C. Annual update 2016: reimbursement of costs for voluntary shedding arrangement

1. The Authority recognizes costs incurred by the Israel Electric Corporation in the amount of 20.4 million NIS in December 2015 prices for voluntary shedding arrangements in 2015. These costs include a total of 14.0 million NIS for 2015 and a settling of around 6.4 million NIS for 2014 that were not recognized due to an incomplete report by the Israel Electric Corporation.[(1)(2)(3)(4)]
2. Interest shall not be paid for the 6.4 million NIS due to the late report, in accordance with section 4 F of Authority Decision made in Session 477 of 26/10/2015.
3. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. Authority Decision no. 1 in Session 379 of 2012 establishes for the first time an arrangement for voluntary shedding of large consumer. The voluntary shedding arrangement is a tool provided to the system administrator to manage high demand hours when there is risk of supply failure, in order to avoid expensive supply failures. At such risk hours, consumers under the arrangement are called upon to shed consumption. Consumers who shed consumption at such risk hours shall be paid a shedding rate for each shed kWh. The shedding rate changes in accordance with the notification time given to the consumer – the shorter the notification time, the higher the rate. In order to incentivize consumers to participate in the arrangement, they are guaranteed a minimum of operation hours at the beginning of the arrangement.
2. As of 31/12/2015, voluntary shedding arrangements apply to 84 large consumers, and the aggregated nominal load in these arrangements is 304 MW. The arrangement has been operated 12 times during 2015.
3. The cost of the arrangement for 2015 amounts to 14.0 million NIS in December 2015 prices.
4. In a cost inspection of the Israel Electric Corporation conducted by the Authority, it was found that the corporation did not correctly calculate the fine component of the reimbursement formula, for consumers who did not shed consumption. A cost of 0.8 million NIS of the total cost of 14.8 million NIS claimed by the company, was not recognized.
5. Settling for lack of recognition in 2014 in the previous annual update is for the amount of 6.4 million NIS. The settling is a result of offsetting by the Authority for incomplete reporting by the Israel Electric Corporation in the amount of 20% of the cost. Following this decision, the Israel Electric Corporation provided the required clarifications and information. For this reason, the Authority recognizes the remaining sum of the cost of the arrangement for 2014.
6. Costs incurred as a result of the voluntary arrangement shall be reflected in the system administration costs – overall system costs, as these arrangements provide a high degree of reliability to electricity consumers.

1D. Annual update 2016: frequency shedding arrangements

1. The Authority recognizes costs incurred by the Israel Electric Corporation in the amount of 3.5 million NIS in December 2015 prices for frequency shedding arrangements. (1)(2)(3)(4)
2. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. Frequency shedding arrangements are intended to provide protection to the national electricity chain from frequency degradation due to a sudden failure of the production unit. In such case, consumers under the arrangement are shed from the electricity network for short periods of time, in order to provide protection and help stabilize the frequency of the national electricity network.
2. Authority Decision no. 5 in Session 418 of 23/1/2014 establishes a standard for frequency shedding, according to which consumers under the frequency shedding arrangement shall receive a frequency shedding rate of 20 NIS per shed kWh.
3. As of 31/12/2015 there are 37 facilities registered to the arrangement, and the total load available for shedding is 415 MW. The arrangement has been operated 19 times this year due to a frequency drop in the system.
4. Costs incurred as a result of the frequency shedding arrangement shall be reflected in the system administration costs – overall system costs, as these arrangements provide a high degree of reliability to electricity consumers.

1E. Annual update 2016: cost reimbursement for purchasing availability and energy from Independent Power Producers using fossil fuel (hereinafter – IPPs)

1. Settling for 2015 –
   The Authority recognizes costs incurred by the Israel Electric Corporation due to purchases from IPPs during 2015 in the amount of 1,192.8 million NIS (December 2015 prices).[(1)(2)(3)]
2. In order to calculate the rate for 2016, the Authority shall include in the recognized cost a projection of availability and energy purchases from IPPs in the amount of 1,560 million NIS. In the annual update for 2017, the final cost shall be determined, and the difference between the projected recognized cost and the actual recognized cost shall be settled.[(4)]
3. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. Each year, at the time of the annual update, an annual cost projection is made for payments to be made by IEC to independent producers, and the amount recognized for IEC is updated accordingly through the annual update. The Authority then determines the final recognized amount in the next annual update, in accordance with actual purchases made and following cost control. The projection is based on new units that are expected to join the network. After determining the final recognized amount, the difference between the projected recognized amount and the final recognized amount (whether negative or positive) is settled. Such differences are reflected through the "compensation for arrears" mechanism, in accordance with chapter 7 of the production base book approved by assembly decision no. 289 of 1/2/2010.
2. In accordance with section 13 of Authority Decision regarding base rates in Session no. 110 of 1/7/2002, the costs incurred by the Israel Electric Corporation due to purchases from Independent Power Producers shall by updated.

3. The following are the costs incurred due to purchases of availability and energy from IPPs in 2015:

	Energy		**Availability**		**Total cost**
	Million kWh	**Cost (Million NIS)**	**Million kWh**	**Cost (Million NIS)**	
Conventional producers in the transmission segment (EHV) (producers operated by the system administrator)	2,287	529	6,888	477	
Co-generation producers	34	133	-	-	
Diesel fuel oil generator producers	15	11	168	40	
Regular producers in the distribution segment	17	4	-	-	
Total	**2,892**	**677**	**7,056**	**516**	**1,193**
2015 forecast					
Conventional producers in the transmission segment (EHV)					**1,200**
Co-generation producers					
Diesel fuel oil generator producers					
Regular producers in the distribution segment					
Total					**1,200**

4. The following are the projected costs to be incurred due to purchases of availability and energy from IPPs in 2016 (this projection is based on new units that are expected to join the network):

	Energy		**Availability**		**Total cost**
	Million kWh	**Cost (Million NIS)**	**Million kWh**	**Cost (Million NIS)**	
Conventional producers in the transmission segment (EHV)	3,926	705	9,278	668	
All other producers	66	148	168	40	
Total	3,992	852	9,447	708	1,560

The cost of variable availability purchases utilized to provide power to IEC consumers shall be included in the weighted production component. The remaining cost of variable availability purchases shall be included in the system administration rates, as specified in supplement A of Authority Decision no. 4 in Session 471 of 6/8/2015 regarding system administration rates. This shall apply to both the final recognized cost for 2015 and the projected recognized cost for 2016.

1F. Annual update 2016: cost reimbursement for purchasing energy from producers and consumers producing electricity using renewable energy

1. Settling for 2015 –
   The Authority recognizes costs incurred by the Israel Electric Corporation due to purchases of electricity from renewable energy during 2015 in the amount of 1,515 million NIS (December 2015 prices).[(1)(2)(3)(5)]
2. Projected cost of purchases of electricity from renewable energy for 2016, based on the system administrator's load curve:
   In order to calculate the rate for 2016, the Authority shall include in the recognized cost a projection of renewable energy purchases in the amount of 1,705 million NIS.

Explanations

1. Each year, at the time of the annual update, an annual cost projection is made for payments to be made by IEC to renewable energy producers, and the amount recognized for IEC is updated accordingly through the annual update. The Authority then determines the final recognized amount in the next annual update, in accordance with actual purchases made and following cost control. After determining the final recognized amount, the difference between the projected recognized amount and the final recognized amount (whether negative or positive) is settled. Such differences are reflected through the "compensation for arrears" mechanism, in accordance with chapter 7 of the production base book approved by assembly decision no. 289 of February 2010.
2. In accordance with the arrangements made by the Authority for the production of electricity using renewable energy, the costs incurred by the Israel Electric Corporation due to purchases from such producers shall by updated. See Decision no. 1 in Session 216 of 2/6/2008 (small photovoltaic), Decision no. 2 in Session 284 of 28/12/2009 (medium photovoltaic), Decision no. 2 in Session 325 of 24/1/2011 (large photovoltaic), Decision no. 10 in Session 389 of 25/12/2012 (net meter), Decision no. 2 in Session 344 of 27/7/2011 (biogas), Decision no. 1 in Session 275 of 7/9/2009 (small wind) and Decision no. 1 in Session 349 of 10/10/2011 (large wind).

3. The following are the costs incurred due to purchases from renewable energy in 2015:

Technology	Produced energy (kWh)	Cost (NIS)
PV facilities up to 4 kW	10	18
PV facilities 4 to 50 kW	477	477
Total small PV	487	748
Medium solar	523	620
Net meter	0.03	0.01
Total PV	1,009	1,386
Biogas	69	39
Wind turbine	0	0
Total renewable in distribution	1,078	1,425
PV in transmission	150	90
Total	**1,228**	**1,515**

4. The following are the projected costs to be incurred due to purchases of renewable energy in 2016:

Projection for 2016	Million kWh	Cost (million NIS)
Total	1,957	1,705

5. This cost is an integral part of the cost of economic arrangements. It is separated into 3 components, in accordance with Authority Decision no. 4 in Session 471 of 6/8/2015, Supplement A, section 3. b) 4). According to this section, the energy component and the fixed costs component (capital and fixed operating costs) shall be included in the production component, while the premium component shall be included in the system rate.

1G. Annual update 2016: premium cost reimbursement for producers using renewable energy for prevention of pollution (hereinafter "the Premium Arrangement")

1. The Authority recognizes costs incurred by the Israel Electric Corporation due to payments of premium for the prevention of pollution to producers using renewable energy during 2015 in the amount of 3.1 million NIS (December 2015 prices).

Explanations

1. In accordance with Authority Decision no. 3 in Session 145 of 13/7/2004, the Authority has decided to pay a premium to producers using renewable energy for preventing pollution. The cost of such premium to IEC shall be recognized and added to the recognized costs paid to the company.
2. The total cost of the Premium Arrangement is 3.1 million NIS in December 2015 prices. The total production in renewable energy entitled to receive a premium in 2015 amounts to 2.4 kWh.
3. Costs incurred as a result of the Premium Arrangement shall be reflected in the system administration costs, as these arrangements are intended to prevent pollution for the whole economy.

