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[The information in square brackets is covered by the obligation of professional secrecy]

## EFTA SURVEILLANCE AUTHORITY DECISION

of 20 May 2015

on the sale of electricity to the PCC Silicon Metal Plant at Bakki under the 2015 Power Contract

(Iceland)

The EFTA Surveillance Authority (“the Authority”),

HAVING REGARD to the Agreement on the European Economic Area (“the EEA Agreement”), in particular to Article 61(1) and Protocol 26,

HAVING REGARD to the Agreement between the EFTA States on the Establishment of a Surveillance Authority and a Court of Justice (“the Surveillance and Court Agreement”), in particular to Article 24,

HAVING REGARD to Protocol 3 to the Surveillance and Court Agreement (“Protocol 3”), in particular to Article 1(3) of Part I and Article 4(2) of Part II,

Whereas:

### I. FACTS

#### 1. Procedure

- (1) Following pre-notification discussions<sup>1</sup>, by letter dated 31 March 2015, the Icelandic authorities notified for legal certainty a contract on the sale of electric power for a silicon metal plant to be constructed and operated by PCC Bakki-Silicon hf. at Bakki in Húsavík in North-East Iceland pursuant to Article 1(3) of Part I of Protocol 3.<sup>2</sup>

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<sup>1</sup> Doc Nos 748040 to 748045.

<sup>2</sup> Doc Nos. 752851, 752852, 752853, 753804 (Notification memorandum) and 8 Annexes (753788, 753789, 753791, 753796 to 753800).

## 2. Description of the notified measure

### 2.1 Background information

- (2) By Decision No 111/14/COL<sup>3</sup>, adopted on 12 March 2014, the Authority approved a nominal 23.33 million EUR<sup>4</sup> in regional investment aid to PCC Bakki-Silicon hf. for its planned energy-intensive silicon metal plant at Bakki in Húsavík, according to an investment agreement entered into between the company and the Icelandic Government on 27 September 2013 on the basis of Act No 52/2013 (“the PCC Act”). The investment agreement was notified to the Authority on 4 July 2013. The Authority did not assess any power contracts or transmission agreements in Decision No 111/14/COL.<sup>5</sup>
- (3) In order to operate the new silicon metal plant, a power contract and a transmission agreement for that power are required.
- (4) In fact, prior to the Power Contract at stake in this present decision, Landsvirkjun and PCC had already signed two different power contracts. The first one, signed on 28 June 2012 (“the 2012 Power Contract”) and the second one dated 17 March 2014 (“the 2014 Power Contract”).
- (5) The 2012 Power Contract never became legally binding since PCC did not fulfil the conditions precedents after the expiry of an extended deadline. This contract was never notified to the Authority. Once the 2012 Power Contract was terminated, the parties negotiated the 2014 Power Contract.
- (6) The 2014 Power Contract was notified for legal certainty to the Authority on 17 April 2014. The Authority opened a formal investigation into this contract on 10 December 2014 by Decision No 543/14/COL,<sup>6</sup> where it came to the preliminary conclusion that the agreement could entail state aid. However, PCC was unable to fulfil all the condition precedents of the 2014 Power Contract<sup>7</sup> after the deadline was extended twice and, consequently, on 25 February 2015, the parties, by means of a Mutual Termination Declaration,<sup>8</sup> terminated the contract. Consequently, the 2014 Power Contract is not enforceable between the parties.
- (7) After the termination of the 2014 Power Contract, the parties have re-negotiated a new power contract. A draft 2015 Power Contract was sent to the Authority during the pre-notification phase.<sup>9</sup> The 2015 Power Contract was finally signed on 27 March 2015 (hereinafter “the Power Contract”).<sup>10</sup>
- (8) The Power Contract amends the conditions of the 2014 Power Contract and it is *inter alia* based on updated financial and economic data.

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<sup>3</sup> See OJ C 207, 3.7.2014, p. 42 and in Icelandic and Norwegian in the EEA Supplement to the Official Journal No. 39, 3.7.2014. The full text of the decision is available at the Authority’s website: [http://www.eftasurv.int/media/state-aid/decision\\_111\\_14\\_COL.pdf](http://www.eftasurv.int/media/state-aid/decision_111_14_COL.pdf).

<sup>4</sup> The net present value (NPV) of the regional investment aid is 13.64 million EUR.

<sup>5</sup> See Decision No 111/14/COL, paragraphs 10 and 11.

<sup>6</sup> See OJ C 92, 19.3.2015, p. 3 and EEA Supplement No 15, 19.3.2015.