1H. Annual update 2016: reimbursement for a social rate

1. The Authority recognizes costs incurred by the Israel Electric Corporation due to the discount specified in the Electricity Sector Law for necessitous electricity consumers during 2015 in the amount of 252 million NIS.[(1)(2)(3)(4)]
2. The cost reimbursement to the East Jerusalem Electric Corporation for necessitous electricity consumers within its distribution area in 2015, and for regular costs in 2016, shall be provided in the form of a 3.22 Agorot/kWh discount (1.61 Agorot/kWh cost reimbursement for 2015 and 1.61 Agorot/kWh regular payments for 2016) (in December 2015 prices) for the first 150 million kWh of the purchase rate "High Voltage Concentrated Sale" (table 5.2-1 in the Book of Rate Tables). This discount shall be updated at the beginning of each month in accordance with the latest known index at the beginning of the month.
3. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. Section 31A of the Electricity Sector Law (2007 amendment) specifies: "consumers who are entitled to a benefit in accordance with section 2(a)(4) of the Income Security Law, 5741-1980, shall pay a reduced rate of 50% of the home rate for the first 400 kWh consumed each month for home use only… (b)(1) the minister, in consultation with the Minister of Social Affairs and the agreement of the Minister of Finance, may specify additional necessitous groups that would benefit from such reduced payment, in a rate to be determined…".

   This section furthermore specifies that the total discount shall not amount to more than 1.5% of the total payments made by consumers to IEC.
2. This cost amounts to 1.1% of the total recognized cost for rate purposes.
3. Costs incurred as a result of the social rate shall be reflected in the system administration costs – system costs, in accordance with the authority's decision regarding system administration rates published on 6/8/2015.
4. The cost for 2015 in the amount of 251.6 million NIS includes the following discounts:
   a. Cost of discounts to IEC consumers for 2015 in the amount of 249 million NIS. 268,900 IEC consumers benefited from this discount.
   b. Cost of discounts to consumers of the East Jerusalem Electric Corporation in the amount of 2.4 million NIS. 2,000 consumers benefited from this discount.

1I. <u>Annual update 2016: final recognized fuel mix for 2015 and the principles of its calculations</u>

The Authority hereby determines the principles for the calculation of the final fuel mix recognized for the Israel Electric Corporation for 2015:

The recognized fuel basket for the Israel Electric Corporation shall be calculated based on the actual electricity market demand curve for 2015, in accordance with the number of IEC units, as specified in the Book of Base Rates for the production segment 2010, the number of private production units, electricity production in bi-lateral transactions, con-generation and self-production, and renewable energy according to existing regulatory arrangements.

1. Operating dates for new production units in 2015:

Private production units	**Facility type**	**Nominal capacity**	**Updated operating date for final fuel basket**
Enlight	PV extra-high voltage	55	09/08
Arava	PV extra-high voltage	40	23/07
Ashdod Energy	Combined cycle co-generation	65	21/12
Dalia (2 combined cycle units)	Combined cycle	2*456	07/07, 03/09
Noga Paz (transferred to system administrator supervision)	Diesel generator	16	01/05
Ramat Negev (conducted admission tests in 2015)	Co-generation	120	1/2016

<u>Orot Rabin site</u>

Coal unit – Orot Rabin 5, 575 MW, shutdown for the installation of emission reduction facilities from of October 2014 to the end of 2015 (unit no. 2 in table 1, chapter 1 of the Book of Base Rates for the production segment 2010).

2. <u>Operation regime at the Reading site unit</u>

Operating two Reading units in a way that would simulate the operation hours used by the system administrator as a result of congestion in the transmission system.

3. Gas limitations

a) Gas supply from the Tamar gas field:

- Maximum quantity per hour to the electricity market: 40,500 MMbtu per hour.
- Upper limit on gas production per hour:
  - January-September – maximum 60% of all electricity production per hour
  - October-December – maximum 65% of all electricity production per hour
- Maximum quantity per hour: 24,000 MMbtu per hour.
- Excess quantity per hour as follows:
  - 8,000 MMbtu per hour by the end of June 2015
  - 6,000 MMbtu per hour from July to the end of August

- 5,000 MMbtu per hour by the end of the year

b) LNG:

- The recognized quantity shall be determined by actual consumption, and transshipment times of the regasification vessel.

4. Spinning reserve – 600 MW.

5. Unit maintenance:

a) The maintenance plan for 2015 has been optimized (using a simulation to calculate the optimal fuel basket) in accordance with the expected demand known at the beginning of 2015.

b) The maximum number of coal operated units under concurrent maintenance shall not exceed three units, not including unit 5 at the Orot Rabin site that is shut down for the installation of emission reduction facilities.

6. The demand curve

Calculation shall be made by optimization of the cost of fuels and variable costs in accordance with the actual hourly production curve for 2015.

7. Any remaining principles shall be as specified in Authority decision in Session 289 of 1/2/2010, chapter 5 – the fuel mix.

8. The recognized fuel mix

The Authority had conducted a market optimization in order to minimize fuel costs, in accordance with the above principles for calculating the fuel basket, when power production by producers in bi-lateral transactions, co-generation and self-production and renewable energy is in accordance with existing arrangements.

Data for 2015:

	Projection	Final
Total IEC production	48,639	51,014
Total IPP production (bi-lateral + purchases)	15,116	13,033
Total produced energy	63,775	65,302
Peak demand	11,927	12,826

Consequently, the Authority hereby determines the recognized fuel quantities for 2015 as follows:

	Projected fuel mix (btu/kWh)	Final fuel mix (btu/kWh)
Fuel type		
Midway distance coal	2,077	2,319
Rotenberg coal	2,798	2,833
Total coal	**4,875**	**5,152**
Eshkol gas	676	665
Reading gas	6	145
Haifa gas	634	479
Ramat Hovav gas	150	133
Alon Tavor gas	334	284
Tzafit gas	129	132
Hagit gas	326	275
Gezer gas	581	439

Total natural gas	**2,837**	**2,552**
Fuel oil	2	-
Diesel oil	17	84
Total	**7,731**	**7,788.43**

Explanations:

1. Authority Decision no. 1 in Session 289 of 1/2/2010, regarding "Rate base for the production segment for 2010-2014 and updates for the transmission and distribution segments", and updates to the "Rates Structure Book" (hereinafter: the rate base decision for the production segment of February 2010), chapter 5, specify that the fuel mix shall be updated at the end of each year in accordance with the actual load curve, and any differences shall be returned to the public or to IEC, as the case may be.
2. The recognized unit maintenance shall be pre-determined in accordance with the expected demand curve. This method of recognition is intended to reflect maintenance planning in advance and not retroactively, in accordance with the actual demand curve. Recognition of coal units is given provided that the number of concurrent coal units under maintenance is limited to 3, for reasons of human resources. The Orot Rabin 5 unit shall be shutdown throughout the year for installation of emission reduction facilities and will not be included in the maximum 3 units under maintenance. The Orot Rabin 6 unit, whose shutdown for the installation of emission reduction facilities has been postponed to 2016, shall be included in the maintenance program.
3. Market gas limitations – the hourly gas consumption limit for electricity use is 40,500 MMbtu per hour, while the total gas supply limit for the entire economy is 47,500 MMbtu per hour, of which 7,000 MMbtu per hour is related to industry that does not include electricity production. It should be noted that in 2015, there are hours in which the maximum hourly quantity is higher and reaches 49,500 MMbtu, but these hours are few, and are therefore not counted in optimization calculation.
4. Excess costs of LNG consumption, including the cost of losses, shall be included in the system administration costs, as these costs are the result of market gas shortage, and for the purpose of electricity system redundancy.
5. Reading operation regime – a single unit operated under a Must Run operation regime was recognized on different months, due to congestion in the transmission system, in accordance with the operating instructions of the system administrator.

1J. Annual update 2016: pre-determined fuel mix for 2016 (not final) and the principles of its calculations

The Authority hereby determines the principles for the calculation of the projected fuel mix recognized for 2016:

1. The recognized fuel basket for the Israel Electric Corporation shall be calculated based on the projected electricity market demand for 2016, in accordance with the number of IEC units, as specified in the Book of Base Rates for the production segment 2010, the number of private production units, electricity production in bi-lateral transactions, co-generation and self-production, and renewable energy according to existing regulatory arrangements.
2. Operating dates for different production units expected to operate this year, for the purpose of determining the fuel mix for 2016:

Private production units	Facility type	Nominal capacity	Updated operating date for final fuel basket
Enxco Israel	PV extra-high voltage	50	01/05
Nevatim Israel	PV extra-high voltage	35	01/03
Ashalim Center PV	PV extra-high voltage	30	01/11
The Dead Sea	Combined cycle co-generation	230	01/05
Ramat Negev	Co-generation	120	01/01
IPP Delek Sorek	Conventional combined cycle	140	01/05

3. Projection of gas consumption in the fuel basket of 2016:
    a) Gas supply from the Tamar gas field:
        - Maximum quantity per hour to the electricity market: 40,500 MMbtu per hour.
        - Upper limit on gas production per hour: 65% of all electricity production per hour.
        - Maximum quantity per hour: 24,000 MMbtu per hour.
    b) LNG, as follows:
        1) Maximum hourly production: 20,000 MMbtu per hour
        2) Operating minimum: 2,500 MMbtu per hour
4. Coal reduction:
   Reduction of production using coal by 15% in comparison with 2015. This reduction was made during the transition seasons (March to July and September to December) by giving priority to production using gas from the Tamar gas field over production using coal. During the summer and winter, production using coal continued in accordance with the general loading.
5. Spinning reserve: 600 MW
6. Any remaining principles shall be as specified in Authority decision in session 289 of 1/2/2010, chapter 5 – the fuel mix.

7. The projected fuel mix for 1/1/2016 to 31/12/2016 is:

Fuel type	Btu / kWh
Midway distance coal	2,100
Rotenberg coal	2,681
Total coal	**4,781**
Eshkol gas	741
Reading gas	13
Haifa gas	577
Ramat Hovav gas	243
Alon Tavor gas	256
Tzafit gas	135
Hagit gas	547
Gezer gas	520
Total natural gas	**3,031**
Fuel oil	-
Diesel oil	85
Total	**7,896**

Explanations:

1. This fuel basket is calculated in part based on demand projections prepared by the Israel Electric Corporation. Authority Decision no. 1 in Session 289 of 1/2/2010, regarding "Rate base for the production segment for 2010-2014 and updates for the transmission and distribution segments", and updates to the "Rates Structure Book" (hereinafter: the rate base decision), chapter 5, specify that the fuel mix shall be updated at the end of each year in accordance with the actual load curve, and any differences shall be returned to the public or to IEC, as the case may be.
2. The optimal fuel mix for 2016 was calculated based on the expected market demand curve for this year, considering power production by private producers under various arrangements. The calculation is based on market demand in order to recognize the normative and optimal cost of energy production in the market, considering various limitations and arrangements.
3. The demand forecast is based on the following parameters:

	Production forecast for 2016
Total energy (GWh)	**65,609**
Expected peak demand (MW)	12,371

1. The market limit on production from natural gas is intended to maintain system survivability in case of gas supply failure by the gas supplier, and to allow a gradual transfer to an alternative fuel.
2. Market gas limitations – the hourly gas consumption limit for electricity use is 40,500 MMbtu per hour, while the total gas supply limit for the entire economy is 47,500

MMbtu per hour, of which 7,000 MMbtu per hour is related to industry that does not include electricity production.