<sup>7</sup> Pursuant to Art. 35 of the 2014 Power Contract, the binding validity and effects of the agreement was subject to the fulfilment of all the conditions precedents set down in the same Contract.

<sup>8</sup> Annex 1 to the notification. Doc No 753788.

<sup>9</sup> Doc No 748041.

<sup>10</sup> Annex 5 to the notification. Doc No 753797.

- (9) Similarly, PCC and the Icelandic Transmission System Operator (Landsnet) have signed two different Transmission Agreements (the first one in 2014 and the second one in 2015). The Authority opened a formal investigation regarding the 2014 Agreement by means of Decision No 543/14/COL.<sup>11</sup> However, PCC and Landsnet have signed in 2015 a different Agreement replacing the 2014 one. The 2015 Transmission Agreement has been notified for legal certainty to the Authority and has been assessed separately (Decision 206/15/COL, on the transmission of electricity to the PCC Silicon Metal Plant at Bakki (2015 Transmission Agreement)).

## 2.2 The contracting parties

### 2.2.1 PCC

- (10) PCC Bakki-Silicon hf. (“PCC”) is a limited liability company incorporated in Iceland in June 2012, majority owned by PCC SE, an international holding company based in Duisburg, Germany. The group employs more than 2 800 employees at 36 sites in 16 countries. Their activities are separated into three divisions; chemicals, energy and logistics. In 2013, group sales amounted to EUR 625 million.<sup>12</sup>

### 2.2.2 Landsvirkjun

- (11) Landsvirkjun is a public partnership company regulated by Act No 42/1983 on Landsvirkjun, as amended (“the Landsvirkjun Act”).
- (12) The company was established as an enterprise, jointly owned by the State Treasury and the City of Reykjavík in equal parts, on the basis of Act No 59/1965 on Landsvirkjun,<sup>13</sup> by a Partnership Agreement of 1 July 1965 between the Government of Iceland and the City Council of Reykjavík.
- (13) As of 1 January 2007, the State Treasury took over the ownership shares of the Town of Akureyri and the City of Reykjavík in Landsvirkjun. The company remained a partnership company with joint liability of the owners. Landsvirkjun is now jointly owned by the State Treasury (99.9 %) and Eignarhlutir ehf. (0.1 %). The latter is a limited liability company wholly owned by the State Treasury.
- (14) Landsvirkjun is by far the largest electricity producer in Iceland with an output of 12 842 gigawatt hours (GWh) in 2013, which according to the company’s own estimates, represents approximately 71% of Iceland’s overall electricity production. The company produces electricity from hydro (96%) and geothermal (4%) sources and operates 16 power stations.<sup>14</sup>

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<sup>11</sup> See footnote 6 above.

<sup>12</sup> Further information is available at: [https://www.pcc.eu/ttw/pcc.nsf/id/EN\\_Home](https://www.pcc.eu/ttw/pcc.nsf/id/EN_Home).

<sup>13</sup> Act No 59/1965 was later repealed and replaced by Act No 42/1983. See <http://www.althingi.is/lagas/nuna/1983042.html>.

<sup>14</sup> Information from the website of Landsvirkjun. See <http://arsskyrsla2013.landsvirkjun.is/orkuvinnsla-og-vidskiptataekifri/orkuvinnsla-2013>.

## 2.3 The Power Contract

### 2.3.1 *The characteristics of the electricity market in Iceland*

- (15) The Icelandic electricity system is isolated and no interconnection exists. There have been discussions about an interconnector between Iceland and the UK, but these discussions have been preliminary and no decision has been taken.<sup>15</sup>
- (16) As described above, Iceland has attracted energy-intensive users since the creation of Landsvirkjun and the exploration of hydroelectric energy resources. The total generation of electricity in Iceland in 2014 was 18 122 GWh,<sup>16</sup> of which Landsvirkjun generated approximately 71%.
- (17) In 2014, 71% of electricity production in Iceland was derived from hydropower (12 873 GWh). Geothermal production achieved 5 239 GWh (28,9% of the total production), with still negligible fuel and wind production (2 and 8 GWh respectively).<sup>17</sup>
- (18) Landsvirkjun is active only on the wholesale market for electricity, where its competitors are Orka náttúrunnar (Our Nature – ON) and HS Orka. Landsvirkjun's customers are seven energy-intensive users purchasing 85% of the company's output, and six distribution companies, purchasing 13%, whereas Landsnet, the TSO, purchases the remaining 2% for electricity losses in the electricity grid. The sale of the electricity is completed through directly-negotiated contracts and the energy-intensive users are connected to the transmission system directly.
- (19) According to available public information provided by Orkustofnun (the National Energy Authority) 77% is consumed by energy-intensive users (aluminium, ferrosilicon and aluminium foil industry) and 23% is attributed to general usage and transmission losses.<sup>18</sup>