3. Excess costs of LNG consumption shall be included in the system administration costs, as these costs are the result of market gas shortage, and for the purpose of electricity system redundancy. The quantities in the fuel mix for the production of electricity do not include LNG losses on the regasification vessel.

4. Given these premises, the distribution of electricity production is as follows:

	GWH	Percentage of production out of the total market production
Production by the Israel Electric Corporation	44,569	68%
Production by independent producers (bi-lateral + purchases)	21,040	32%
Total market production	65,609	100%

The system administrator's production forecast for photovoltaic facilities has been updated since December 2015 with actual data up to September 2016 (the remaining months of the forecast were not changed), reducing it by 0.38 TWh. At this stage, the production component has been updated in accordance with the estimated effect of this updated forecast, provided to the Authority near the time of publishing the hearing.

1K. Annual update 2016 – recognized assets (recognized cost of active assets) for 2016:

1. **Cost of conversion to gas**

   The Authority hereby determines that the cost of conversion to gas of the "Haifa – Kitorit" unit – unit no. 5 in table 1 of the Book of Base Rates shall be updated as follows: Following the completion of the company's cost control procedure, a cost for conversion to gas is recognized in the amount of 37 million NIS in addition to the cost recognized in the previous annual update, so that the updated recognized cost for conversion to gas for the unit amounts to 245 million NIS (not including pipes and connection fees).

2. **Investment in operating power station**

   In this update, recognition is given to investment in operating power stations due to environmental requirements. The clauses of this recognition are as follows:

   a. **Cost of establishing a wastewater purification facility at the Orot Rabin site**

      The Authority recognizes the costs of establishing a wastewater purification facility at the Orot Rabin site in the amount of 7.8 million NIS, with an operating date of 31/112/2014, as follows:

      1. "Orot Rabin A" unit – unit no. 1 in table 1 of the Book of Base Rates – a recognized cost of 5.2 million NIS;
      2. "Orot Rabin B" unit – unit no. 2 in table 1 of the Book of Base Rates – a recognized cost of 2.6 million NIS.

b. **Cost of installing gas monitoring devices in power station chimneys**

The Authority recognizes the costs of installing gas monitoring devices in the company's power station chimneys in the amount of 39.5 million NIS, with an operating date of 31/12/2012, as follows:

Production unit	**Unit no. in the Book of Base Rates**	**Recognized cost (million NIS, 12/2006 prices)**
Haifa C	Table 1 / no. 5	1.9
Combined Cycle 3	Table 2 / no. 6	1.3
Combined Cycle 4	Table 2 / no. 7	1.3
Reading D	Table 1 / no.7	1.1
Gezer 11	Table 1 / no. 11	2.2
Gezer 30	Table 2 / no. 4	0.6
Gezer 40	Table 2 / no. 5	0.6
Eshkol C D (units 6-9)	Table 1 / no. 6	4.6
Eshkol Combined Cycle 12	Table 2 / no. 1	0.5
Rotenberg 1-2	Table 1 / no. 3	1.0
Rotenberg 3-4	Table 1 / no. 4	2.0
Orot Rabin 1-4	Table 1 / no. 1	1.8
Orot Rabin 5-6	Table 1 / no. 2	1.8
Alon Tavor 1-2	Table 1 / no. 13	1.2
Alon Tavor 34	Table 2 / no. 2	1.5
Hagit 34 + 56	Table 1 / no. 8	4.8
Hagit 2	Table 2 / no. 8	0.6
Tzafit 1-2	Table 1 / no. 5	1.2
Tzafit 34	Table 2 / no. 3	1.5
Ramat Hovav 1 + 2	Table 1 / no. 10	3.0
Ramat Hovav 34	Table 1 / no. 9	0.6
Ramat Hovav 6	Table 2 / no. 11	1.5
Ramat Hovav 7	Table 2 / no. 12	1.5
Ramat Hovav 89	Table 2 / no. 13	1.5
Total		**39.5**

c. **Costs of installing silencers in jet units**

The Authority recognized the costs of installing silencers in the jet units Eilat, Kanarot, Hartov and Haifa in the amount of 16.6 million NIS, with an operating date of 31/12/2013.

3. The following tables in the Book of Base Rates 2010 shall be updated according to sections 1 and 2 above:

Table 3: End of the year reduced cost for old production units in 2009 to 2016
(In million NIS, 31/12/2006 prices)

Production units[(1)]	**Site name**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
1,2	Orot Rabin	4,277	3,801	3,348	2,960	2,650	2,427	2,207	1,993
3,4	Rotenberg	7,358	6,901	6,442	5,986	5,526	5,067	4,608	4,149
5	Haifa	43	37	32	252	198	144	90	36
6	Eshkol	643	606	566	531	490	450	410	370
7	Reading	252	231	209	187	165	142	120	97
8	Hagit	1,205	1,085	965	850	729	608	488	367
9,10	Ramat Hovav	449	471	396	324	247	172	100	28
11	Gezer	1,108	1,038	968	900	830	760	690	621
12	Tzafit	96	100	77	57	34	12	0	0
13	Alon Tavor	130	135	112	91	68	45	21	0
14-25	Other gas turbines	218	202	185	168	167	133	116	98
Total		**15,779**	**14,608**	**13,300**	**12,304**	**11,105**	**9,960**	**8,849**	**7,757**

Notes:
(1) See Table 1.

Table 4: Annual average cost for old production units in 2010 to 2016
(In million NIS, 31/12/2006 prices)

Production unit[(1)]	**Site name**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
1,2	Orot Rabin	4,309	3,574	3,154	2,805	2,538	2,317	2,100
3,4	Rotenberg	7,129	6,671	6,214	5,756	5,297	4,837	4,378
5	Haifa	40	34	142	225	171	117	63
6	Eshkol	625	586	548	510	470	430	390
7	Reading	242	220	198	176	154	131	109
8	Hagit	1,145	1,025	907	789	669	548	427
9,10	Ramat Hovav	460	434	360	286	210	136	64
11	Gezer	1,073	1,003	934	865	795	725	655
12	Tzafit	98	88	67	45	23	5	0
13	Alon Tavor	133	129	102	79	56	33	11
14-25	Other gas turbines	210	194	176	167	150	124	107
Total		**15,194**	**13,954**	**12,802**	**11,704**	**10,532**	**9,404**	**8,303**

Notes:
(1) See Table 1.

Table 5: Annual depreciation cost for old production units in 2010 to 2016

(In million NIS, 31/12/2006 prices)

Production unit[(1)]	Site name	2010	2011	2012	2013	2014	2015	2016
1,2	Orot Rabin	481	453	392	309	232	219	214
3,4	Rotenberg	459	459	459	459	459	459	459
5	Haifa	6	6	42	54	54	54	54
6	Eshkol	40	40	40	40	40	40	40
7	Reading	22	22	23	23	23	23	23
8	Hagit	120	120	120	121	121	121	121
9,10	Ramat Hovav	71	76	76	76	75	72	72
11	Gezer	70	70	70	70	70	70	70
12	Tzafit	22	22	22	22	22	12	0
13	Alon Tavor	23	23	23	23	23	23	21
14-25	Other gas turbines	17	17	17	17	34	17	17
Total		**1,331**	**1,308**	**1,284**	**1,215**	**1,153**	**1,110**	**1,092**

Notes:
(1) See Table 1.

Table 6: Annual cost of investment in old production units related to operation by gas[(1)] in 2004 to 2016

(In million NIS, 31/12/2006 prices)

Production unit[(1)]	Site name	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
5	Haifa									261				
6	Eshkol	338												
7	Reading		193											
8	Hagit						159							
9,10	Ramat Hovav							91						
11	Gezer						295							
12	Tzafit							25						
13	Alon Tavor							27						
Total		**338**	**193**				**454**	**143**		**261**				

Notes:
(1) Including investment in "conversion to gas" and the part of the investment in "gas pipes and PRMS gas connection fees" related to old LC production units.

Table 7: Recognized cost of construction at the time of normative operation and the recognized reduced cost at the end of the year of new production units[(1)] in 2009 to 2016

(In million NIS, 31/12/2006 prices)

Production unit number	Unit name	Recognized construction cost at the time of normative operation[(2)]	31.12.09	31.12.10	31.12.11	31.12.12	31.12.13	31.12.14	31.12.15	31.12.16
1	Eshkol stage A	447	332	314	297	279	261	243	225	207
2	Alon Tavor stage A	512	355	337	369	349	328	306	285	264
3	Tzafit stage A	451	343	381	362	345	327	309	290	272
4	Gezer 3 Stage A Stage B	878 860	396 767	377 730	358 693	339 656	320 619	301 582	281 545	262 508
5	Gezer 4 Stage A Stage B	479 867	406 800	387 762	367 724	349 686	329 648	310 610	291 573	272 535
6	Haifa 3	1,275	0	0	0	1,231	1,180	1,129	1,078	1,027
7	Haifa 4 Stage A Stage B	541 758	0 0	487 0	503 747	482 714	461 682	439 650	417 618	395 586
8	Hagit 2	1,232	1,102	1,052	1,002	952	902	852	801	751
9	Eshkol stage B	747	612	579	547	514	481	448	415	382
10	Alon Tavor stage B	895	838	794	751	708	664	621	578	535
11	Ramat Hovav ("emergency") stage A	305	283	286	274	263	251	239	227	214
12	Ramat Hovav ("emergency") stage A	305	284	287	275	264	252	240	227	215
13	Ramat Hovav ("emergency") stage A	639	0	599	575	553	563	537	511	486
14	Tzafit stage B	913	0	0	0	897	850	802	754	706
15	Eshkol ("emergency") stage A	643	0	583	559	536	559	533	507	481
16	Hagit ("emergency") stage A	627	0	588	564	540	545	520	494	469
17[(3)]	Alon Tavor ("emergency") stage A	515								

18[3]	Eshkol ("emergency") stage B	956	0	0	0	0	936	892	849	805
19[3]	Hagit ("emergency") stage B	939	0	0	0	0	923	880	837	795
20[3]	Ramat Hovav ("emergency") stage B	910	0	0	0	0	907	866	824	783
21[3]	Alon Tavor ("emergency") stage B	947								
Total			**6,518**	**8,544**	**8,966**	**10,657**	**12,987**	**12,307**	**11,627**	**10,948**

Notes:

(1) Including investment in gas pipes "PRMS" gas connection fees related to new production units as specified in Table 10 below.

(2) Not including a land component.

(3) The recognized construction cost at the time of normative operation of units 17 to 21 shall be calculated on the basis of prices quoted in GTH or derived therefrom, as specified in subsections (e)(4) and (e)(6).

Table 8: Average annual recognized reduced cost of new production units in 2010 to 2016

(In million NIS, 31/12/2006 prices)

Production unit number	Unit name	2010	2011	2012	2013	2014	2015	2016
1	Eshkol stage A	323	305	288	270	252	234	216
2	Alon Tavor stage A	346	345	359	338	317	296	274
3	Tzafit stage A	362	371	354	336	318	299	281
4	Gezer 3 Stage A Stage B	386 749	367 711	348 674	329 637	310 600	291 563	272 526
5	Gezer 4 Stage A Stage B	396 781	377 743	358 705	339 667	320 629	301 592	281 554
6	Haifa 3	0	0	1,114	1,205	1,154	1,103	1,052
7	Haifa 4 Stage A Stage B	421 0	478 255	492 731	471 698	450 666	428 634	406 602
8	Hagit 2	1,077	1,027	977	927	877	826	776
9	Eshkol stage B	596	563	530	497	464	431	398
10	Alon Tavor stage B	816	773	729	686	643	600	556
11	Ramat Hovav ("emergency") stage A	283	280	269	257	245	233	220
12	Ramat Hovav ("emergency") stage A	285	281	270	258	246	234	221
13	Ramat Hovav ("emergency") stage A	83	587	564	557	550	524	499
14	Tzafit stage B	0	0	303	873	826	778	730
15	Eshkol ("emergency") stage A	298	571	547	526	546	520	494
16	Hagit ("emergency") stage A	249	576	552	539	532	507	482
17(1)	Alon Tavor ("emergency") stage A	0	0	0	0	0	0	0
18(1)	Eshkol ("emergency") stage B	0	0	0	440	914	871	827

19[(1)]	Hagit ("emergency") stage B	0	0	0	352	901	859	816
20[(1)]	Ramat Hovav ("emergency") stage B	0	0	0	72	886	845	803
21[(1)]	Alon Tavor ("emergency") stage B	0	0	0	0	0	0	0
Total		**7,451**	**8,613**	**10,164**	**11,278**	**12,647**	**11,967**	**11,288**
Notes: (1) See note 3 in Table 7.								

Table 9: Recognized annual depreciation cost of new production units in 2010 to 2016

(In million NIS, 31/12/2006 prices)

Production unit number	Unit name	2010	2011	2012	2013	2014	2015	2016
1	Eshkol stage A	18	18	18	18	18	18	18
2	Alon Tavor stage A	18	19	21	21	21	21	21
3	Tzafit stage A	17	18	18	18	18	18	18
4	Gezer 3 Stage A Stage B	19 37	19 37	19 37	19 37	19 37	19 37	19 37
5	Gezer 4 Stage A Stage B	19 38	19 38	19 38	19 38	19 38	19 38	19 38
6	Haifa 3	0	0	45	51	51	51	51
7	Haifa 4 Stage A Stage B	17 0	20 11	22 32	22 32	22 32	22 32	22 32
8	Hagit 2	50	50	50	50	50	50	50
9	Eshkol stage B	33	33	33	33	33	33	33
10	Alon Tavor stage B	43	43	43	43	43	43	43
11	Ramat Hovav ("emergency") stage A	12	12	12	12	12	12	12
12	Ramat Hovav ("emergency") stage A	12	12	12	12	12	12	12
13	Ramat Hovav ("emergency") stage A	3	24	24	25	26	26	26
14	Tzafit stage B	0	0	16	48	48	48	48
15	Eshkol ("emergency") stage A	12	24	24	24	26	26	26
16	Hagit ("emergency") stage A	10	24	24	24	25	25	25
17(1)	Alon Tavor ("emergency") stage A	0	0	0	0	0	0	0
18(1)	Eshkol ("emergency") stage B	0	0	0	20	44	44	44
19(1)	Hagit	0	0	0	16	43	43	43

	("emergency") stage B							
20[(1)]	Ramat Hovav ("emergency") stage B	0	0	0	3	41	41	41
21[(1)]	Alon Tavor ("emergency") stage B	0	0	0	0	0	0	0
Total		**359**	**423**	**508**	**588**	**680**	**680**	**680**
Notes: (1) See note 3 in Table 7.								

Table 10: Cost of the annual investment part in "gas pipes" and PRMS gas connection fees in sites containing new production units[(1)] in 2004-2016

(In million NIS, 31/12/2006 prices)

Production unit number	Unit name	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Eshkol Stage A	10												
2	Alon Tavor Stage A								51					
3	Tzafit Stage A							55						
4	Gezer 3 Stage A				18									
5	Gezer 4 Stage A					18								
6	Haifa 3 Stage A									36				
7	Haifa 4 Stage A								36					
8	Hagit						31							
11	Ramat Hovav Emergency Stage A - E							15						
12	Ramat Hovav Emergency Stage A - E							15						
13	Ramat Hovav Emergency Stage A - F										35			
15	Eshkol Emergency Stage A										48			
16	Hagit Emergency Stage A										29			
Total		**10**			**18**	**18**	**31**	**85**	**87**	**36**	**112**			

Notes:

(1) The cost of investment in "gas pipes and PRMS gas connection fees" is included in the recognized construction cost specified in Table 7 above. The investment cost refers only to Stage A of the combine cycle, as Stage B adds no marginal cost in gas pipes and gas connection fees investment.

Table 11: Average annual reduced cost of all production units[(1)] in 2010 to 2016 prior to the adjustment required in accordance with subsections (a) and (b) and section 1.4

(In million NIS, 31/12/2006 prices)

Site name	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Orot Rabin	4,039	3,574	3,154	2,805	2,538	2,317	2,100
Rotenberg	7,129	6,671	6,214	5,756	5,297	4,837	4,378
Haifa	461	768	2,479	2,600	2,441	2,282	2,123
Eshkol	1,842	2,026	1,914	2,243	2,647	2,486	2,326
Reading	242	220	198	176	154	131	109
Hagit	2,471	2,628	2,436	2,608	2,979	2,740	2,501
Ramat Hovav	1,111	1,582	1,462	1,430	2,137	1,971	1,807
Gezer	3,385	3,201	3,020	2,838	2,655	2,471	2,288
Tzafit	460	460	724	1,255	1,166	1,082	1,011
Alon Tavor	1,295	1,242	1,190	1,104	1,016	928	841
Other gas turbines	210	194	176	167	150	124	107
Total	**22,645**	**22,567**	**22,966**	**22,982**	**23,179**	**21,371**	**19,591**

Notes:
(1) See note 3 in Table 7.

Table 12: Annual depreciation cost of all production units[(1)] in 2010 to 2016 prior to the adjustment required in accordance with subsection (b) and section 1.4

(In million NIS, 31/12/2006 prices)

Site name	2010	2011	2012	2013	2014	2015	2016
Orot Rabin	481	453	392	309	232	219	214
Rotenberg	459	459	459	459	459	459	459
Haifa	22	37	140	159	159	159	159
Eshkol	103	115	115	135	161	161	161
Reading	22	22	23	23	23	23	23
Hagit	180	194	194	211	239	239	239
Ramat Hovav	98	124	124	129	167	164	164
Gezer	183	183	183	183	183	183	183
Tzafit	39	40	56	89	89	78	66
Alon Tavor	85	86	87	88	88	88	86
Other gas turbines	17	17	17	17	34	17	17
Total	**1,690**	**1,731**	**1,791**	**1,803**	**1,833**	**1,790**	**1,772**

Notes:
(1) See note 3 in Table 7.

Explanations

1. **Updates to the gas conversion costs of the Haifa C unit**

   In the annual update of 2014, the Authority has recognized a cost of conversion to gas in the amount of 208 million NIS, following a cost control procedure as well as a cost analysis of other stations. In light of deviations in comparison with other gas conversion works conducted on other company sites, the recognized cost has been set as that of the gas conversion project conducted at the Reading site, as basis for the cost control of the company's deviations in Haifa.

   Following this decision, the company applied to the Authority with a request to recognize the rest of the costs that were not recognized for the Haifa site (around 96 million NIS), on the grounds of two main arguments:

   a. The requirements by authorities to limit polluting emissions have been more severe at the Haifa site than at other sites, leading to higher costs at Haifa;
   b. There are technological differences between Haifa C and other units that were converted to gas, and these differences justify a higher investment in Haifa.

   Following the inspection of the company's data and other references provided by the company in support of its claims, no factual basis was found to support the company's first claim regarding more severe environmental requirements in Haifa during the planning and construction of the project. The company later fully retracted this claim.

   Regarding the company's second claim, the conclusion of the professional team was that, in spite of repeated requests by the Authority to receive detailed information attesting any technological differences and costs involved, the company failed to supply comprehensive data in support of its claim, except by way of a verbal explanation regarding different burning methods in these units in comparison with the units at the Reading site. Furthermore, the company did not present separate requests to recognized costs regarding its claims (environmental and technological), and since it later retracted

one of the two claims, it is not possible to estimate what part of the request is supported by evidence and what part is not. In light of this, there is no justification to recognize the total additional cost requests by the company.

Notwithstanding the above, the professional team found that in comparing the costs of the project at the Haifa site with those of the project at the Reading site (the reference project), the following adjustments should be made:

a. Between the times in which equipment has been purchased for the Reading conversion project (2001-2002) and for the Haifa site project (2004-2005), the Euro (the main currency of the purchased equipment) exchange rate has risen by about 50%. As a result, the equipment cost in Haifa was higher than in Reading. The Authority therefore recognizes an additional cost of equipment in the amount of **30 million NIS** as requested by the company;
b. Between the times in which the projects were constructed, the cost of an average hour of labor of the company's employees has increased by 9%. The Authority therefore recognizes an additional cost in the sections related to planning and construction by company employees in the total amount of **7 million NIS**.