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<sup>15</sup> See draft Ten-Year Network Development Plan 2014, prepared by ENTSO-E, European Network of Transmission System Operators for Electricity, pages 161-2, available at <https://www.entsoe.eu/major-projects/ten-year-network-development-plan/tyndp-2014/Pages/default.aspx>.

<sup>16</sup> See data available at the website of Orkustofnun. Available at: [http://os.is/gogn/os-onnur-rit/orkutolur\\_2014-islenska.pdf](http://os.is/gogn/os-onnur-rit/orkutolur_2014-islenska.pdf).

<sup>17</sup> See Energy statistics in Iceland 2014. Available at the website of Orkustofnun. Available at: [http://os.is/gogn/os-onnur-rit/orkutolur\\_2014-islenska.pdf](http://os.is/gogn/os-onnur-rit/orkutolur_2014-islenska.pdf).

<sup>18</sup> Information available at the website of Orkustofnun: [http://os.is/gogn/os-onnur-rit/orkutolur\\_2014-islenska.pdf](http://os.is/gogn/os-onnur-rit/orkutolur_2014-islenska.pdf).

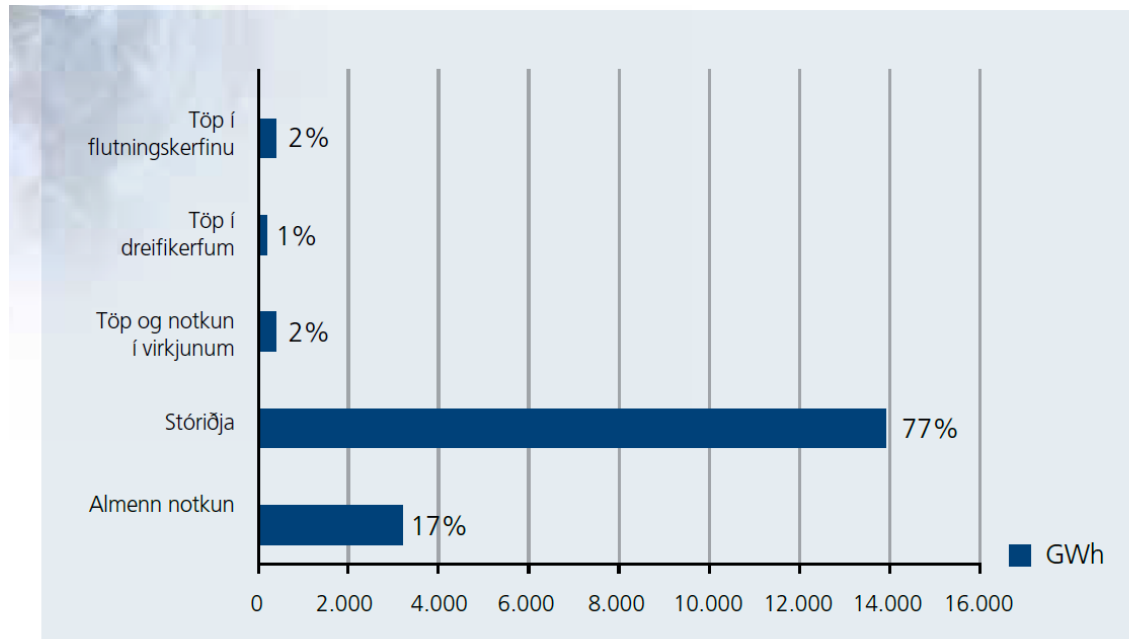


Table 1. Electricity consumption in 2014 (only available in Icelandic).<sup>19</sup>

### 2.3.2 Background on the utilization of geothermal energy in the Lake Mývatn area and transmission facilities

- (20) According to information provided to the Authority in the context of Decision No 111/14/COL<sup>20</sup> the Icelandic authorities, including six municipalities<sup>21</sup> in the North-East of Iceland, have since the beginning of this century made an effort to attract investors to establish an energy-intensive project in Þingeyjarsýsla county, utilising the geothermal resources of the region.
- (21) Landsvirkjun currently owns and operates two geothermal stations, both in the vicinity of Þeistareykir<sup>22</sup>; Bjarnarflag 3 MW, built in 1969 by a company that later merged with Landsvirkjun; and Krafla 60 MW, initially built as a 30 MW station in 1974-8 by the Icelandic State, taken over by Landsvirkjun in 1985 and expanded in 1996-9 to 60 MW.
- (22) The third geothermal area, Þeistareykir, is located between Lake Mývatn and the town of Húsavík, where the PCC Plant is envisaged at a Greenfield site named Bakki. See Figure 1.