In summary, an additional cost of **37 million NIS** is hereby recognized. It is important to note that the company has been give numerous opportunities to provide data and references and present its claims in detail. Since all the information received from the company has been thoroughly analyzed by the Authority's professional team, the cost control procedure for this project has been completed. The Authority shall not discuss any further requests by the company to recognize additional costs beyond the costs recognized in this decision.

2. **Investments in operating power stations**

a. Cost of wastewater purification facility at the Orot Rabin site

In 2008, following a request by authorities regarding the quality of treated wastewater in the area of the Orot Rabin site, there was a need to upgrade the site's existing facility, built in the early 1990s. The company had conducted a study of a possible alternative, and reached the conclusion that this alternative (connecting to the Hadera municipality sewage system) was more expensive. An inspection of the company's report and a cost control by an Authority's professional team found that the company had examined possible alternative as required and chose the best one. The Authority therefore recognizes the costs of upgrading the facility between 2009 and 2014 in the amount of **7.8 million NIS**, with a normative operating date of 31/12/2014.

b. Cost of installing gas monitoring devices in power station chimneys

In accordance with the provisions of a personal order issued to the company on 26/12/2010, the company was required by the Ministry of Environmental Protection to install pollution monitoring facilities and continuously monitor the chimneys of its production units.

As part of the company's cost control by the Authority's team, significant deviations were found in the number of work hours in comparison with other sites. For example, at the Eshkol site, the number of employee work hours invested per installed device was 171% higher than at Gezer and Reading, while at Orot Rabin, the number of work hours per device was 28% higher than the Rotenberg site. The number of company work hours at the Eshkol and Reading sites were therefore recognized in accordance with the number of work hours in the Gezer/Reading and Rotenberg sites, respectively.

The total recognized cost for installing monitoring devices amounts to **39.5 million NIS**, with a recognized operating date of 31/12/2012. Costs have been allocated in accordance with the quality and quantity of devices in each unit, and their value has been depreciated until the end of the life expectancy of each unit. In facilities already fully depreciated, depreciation shall be recognized for one year.

c. Cost of installing silencers in jet units

Inspections conducted in residential areas near the Eilat, Kanarot, Hartov and Haifa jet turbines have shown that when these units are in operation, the registered noise levels may exceed the levels specified in the Hazard Prevention Regulations (unreasonable noise), thus preventing their use. In order to continue operating these units, in particular, during power shortages and emergencies, the company has acquired and installed silencers between 2010 and 2013, as follows:

1. GT Eilat – 1 unit;
2. GT Kanarot – 4 units;
3. GT Hartov – 2 units;
4. GT Haifa – 4 units.

Following the control procedure, the Authority recognized the full cost of the installation of these silencers in the amount of **16.6 million NIS**, with a recognized operating date of 31/12/2013. Since the normative depreciation period of these four units has ended, full depreciation cost is recognized for one year.

1L. Annual update 2016: system administration rates

In accordance with Authority Decision no. 4 (989) – Determining rates for administration services of the electricity system (system rates) (hereinafter: the System Rates Decision), the Authority hereby updates the system rates as follows:

1. The recognized costs of system services shall be updates in accordance with the following table, based on the system cost forecast for 2016 as well as compensation for arrears in 2015, in accordance with section 1N of this decision:

	Coal reduction in production component alternative	Million NIS	Agorot / kWh
	Administrative costs	251	0.42
	Compensation for arrears	-109	-0.18
	Administrative costs + compensation for arrears	142	0.24
System balance	Fuel cost spinning reserve 600	149	0.25
	Capital and operation cost spinning reserve 600	227	0.38
	Pumped storage	0	-
	Backup – shortage management arrangements up to 4 hours	48	0.08
	Total system balance services	**424**	0.70
Backup service	Generation backup	688	1.14
	Total backup services	**688**	**1.14**
General system services	Arrangements cost 241	283	0.47
	Obligation to purchase renewable energy and co-generation	1379	2.29
	Additional cost due to obligation to diversify fuels using coal stations		-
	Additional cost of fuels due to limitations placed on the electricity market and fixed and variable LNG costs	568	0.94
	Examining production capability with secondary fuel	111	0.18
	Acceptance tests using fuel oil for new units	23	0.04
	Social rate	252	0.42
	Total general system services	**2,616**	**4.34**
Total		**3,870**	**6.43**

2. System costs are calculated in accordance with the order of the Ministry of Energy of 31/12/2015, regarding production reduction in coal stations; alternatives for the installation of emission reduction facilities for 2016 are calculated in accordance with section B. 3. c) of the decision regarding system administration rates in Session 471 of 6/8/2015.
3. The total projected electricity consumption for 2016 is 60,376 GWh.

4. The Authority hereby updates table 8.1-1 System Administration Service Rates:

Table 8.1-1: System Administration Service Rates – in Agorot per consumed kWh

		Administrative cost	System balance	Backup services	General system services	Total
Winter	Low	0.24	0.70	0.84	4.34	6.12
	Mid	0.24	0.70	1.63	4.34	6.92
	Peak	0.24	0.70	2.85	4.34	8.13
Transition	Low	0.24	0.70	0.72	4.34	6.00
	Mid	0.24	0.70	0.92	4.34	6.20
	Peak	0.24	0.70	1.18	4.34	6.47
Summer	Low	0.24	0.70	0.71	4.34	5.99
	Mid	0.24	0.70	1.15	4.34	6.44
	Peak	0.24	0.70	2.99	4.34	8.27
Total		**0.24**	**0.70**	**1.14**	**4.34**	**6.43**

Explanations:

1) In accordance with the System Rates Decision (Authority decision in Session 471 of 6/8/2015), once per year, at the date of the annual update, the recognized costs of system administration services shall be updated, through the methods specified in the decision, as follows:
   a) Regarding the ending year: in accordance with the actual data and parameters referring to that year – the recognized costs for the ending year shall be updated in accordance with the actual values in comparison with the values projected in the previous year, inducing electricity demand and techno-economic limitations (fuel prices, gas quantities and demand). The supply and availability of units shall be determined in accordance with normative values.
   b) Regarding the current year: based on data and parameter projections for the current year.

      Any cost difference for a specific year between the projection based calculation specified in section b) and the actual cost specified in section a) (whether negative or positive) shall be returned to the system administrator or the suppliers, as the case may be, through the mechanism of "compensation for failure to regularly update the rate", specified in the decision regarding the production case rate of February 2010.

   The Authority therefore sets the rates in this annual update.

2) Below are the main parameters:

	2015 projection					2015 actual						2016 projection	
	January-June	July-August	September	October-November	December	January-June	July	August	September	October-November	December	January-April	May-December
Total market nominative load	15,475	15,892	16,309	16,488	16,678	14,725	15,093	15,181	15,607	15,637	15,702	15,767	15,567
Household peak demand during peak hour	12,800					12,826						12,200	
Peak demand hour date	02/08/2015					9/9/2015 15:00							
Total market consumption (GWh)	60,023					60,376						60,229	
Total market production (GWh)	63,775					65,302						65,609	
Renewable energy production (GWh)	1,195					1,228						1,957	
PV renewable energy production (GWh)	1,105					1,159						1,561	
Total connected load (MW) – co-generation and production	420					540						890	
Co-generation production + self-production (GWh)	3,903					3,493						5,731	
Total cost of renewable energy (million NIS)	1,508					1,515						1,705	
Total premium for renewable energy	1,312					1,121						1,376	
Renewable energy (million NIS)	196					394						328	

3) The Authority has re-calculated the costs of system services for 2015 in accordance with the actual values. Below are the retrospective costs for 2015:

		Million NIS	Agorot / kWh
	Administrative costs	251	**0.42**
System balance	Fuel cost spinning reserve 600	257	0.43
	Capital and operation cost spinning reserve 600	165	0.27
	Pumped storage	0	-
	Backup – shortage management arrangements up to 4 hours	0.14	83
	Total system balance services	**504**	**0.83**
Backup service	Generation backup	333	0.55
	Total backup services	**333**	**0.55**
General system services	Arrangements cost 241	287	0.48
	Obligation to purchase renewable energy and co-generation	1123	1.86
	Additional cost due to obligation to diversify fuels using coal stations		-
	Additional cost of fuels due to limitations placed on the electricity market and fixed and variable LNG costs	936	1.55
	Examining production capability with secondary fuel	16	0.03
	Acceptance tests using fuel oil for new units	-95	-0.16
	Social rate	247	0.41
	Total general system services	**2,514**	**4.16**
Total		**3,603**	**5.97**

4) Fixed LNG costs include the costs of operation, leasing and losses that are not dependent on the consumed quantity, in a total amount of 274 million NIS for 2015, and a projected amount of 274 million NIS for 2016.

5) The system administrator services cost included are derived from the costs of fuel and production, and shall be deducted from the production rate and collected through the system administration rates.

6) The costs of examining secondary fuel production capabilities are determined by the actual quantity of oil fuel consumed. The costs that were determined at the beginning of the year were determined in accordance with normative costs, and by the rule that an oil fuel capable unit shall be operated at least once per month using oil fuel, in order to preserve its secondary fuel operation capability. An examination conducted by the Authority found that this has rarely been done in reality. The costs were therefore determined by actual operations, with an operating time of one hour each time.

1M. Annual update 2016: electricity consumption distribution update

1. The Authority updates the consumption distribution of all consumer groups for the purpose of calculating consumer rates, in accordance with the projected distribution for 2016.
2. Table 10.5-1 in the Book of Rate Structure shall be updated in accordance with the following table:[(1)(2)]

Table 10.5-1: Electricity Consumption Distribution by IEC Rate Groups for 2016:

		LTR EHV	LTR HV CS	LTR HV	Bulk HV	LTR LV CS	Bulk LV	LTR LV	Light	General	Home	Total
Winter	Low	0.56%	0.66%	4.15%	0.77%	0.05%	0.02%	2.69%	0.05%	0.87%	4.93%	14.74%
	Mid	0.01%	0.08%	0.37%	0.11%	0.01%	0.00%	0.30%	0.01%	0.11%	0.98%	1.98%
	Peak	0.02%	0.20%	0.81%	0.25%	0.02%	0.01%	0.80%	0.03%	0.31%	2.16%	4.60%
Transition	Low	1.46%	0.67%	4.85%	1.04%	0.05%	0.03%	3.24%	0.11%	1.02%	6.04%	18.50%
	Mid	0.07%	0.28%	1.61%	0.47%	0.03%	0.01%	1.54%	0.03%	0.53%	3.62%	8.20%
	Peak	0.15%	0.61%	4.41%	1.04%	0.05%	0.03%	4.53%	0.02%	1.43%	5.75%	18.01%
Summer	Low	0.67%	0.36%	2.52%	0.50%	0.03%	0.02%	1.61%	0.03%	0.46%	3.57%	9.77%
	Mid	0.01%	0.13%	1.02%	0.17%	0.01%	0.01%	0.82%	0.00%	0.25%	1.20%	3.61%
	Peak	0.01%	0.15%	1.12%	0.19%	0.01%	0.01%	1.02%	0.00%	0.35%	1.22%	4.07%
Total		**2.96%**	**3.15%**	**20.85%**	**4.52%**	**0.26%**	**0.14%**	**16.56%**	**0.28%**	**5.32%**	**29.46%**	**83.50%**

LTR – Load and Time Rate; EHV – Extra High Voltage; CS – Concentrated Sale; HV – High Voltage; LV – Low Voltage

Table 10.5-1: Infrastructure Transaction Distribution in the Electricity Grid by Projected Rate Groups for 2016:

		Recognized EHV producer to EHV consumer	Recognized EHV/HV producer to HV consumer CS "remote"	Recognized EHV/HV producer to HV consumer "remote"	Recognized HV producer to HV consumer "remote"	Recognized EHV/HV/LV producer to LV consumer CS "remote"	Recognized EHV/HV/LV producer to LV consumer "remote"	
		Table 7.2-1	**Table 7.4-2**	**Table 7.4-1**	**Table 7.3-2**	**Table 7.4-4**	**Table 7.4-3**	**Total**
Winter	**Low**	0.52%	0.17%	1.38%	0.01%	0.00%	0.02%	2.10%
	Mid	0.07%	0.04%	0.36%	0.00%	0.00%	0.02%	0.49%
	Peak	0.14%	0.09%	0.76%	0.00%	0.00%	0.05%	1.04%
Transition	**Low**	0.62%	0.22%	1.81%	0.01%	0.00%	0.02%	2.69%
	Mid	0.32%	0.17%	1.47%	0.00%	0.00%	0.08%	2.05%
	Peak	0.74%	0.45%	3.73%	0.01%	0.00%	0.23%	5.16%
Summer	**Low**	0.29%	0.10%	0.76%	0.00%	0.00%	0.01%	1.17%
	Mid	0.13%	0.07%	0.62%	0.00%	0.00%	0.04%	0.86%
	Peak	0.13%	0.09%	0.67%	0.00%	0.00%	0.04%	0.93%
Total		**2.97%**	**1.40%**	**11.56%**	**0.04%**	**0.02%**	**0.51%**	**16.50%**

Explanations:

1. In the production rate base of 2010, the Authority has decided to update the consumption distribution of all consumer groups once per year, at the time of the annual update. The need to annually update the consumption distribution arose from the expected changes in consumption patterns over time, depending on economic variables, the price ratios between different demand hour clusters and various voltage levels.
2. The distribution is based on the electricity consumption distribution forecast for 2016, as calculated by the Israel Electric Corporation.

1N. Annual update 2016: compensation for failure to regularly update electricity rates

1. The cost of compensation in different segments for failure to regularly update electricity rates in 2015 was as follows:[(1)(2)(3)]

Segment	Cost in million NIS, December 2015
Fuels	-876
Production without fuel	236
Purchases from IPPs	287
Transmission	-1
High voltage distribution	20
Low voltage distribution	12
System administrator	-109
Fixed payment (supply rate)	15

2. The decision shall enter into force at the time of the annual update for 2016.

Explanations

1. The recognized cost to the Israel Electric Corporation is updated twice per month, on the 1st of the month due to changes in fuel prices, and on the 16th of the month due to changes in the consumer price index, the average monthly salary of an Israeli wage employee and foreign exchange rates. The rate for consumers, on the other hand, is updated in accordance with the earlier of the following two events, as specified in Authority Decision no. 2, Session 890, 21/1/2014:
   1) A change in the cost of recognized input of the entire system by at least 3.5%, provided that four months have elapsed since the previous update.
   2) The date of the annual update, starting with the 2016 update.
2. The compensation for fuel costs includes:
   (a) The actual load curve for 2015 – in the calculation of the fuel mix for 2015 a projected load curve was used. In Authority Decision no. 1 in Session 289 of 1/2/2011 regarding "Rate base for the production segment for 2010-2014 and updates to the transmission and distribution segments" and updates to the "Book of Rates Structure", chapter 5, section 5.7, the Authority specifies a protection mechanism against erroneous load projections. The final fuel mix for 2015 was calculated using this mechanism, in accordance with the actual load curve.
   (b) An update for the operating dates of new production units, an update of gas limitations and an update of the operating regime, as specified in section 1J of the decision "final recognized fuel mix for 2015 and principles for its calculation".
   (c) Details of the compensation for fuel costs for 2015, in accordance with the following components:
      (1) Compensation due to the difference between the recognized fuel basket cost for 2015 and the actual fuel basket cost collected in the amount of 1,091 million NIS.

(2) Cost reimbursement for fines due to deviations from gas pipe capacity to the Israel Natural Gas Lines – 57 million NIS. This cost is a result of hourly quantity transmissions to a specific site beyond the maximum hourly quantity specified in the agreement between IEC and INGL, although the total amount consumed by the Israel Electric Corporation at any specific hour did not exceed the quantity ordered by IEC in its agreement with INGL. This deviation is the result of efficient mobilization of gas in the system, in order to minimized fuel consumption costs. This cost for 2013-2015 is as follows:

2013: around 23 million NIS
2014: around 3 million NIS
2015: around 28 million NIS

(3) 267 million NIS LNG costs, as follows:

- Projected costs for 2015 in the amount of 280 million NIS, set to 273.7 million NIS, i.e. a compensation of 6 million NIS
- Forecast for 2016 in the amount of 274 million NIS
- Costs for delays in the construction of the buoy in 2012 – in the amount of 58 million NIS. Authority Decision no. 1 in Session 452 of 21/1/2015 partly recognizes the delay in the construction of the buoy, since the Authority expected the company to conclude the proceedings against INGL regarding its responsibility to the delay in the construction of the buoy, in accordance with the provisions of the Governmental Companies Law, 5738-1975, regulating conflict resolutions between governmental companies regarding infrastructure. Following a re-evaluation that such proceedings will not lead to a compensation for the company, the Authority recognizes the remaining sum not previously recognized.

3. Compensation for non-fuel production costs, including:
   (a) Recognition of asset and depreciation costs not previously recognized, as specified in section 1K of this decision. The compensation amount includes recognized costs for previous years plus linkage and recognized interest.
   (b) Payment of debts to consumers due to the implementation of system administration rates – Authority Decision no. 7 (998) in Session 474 of 7/9/2015 regarding "2015 annual update to the electricity rate – summary decision regarding electricity rates for IEC consumers" (hereinafter: 2015 annual update decision), specifies the payment of the debt accrued to IEC consumers due to the independent providers debt. The remaining cost up to the end of 2016 is estimated at around 33 million NIS. This cost shall be divided in accordance with the ratio of costs deducted from production and transmission prior to the implementation of system rates. The cost for the production segment shall amount to 14 million NIS, and the remaining 18 million NIS shall be included in the compensation for arrears of the system administration segment.

4.
   1. The compensation for delays by the system administration segment shall include:
      a) Compensation for delays in updating the administrative costs for 2015 in the amount of 18 million NIS, in accordance with section 1N of this decision.
      b) Compensation for updating the administrative costs of the system administrator from 1/6/2013 until 31/12/2015 in the amount of 133 million NIS. The administrative costs specified in Session 471 of 6/8/2015 were

temporary, until the establishment of final costs. The final administrative cost was determined in Decision no. 3 (1088) in the session of 5/10/2016. This compensation is due to the difference between the temporary costs and the final costs.

c) Payment of debts to consumers due to the implementation of system administration rates – allocation to the system administration segment of around 18 million NIS. See section 3(b) above.

1O. 2016 annual update: recognized operating costs

1. The Authority hereby updates the recognized cost of spare parts inventory specified in the base rate for the production segment of February 2010, so as to cover 100% of the costs specified in the base rate, instead of 50%.
2. This recognition shall apply from the date of implementation of the base rate for the production segment.

Explanations

At the time of establishing the base rate for the production segment, 50% of the capital costs due to spare parts inventory and other equipment were recognized for the company. The reason for this is that at the time of the decision, the company had not provided reasonable explanations regarding inventory surplus for 9 years.

Following the implementation of the base rate, the company provided explanations that were examined by engineering consultants contracted by the Authority. As a result, the Authority recognizes the full cost for the applicable years in the base rate.

The cost for previous years has already been recognized in advance, starting with the annual rate update of 2014.

1P. Scheduling of debt for 2009 fuel costs –

The amount of the annual re-payment of the debt to consumers shall be updated so as to end in 2017, in accordance with Authority Decision no. 2 in Session 400 of 6/5/2013 regarding *"Annual update 2012-2013 – summary decision and scheduling of electricity rates increase for 2013"* (hereinafter: 2013 annual update decision). The change in the amount is required due to changes in the rate of collection, and shall amount to 294 million NIS, in order to end in 2017.

Supplement A
Level of recognized costs for the Israel Electric Corporation as of 1/12/2016

Below are the level of recognized costs for the Israel Electric Corporation as of 1/12/2016 and the normative quantity of energy adjusted for this segment.
These costs are adjusted to the quantity of energy transmitted through the electricity chain during the base year 2006 for each segment, in known prices as of 1/12/2016.