<sup>19</sup> The Authority's informal translation: Töp í flutningskerfinu (transmission system losses), Töp í dreifikerfum (distribution system losses), Töp og notkun í virkjunum (losses and usage in power plants), Stóriðja (energy intensive users), Almenn notkun (general usage).

<sup>20</sup> See paragraph 7 of Decision No 111/14/COL.

<sup>21</sup> These municipalities are: *Norðurþing*, *Þingeyjarsveit*, *Skútustaðahreppur*, *Tjörneshreppur*, *Svalbarðshreppur* and *Langanesbyggð*, which together form *Þingeyjarsýsla* county.

<sup>22</sup> Theistareykir in English.



Figure 1. Source: Landsvirkjun

- (23) In 2005, Landsvirkjun initiated a comprehensive exploration program with the aim to develop up to 440 MW of electricity in the geothermal areas close to Lake Mývatn, consisting of Þeistareykir (up to 200 MW), Bjarnarflag (up to 90 MW) and Krafla (up to 150 MW). The objective is to increase Landsvirkjun's geothermal electricity production. As will be described below, part of this project is to initially build and operate a new 90 MW power plant in Þeistareykir.
- (24) Þeistareykir ehf. was established as a limited liability company in 1998, to engage in research and preparation work in relation to a proposed power plant at Þeistareykir. Landsvirkjun initially became a shareholder in Þeistareykir ehf. in 2005, acquiring a share of 31.97%. Other shareholders were smaller local power companies and two small municipalities. During 2009 to 2012, Landsvirkjun bought the remaining shares in the company, becoming the sole owner on 1 April 2012. The merger of Þeistareykir ehf. and Landsvirkjun became effective as of 1 July 2013, by an authorization granted by the Parliament, and provided for in Act No 127/2013, amending the Landsvirkjun Act.
- (25) The owner of the land at Þeistareykir is the municipality of Þingeyjarsveit. Landsvirkjun leases the site (3 480 hectares) from the municipality.
- (26) Licence for the operation of a 100 MW geothermal power station was issued on 28 March 2014 by Orkustofnun. The project also obtained a development license from the Þingeyjarsveit Municipality in July 2014.
- (27) As stated, Landsvirkjun has decided to build an initial 90 MW project in Þeistareykir. However, since the capacity of the area is not known, Landsvirkjun aims at harnessing the geothermal power of the area in two steps; the initial phase entails the construction of a 45 MW station.<sup>23</sup> In a second step, another 45 MW capacity will be added, if the PCC project

<sup>23</sup> Doc No 748043, page 9. At a meeting on 25 February 2015, the Board of Directors of Landsvirkjun approved the initiation of the first 45 MW project and foresaw the option of the second phase of another

materialises. For the first phase of the project, Landsvirkjun has already tendered out the purchase of 45 MW turbines on 25 March 2014 with an option for additional 45 MW turbines in the event that the PCC contract is effectuated.

- (28) The economic figures related to the Þeistareykir Power Station project will be further described below, in subsection I.2.3.4.
- (29) Currently, the Bakki area is not connected to the grid and the use of geothermal energy has not started at Þeistareykir. The amount of steam harnessed so far in the Þeistareykir area from seven wells is enough to generate an estimated 45 - 50 MW of electricity. The Þeistareykir area is not connected to the grid.<sup>24</sup> Landsnet will connect the planned industrial site at Bakki and the new power station at Þeistareykir to the national grid at Krafla with a new power line: from the current transmission system at Krafla through Þeistareykir and to Bakki with adequate transmission capacity to supply electricity to PCC and other future users at Bakki,<sup>25</sup> see Figure 2.

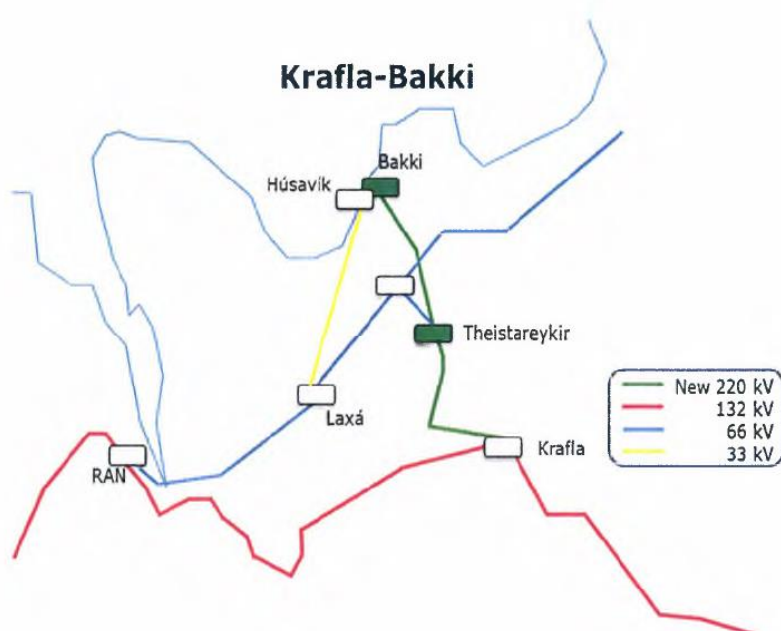


Figure 2. Source: Landsvirkjun

### 2.3.3 The Power Contract – power volume

- (30) As referred in paragraph (1)0 above, the Power Contract was notified to the Authority for legal certainty on 31 March 2015. The Power Contract was signed on 27 March 2015.
- (31) According to the Power Contract, Landsvirkjun will provide electricity for PCC's new plant to be constructed in Bakki ("the Plant"). The production capacity of the Plant will be 33 000 tons of silicon metal per annum. The Plant is expected to start production in March [...] and

45 MW. A copy of the Minutes of the Board of Directors meeting have been provided to the Authority (Doc No 753789. Annex 2 to the notification).

<sup>24</sup> The Authority notes that a 66 kV underground cable was constructed from Þeistareykir in 2013 to provide Landsvirkjun with working electricity for the area and for a future connection with the regional grid in North-East Iceland.

<sup>25</sup> See the Authority's Decision 206/15/COL, on the transmission of electricity to the PCC Silicon Metal Plant at Bakki (2015 Transmission Agreement). See paragraph (9).

will require, in steps, 52 – 58 MW of power (mean per hour), which will be provided exclusively by Landsvirkjun. The Power Contract provides for the sale of 52 MW of power from 1 March [...], 56 MW from 1 January [...], and 58 MW from 1 January [...]. Annual energy delivery is expected to start at 456 GWh and then gradually increase to 508 GWh per annum during the course of the Power Contract.<sup>26</sup>

### 2.3.4 The Peistareykir Power Station

- (32) Given the increase in demand from industrial companies, Landsvirkjun has stated that it needs to harness more energy to cover PCC's demand as well as the increased demand from other undertakings in Iceland.<sup>27</sup>
- (33) The majority of the contract power in the Power Contract entered into with PCC is not existing capacity in Landsvirkjun's current generation system and investment in new generation capacity is needed to provide the power. The Power Contract provides for the yearly supply of 58 MW, with a slightly lower level of supply for the first four years (see paragraph (31) above). In order to cover this, the Power Contract establishes in Article 4 that "[t]he power will be supplied from Landsvirkjun's existing power facilities or from a new power plant to be built and operated in North-East Iceland through the countrywide main transmission grid system operated by the Transmission System Operator" (i.e. the TSO, Landsnet). In fact, Annex 1 of the Transmission Agreement signed with Landsnet<sup>28</sup> foresees that 45 MW will be provided from the new Power Plant at Peistareykir, the remaining 7-13 MW will come from other Landsvirkjun power plants already active in the area and connected to the transmission grid.
- (34) In this scenario, as indicated, Landsvirkjun plans to build a geothermal power station at Peistareykir. The Power Contract is the first that Landsvirkjun enters into with an energy-intensive user where the power will not be generated primarily by hydropower facilities. The planned 90 MW power station at Peistareykir will be referred to in this Decision as "the Power Station", if not otherwise stated.
- (35) Landsvirkjun states that the capacity of 45 - 50 MW of power from seven wells that have already been drilled at the power station at Peistareykir, will be developed regardless of whether PCC's, or other industrial projects at Bakki, materialise in order to supply increased power demand from other undertakings in Iceland. Indeed, Landsvirkjun indicates that this is feasible because it is possible to transfer energy from the Peistareykir power station to other parts of the country. The Board of Directors of Landsvirkjun has approved a first phase of 45 MW of the project and foresees the approval of the second 45 MW phase of the project if the PCC project will materialise.<sup>29</sup> A 90 MW Power Station at Peistareykir will increase Landsvirkjun's annual energy production by 715 GWh.<sup>30</sup>
- (36) Landsvirkjun has provided the Authority with information about the business case for the Peistareykir Power Station including estimates of capital expenditures (CAPEX), operating