Fuel cost (million NIS)

Cost of fuel basket	6,257
Working capital fuels	69
Compensation for update delay	-684
Debt scheduling 2009	-295
Total fuels	5,347
Working capital customers	19
Total fuels	**5,366**
System administrator deduction	-658
Cost with system administrator deduction	**4,708**

Recognized net electricity production for the base year 2006: 36,585 million kWh

Non-fuel production cost (million NIS)

Return on assets	909
Depreciation	1,598
Total capital services	2,507
Operating expenses	2,280
Hedging	23
Compensation for update delay	255
Working capital customers	18
Total non-fuel production	**5,084**
System administrator deduction	-728
Cost with system administrator deduction	**4,356**

Recognized net electricity production for the base year 2006: 34,902 million kWh

Costs due to production by others (million NIS, adjusted to the 2006 base rate)

Purchases for IPPS	1,560

Recognized net electricity production for the base year 2006: 5,391 million kWh

Return on equity	250
Return on foreign capital	448
Return on assets	698
Depreciation	691
Total capital services basket	1,389
Operation	407
Efficiency grossed-up hedging	18
Compensation for update delay	-1
Total compensation for update delay	1,813
Efficiency increase	-269
Consumer cost reduction	0
Consumer debt	148
Total before working capital customers	1,692
Working capital customers	6
Unrecognized free electricity cost reduction	-7
Total cost of transmission adjusted to the production base rate for 2010-2014	**1,691**

Transmitted energy in the segment for the base year 2006: 41,461 million kWh

High voltage transmission (million NIS, adjusted to the 2006 base rate)

Return on equity	164
Return on foreign capital	261
Return on assets	425
Depreciation	496
Total capital services basket	921
Operation	483
Efficiency grossed-up hedging	10
Compensation for update delay	17
Total compensation for update delay	1,431
Efficiency increase	-383
Consumer cost reduction	-8
Consumer debt	194
Total before working capital customers	1,233
Working capital customers	4
Unrecognized free electricity cost reduction	-18
Total cost of high voltage transmission adjusted to the production base rate for 2010-2014	**1,219**

Transmitted energy in the segment for the base year 2006: 41,584 million kWh

Transmission (million NIS, adjusted to the 2006 base rate)	
Return on equity	175
Return on foreign capital	278
Return on assets	454
Depreciation	490
Total capital services basket	944
Operation	1,011
Efficiency grossed-up hedging	11
Compensation for update delay	17
Total compensation for update delay	1,983
Efficiency increase	-727
Consumer cost reduction	-440
Consumer debt	242
Total before working capital customers	1,058
Working capital customers	3
Unrecognized free electricity cost reduction	-20
Total cost of low voltage transmission adjusted to the production base rate for 2010-2014	**1,041**

Transmitted energy in the segment for the base year 2006: 24,138 million kWh

Section 5.2 – Load and time rate consumers

Table 5.2-1: Load and time rate by voltage levels – Agorot per kWh

Season	Demand hour cluster	Supply voltage				Extra-high voltage
		Low voltage		High voltage		
		Total consumption IEC*	Concentrated sale rate	Total consumption IEC*	Concentrated sale rate	
Winter	Low	37.38	32.78	29.67	28.50	26.87
	Mid	58.63	53.70	49.86	48.45	46.52
	Peak	95.81	90.17	83.73	81.55	78.23
Transition	Low	33.74	29.23	26.37	25.26	23.77
	Mid	40.52	35.85	32.40	31.13	29.28
	Peak	48.38	43.59	39.74	38.35	36.29
Summer	Low	35.05	30.46	27.16	25.94	24.14
	Mid	49.87	45.00	40.40	38.81	36.23
	Peak	106.73	100.89	92.62	89.85	85.29

* Excluding concentrated sale rate consumers.

Table 5.2-3: Simple load and time rate for consumers billed by voluntary load and time rate – Agorot per kWh

Simple voluntary LTR for a home rate consumer		Rate in Agorot per kWh
Winter	Low	40.91
	Peak	95.81
Transition	Low	40.80
summer	Low	38.76
	Peak	106.73

Section 5.3 – Fixed rate consumers

Table 5.3-1: Fixed rates – Agorot per kWh

Home*	**General**	**Street lighting**	**Low voltage bulk**	**High voltage bulk**
42.76	48.68	42.87	46.18	37.68

* The discount percentage for consumers entitled to a benefit in accordance with section 2 (a) (4) of the Income Support Law, 5741-1980, for the first 400 kWh of each month: 50%

Section 5.4 – Consumption rates

Table 5.4-1: Fixed payment for consumption services in NIS

Sector	Consumer definition	Bill frequency	Fixed monthly payment
Home	All consumers	Bi-monthly	13.81
	Voluntary LTR	Bi-monthly	19.77
	Single-phase simple voluntary LTR	Bi-monthly	22.15
	Triple-phase simple voluntary LTR for all connection types	Bi-monthly	23.59
General	Consumers with special connections	Bi-monthly	2.67+5.41*A
	Bi-monthly consumption	Bi-monthly	13.81
	Voluntary LTR	Bi-monthly	58.35
	Remaining consumers including connections greater than 100 ampere	Monthly	58.35
	Voluntary LTR for remaining consumers including connections greater than 100 ampere	Monthly	58.35
Street lighting	Bi-monthly consumption	Bi-monthly	13.81
	Voluntary LTR	Bi-monthly	13.81
	Remaining consumers including connections greater than 100 ampere	Monthly	58.35
	Voluntary LTR for remaining consumers including connections greater than 100 ampere	Monthly	58.35
Low voltage LTR	Consumers subscribed by standard B3.3.1 (2)	Bi-monthly	58.35
	Consumers subscribed by standard B3.3.1 (1)	Monthly	183.91
High voltage LTR	All consumers	Monthly	299.92
Extra-high voltage LTR	All consumers	Monthly	301.48
Additional payment for a consumer with a photo-voltaic facility		According to the consumption bill	11.77

Table 5.4-2: Enhanced services rates

No.	Subject	Standard	Payment in NIS
1	Payment due in case a client does not allow access to a commercial person in spite of an advance coordination	9(b); 9(c)	64.63
2	Payment due in case a client does not allow access to a technical person in spite of an advance coordination	9(b); 9(c)	78.48
3	Cost of arriving on location without fuse replacement	9(b); 9(c); 34(e)	46.17
4	Refund for not conducting a periodic meter reading: bi-monthly	13(j)(1)	4.27
5	Refund for not conducting a periodic meter reading: monthly LTR	13(j)(1)	47.83
6	Refund for not conducting a periodic meter reading: regular monthly	13(j)(1)	23.43
7	Meter examination cost: single phase	15(f)(2)	188.36
8	Meter examination cost: any other meter	15(f)(2)	643.57
9	Removing and installing a meter	15(f)(2); 15(g)(2) and (3); 31B(2)(5); 20(6); 31A(5)	156.97
10	Payment for unlawful use	16(e)	64.63
11	Costs of disconnection or reconnection	12(a)(4); 17(a); 17(f); 40(b); 24(b)(4); 40(3)(1); 40(d)(2)	63.33
12	Costs of disconnection or reconnection outside a premises	12(a)(4); 17(a); 17(f); 40(b)	126.66
13	Costs of arrangement and registration: internal	18(a)(1); 19(e)	7.20
14	Costs of arrangement and registration: external (added to internal arrangement and registration)	18(a)(1); 19(e)	27.70
15	Costs due to a notification prior to a power disconnection	24(b)(2)	11.58
16	To be determined		
17	Payment due to a rejected check collected in the office	25(b)(1)	72.02
18	Payment due to a rejected check collected in the premises	25(b)(1)	168.51
19	Payment due to a cancellation of a bank order	25(b)(1)	16.56
20	Payment due to a rejected credit card payment	25(b)(1)	23.53
21	Payment due to a collection in the premises	25(c); 25(d)	78.48
22A	Payment for issuing a bill / copy / other before April '99	22(d); 28(b)(2)	18.47
22B	Payment for issuing a first copy of a special bill / copy / other from April '99 and onwards	22(d); 28(b)(1)	5.38
22C	Payment for issuing any additional copy of a special bill / copy / other from April '99 and onwards	22(d); 28(b)(2)	2.31
23	Refund for payment by bank order (not by credit card)	30(f)	3.84
24	Relocating an internal apartment meter to outside the apartment	31B(1)(a)	To be determined
25	Payment for company fuse replacement following a fuse burn out	34(d)	46.17
26	Notification of power supply renewal	39(a)(2)	37.67
27	Payment for receiving post-dated checks	25(e); 25(f)	8.00
28	Payment for issuing an approval to use / not use electricity	17(h)	18.47
29	Payment for a special reading at the request of the consumer	13(i)	64.63
30	Payment for costs due to removing an additional meter installed at the place of consumption		To be determined
31	Cost of removing an obstacle	A 2.5.1(b)	To be

			determined
32	Installing a communication line to a production meter	209(b)(8)	To be determined

Section 6.3 – Production component

Table 6.3-1: Production component – Agorot per kWh

Season	Demand hour cluster	Base production component rate
Winter	Low	19.62
	Mid	37.98
	Peak	66.26
Transition	Low	16.79
	Mid	21.43
	Peak	27.63
Summer	Low	16.51
	Mid	26.74
	Peak	69.60
Weighted rate		**26.40**

* The weighted production rate includes, among other things, the following components: IEC fuel basket, IEC production (capital costs), electricity purchases from IPPS, including the PV energy component, production consumer debt arrangements and compensation for update delay.

Section 7.2 – Rates for transmission infrastructure services

Table 7.2-1: Rate of transmission infrastructure services – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	101.11%	0.90
	Mid	101.33%	1.11
	Peak	101.49%	2.84
Transition	Low	101.00%	0.82
	Mid	101.28%	1.38
	Peak	101.38%	1.81
Summer	Low	101.24%	1.44
	Mid	101.53%	2.64
	Peak	101.73%	6.22

Section 7.3 – Rates for distribution infrastructure services

Table 7.3-1: Distribution rate – recognized extra-high voltage producer to a "near" high voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	101.12%	2.57
	Mid	101.37%	2.80
	Peak	101.55%	4.41
Transition	Low	100.98%	2.43
	Mid	101.29%	2.82
	Peak	101.41%	3.03
Summer	Low	101.24%	2.79
	Mid	101.56%	3.71
	Peak	101.80%	5.95

Table 7.3-2: Distribution rate – recognized high voltage producer to a "near" high voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	101.72%	1.01
	Mid	100.88%	1.04
	Peak	101.00%	1.44
Transition	Low	100.63%	0.99
	Mid	100.83%	1.06
	Peak	100.91%	1.10
Summer	Low	100.80%	1.06
	Mid	101.01%	1.26
	Peak	101.16%	1.83

Section 7.4 – Rates for infrastructure services in the transmission and distribution networks

Table 7.4-1: Transmission and distribution rate – recognized EHV or HV producer selling to a "remote" high voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	102.25%	3.49
	Mid	102.72%	3.93
	Peak	103.07%	7.30
	Low	101.99%	3.25

Transition	Mid	102.59%	4.21
	Peak	102.81%	4.87
Summer	Low	102.50%	4.25
	Mid	103.12%	6.39
	Peak	103.56%	12.27

Table 7.4-2: Transmission and distribution rate – recognized EHV or HV producer selling to a high voltage consumer in a remote concentrated sale – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	101.51%	2.46
	Mid	101.82%	2.86
	Peak	102.05%	5.80
Transition	Low	101.35%	2.24
	Mid	101.74%	3.13
	Peak	101.88%	3.74
Summer	Low	101.69%	3.16
	Mid	102.09%	5.08
	Peak	102.37%	10.32

Table 7.4-3: Transmission, distribution and supply rate – recognized EHV/HV/LV producer selling to a remote low voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	105.16%	10.62
	Mid	106.37%	11.31
	Peak	107.49%	16.45
Transition	Low	104.37%	10.22
	Mid	105.92%	11.62
	Peak	106.42%	12.51
Summer	Low	105.60%	11.62
	Mid	107.18%	14.77
	Peak	108.20%	23.16

Table 7.4-4: Transmission, distribution and supply rate – recognized EHV/HV/LV producer selling to a low voltage consumer in a remote concentrated sale – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	104.06%	6.24
	Mid	104.98%	6.91
	Peak	105.78%	11.94
	Low	103.48%	5.86

Transition	Mid	104.66%	7.22
	Peak	105.05%	8.09
Summer	Low	104.43%	7.23
	Mid	105.64%	10.31
	Peak	106.44%	18.54

Section 7.5 – Rates for infrastructure services in the distribution and supply network

Table 7.5-1: Rate of distribution and supply – recognized high voltage producer to a "near" low voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	103.60%	8.07
	Mid	104.47%	8.32
	Peak	105.33%	10.34
Transition	Low	102.98%	7.91
	Mid	104.11%	8.36
	Peak	104.45%	8.61
Summer	Low	103.85%	8.34
	Mid	104.99%	9.44
	Peak	105.69%	12.25

Section 7.6 – Supply infrastructure services

Table 7.6-1: Rate of low voltage supply – recognized low voltage producer to a "near" low voltage consumer – in Agorot per kWh

Season	Demand hour cluster	Addition for loses	Rate
Winter	Low	101.06%	4.31
	Mid	101.33%	4.31
	Peak	101.62%	4.31
Transition	Low	100.86%	4.31
	Mid	101.21%	4.31
	Peak	101.30%	4.31
Summer	Low	101.12%	4.31
	Mid	101.46%	4.31
	Peak	101.65%	4.31

Section 8

Table 8.1-1: Rate of system administration services – in Agorot per consumed kWh

		Administrative costs	**System balance**	**Backup services**	**General system services**	**Total**
Winter	Low	0.24	0.71	0.84	4.34	6.12
	Mid	0.24	0.71	1.63	4.34	6.92
	Peak	0.24	0.71	2.85	4.34	8.13
Transition	Low	0.24	0.71	0.72	4.34	6.00
	Mid	0.24	0.71	0.92	4.34	6.20
	Peak	0.24	0.71	1.18	4.34	6.47
Summer	Low	0.24	0.71	0.71	4.34	5.99
	Mid	0.24	0.71	1.15	4.34	6.44
	Peak	0.24	0.71	2.99	4.34	8.27
Total		**0.24**	**0.71**	**1.14**	**4.34**	**6.43**

Section 10

Table 10.5-1: Projected distribution of electricity consumption by IEC rate groups for 2016

Season	Demand hour cluster	LTR EHV	LTR HV CS	LTR HV	Bulk HV	LTR LV CS	Bulk LV	LTR LV	Light	General	Home	Total
Winter	Low	0.56%	0.66%	4.15%	0.05%	2.69%	0.77%	0.02%	0.05%	0.87%	4.93%	14.74%
	Mid	0.01%	0.08%	0.37%	0.01%	0.30%	0.11%	0.00%	0.01%	0.11%	0.98%	1.98%
	Peak	0.02%	0.20%	0.81%	0.02%	0.80%	0.25%	0.01%	0.03%	0.31%	2.16%	4.60%
Transition	Low	1.46%	0.67%	4.85%	0.05%	3.24%	1.04%	0.03%	0.11%	1.02%	6.04%	18.50%
	Mid	0.07%	0.28%	1.61%	0.03%	1.54%	0.47%	0.01%	0.03%	0.53%	3.62%	8.20%
	Peak	0.15%	0.61%	4.41%	0.05%	4.53%	1.04%	0.03%	0.02%	1.43%	5.75%	18.01%
Summer	Low	0.67%	0.36%	2.52%	0.03%	1.61%	0.50%	0.02%	0.03%	0.46%	3.57%	9.77%
	Mid	0.01%	0.13%	1.02%	0.01%	0.82%	0.17%	0.01%	0.00%	0.25%	1.20%	3.61%
	Peak	0.01%	0.15%	1.12%	0.01%	1.02%	0.19%	0.01%	0.00%	0.35%	1.22%	4.07%
Total		2.96%	3.15%	20.85%	0.26%	16.56%	4.52%	0.14%	0.28%	5.32%	29.46%	83.50%

Table 10.5-1: Infrastructure Transaction Distribution in the Electricity Grid by Projected Rate Groups for 2016:

		Recognized EHV producer to EHV consumer	Recognized EHV/HV producer to HV consumer CS "remote"	Recognized EHV/HV producer to HV consumer "remote"	Recognized HV producer to HV consumer "remote"	Recognized EHV/HV/LV producer to LV consumer CS "remote"	Recognized EHV/HV/LV producer to LV consumer "remote"	
Season	Demand hour cluster	Table 7.2-1	Table 7.4-2	Table 7.4-1	Table 7.3-2	Table 7.4-4	Table 7.4-3	Total
Winter	Low	0.52%	0.17%	1.38%	0.01%	0.00%	0.02%	2.10%
	Mid	0.07%	0.04%	0.36%	0.00%	0.00%	0.02%	0.49%
	Peak	0.14%	0.09%	0.76%	0.00%	0.00%	0.05%	1.04%
Transition	Low	0.62%	0.22%	1.81%	0.01%	0.00%	0.02%	2.69%
	Mid	0.32%	0.17%	1.47%	0.00%	0.00%	0.08%	2.05%
	Peak	0.74%	0.45%	3.73%	0.01%	0.00%	0.23%	5.16%
Summer	Low	0.29%	0.10%	0.76%	0.00%	0.00%	0.01%	1.17%
	Mid	0.13%	0.07%	0.62%	0.00%	0.00%	0.04%	0.86%
	Peak	0.13%	0.09%	0.67%	0.00%	0.00%	0.04%	0.93%
Total	0	2.97%	1.40%	11.56%	0.04%	0.02%	0.51%	16.50%

LTR – Load and Time Rate; EHV – Extra High Voltage; CS – Concentrated Sale; HV – High Voltage; LV – Low Voltage

Table 12.1-1: Payments for violation of standards

Service	Standard	Payment for violation
Written reply to a consumer complaint, written reply to a request to incorporate a facility into the network	33(f) 177(1)(c) 145(b)(1) 198	8.25 NIS For each day of delay
Voltage examination at the consumption location	34(a) 34(c)(1)	8.25 NIS For each day of delay
Sending a report of voltage deviation repair at the consumption location	34(a)(2)	8.25 NIS For each day of delay
Repairing a fuse	34(c)(3) 34(c)(4)	8.25 NIS For each day of delay
Written reply to a request to connect to the low voltage electricity network, technical coordination for incorporation of a facility into the network	35(b)(4)(b)(1) 35(c)(3)(b)(6) 35(c)(4)(b) 35(f)(1)(c) 35(f)(2)(c) 146(a)(2) 177(d)(1)(c) 198(d)(1)	8.25 NIS For each day of delay
Completing a connection work to the electricity network	35(c)(8)(b)	0.85% of the total cost of the connection for each day of delay
Completing a connection work to the low voltage electricity network	35(c)(8)(b) 144(f)(1)	0.85% of the total cost of the connection for each day of delay
Examination of a facility prior to low voltage electrification	35(c)(9)(a)	0.85% of the total cost of the connection for each day of delay
Low voltage facility electrification	35(c)(9)(c)	0.85% of the total cost of the connection for each day of delay
Completing a fast connection work to the low voltage electricity network	35(c)(10)(a)	0.85% of the total cost of the connection for each day of delay
Written reply to a request to connect to the high voltage electricity network, technical coordination for incorporation of a facility into the network	35(d)(2)(c) 35(d)(3)(b) 35(d)(4)(b) 35(f)(1)(c) 35(f)(2)(c) 177(d)(1)(c)	8.25 NIS For each day of delay
Completing connection work to the high voltage electricity network	35(d)(8)(a) 144(f)(1)	0.85% of the total cost of the connection for each day of delay
Examination of a facility prior to high voltage electrification	35(d)(9)(a)	0.85% of the total cost of the connection for each day of delay
High voltage facility electrification	35(d)(9)(b)	0.85% of the total cost of the connection for each day of delay
Failure at the Essential Service Provider's facility	34(c)(1) 34(c)(3) 34(c)(4)	8.11 NIS For each hour of delay
Notification regarding a power cut	37(d)	81.96 NIS
Deviation from 10 switching operation in case of an interruption management	48(b)(10)(c)	81.96 NIS
Wrongful power disconnection	24(b)(4) 16(a) 11(c) 12(f) 21(g)	71.72 NIS
First violation of a third rolling skipping in a calendar year or	13(l)	From table 5.4-2: refund for

first violation of a follow-up rolling skipping in a calendar year	13(d)(4)	rolling skip times 4
Repeat violation of a fourth or more rolling skipping in a calendar year or repeat violation of a follow-up rolling skipping in a calendar year	13(l) 13(d)(4)	From table 5.4-2: refund for rolling skip times 8
Service	**Standard**	**Payment for violation**
Submitting a repair bill later than the date specified in the standards	26(e)(1)	8.00 NIS For each day of delay
Works on account of others	144(f)(1)	0.4% of the total cost of the work for each day of delay
Conducting a feasibility survey	35(e)(4)(b)(3)	2,010 NIS For each day of delay
Conducting a feasibility survey	35(e)(4)(b)(4)	For each day of delay: 0.2% of the connection rate but no less than 4,000 NIS
Conducting a connection survey	35(e)(6)(b)(3)	5,026 NIS For each day of delay
Conducting a connection survey	35(e)(6)(b)(4)	For each day of delay: 0.5% of the connection rate but no less than 5,000 NIS
Implementation of concentrated sale rate	7, 21(a)	501 NIS For each day of delay