<sup>26</sup> Article 3 of the Power Contract.

<sup>27</sup> Doc No 753804, page 8.

<sup>28</sup> Transmission Agreement (Doc. No 752793 – Annex 1).

<sup>29</sup> Doc No 753804, page 8. (See also Doc No 753789 (Annex 2 to the notification. Decision of the Board of Directors on 25 February 2015 regarding the Peistareykir Power Plant)). On 13 April 2015, Landsvirkjun signed an agreement with a contractor for the initial building phase of the power plant (see <http://www.landsvirkjun.is/fyrirtaekid/fjolmidlatorg/frettir/frett/framkvaemdir-hefjast-vid-theistareykjavirkjun/>).

<sup>30</sup> Doc No 753804, page 28.



expenses (OPEX) and direct and indirect revenues for the 30 year expected useful economic life of the Power Station.

- (37) The estimated CAPEX related to the Power Station is illustrated in the table below in thousands of USD.<sup>31</sup> The figures also include already incurred (“accrued”) project costs related to the acquisition of the site as well as the exploratory drilling that will benefit the first phase of the project. As regards the estimated OPEX, Landsvirkjun has informed the Authority that it has based its estimates on operating costs from its two other geothermal power plants and have provided financial models which illustrate the estimated cash flows.

<b>90 MW construction costs</b>	<b>Jan. 2015</b>
<i>Geothermal Drilling</i>	[...]
<i>Steam and moist separators</i>	[...]
<i>Steam Gathering System</i>	[...]
<i>Material purchases for steam supply system</i>	[...]
<i>Civil Works</i>	[...]
<i>Road Works</i>	[...]
<i>Eathworks</i>	[...]
<i>Surface finishing</i>	[...]
<i>Turbines, Generators and Cold End</i>	[...]
<i>Equipment</i>	[...]
<i>Main Transformers</i>	[...]
<i>Control System</i>	[...]
<i>Stattion Service and Ancillary Systems</i>	[...]
<i>Engineering and Consultant Service</i>	[...]
<i>Project supervision</i>	[...]
<i>Other work buying cost</i>	[...]
<b>Total cots remaining</b>	[...]
<i>Accrued cost</i>	[...]
<b>Total initial cost</b>	[...]

Table 2. Source: Landsvirkjun.

- (38) Landsvirkjun has estimated the expected revenues under the Power Contract using Monte Carlo simulations. The contract contains a number of elements that are relevant for the estimation of revenues.
- (39) The Power Contract has base contract prices which start at USD [...] per megawatt hour (MWh) on 1 March [...] until 31 August [...], after which it will gradually increase up to USD [...], which will be the price as of 1 September [...] until its expiry in [...]. The base price is adjusted [annually] according to a pricing formula which is linked [...] % to the [...] consumer price index (CPI) and [...] % to the [...] price of [...].<sup>32</sup>
- (40) The Power Contract has minimum prices (price floor) estimated to USD [...] per MWh during the contract period, and maximum prices (price ceiling) set at [...] % of the [...] price of electricity calculated in EUR. The contract is therefore also exposed to changes in the EUR/USD exchange rate. According to internal documents, Landsvirkjun considers it likely that the contract price will be close to the minimum price stipulated in the contract,

<sup>31</sup> Doc No 753804, page 25.

<sup>32</sup> Article 11 of the Power Contract.

averaging USD [...] per MWh for the first [...] years.<sup>33</sup> It expects the average real contract price to be around USD [...] for the full 30 years.

- (41) This contract price does not include the cost of transmission, which will be paid by PCC to Landsnet pursuant to the Transmission Agreement (see paragraph (9) above).<sup>34</sup> The Power Contract also has a “Take-or-Pay” obligation, which means that PCC must pay for a fixed amount of energy per calendar year regardless of whether the actual consumption is less; this amounts to approximately [...] % of the entire contract power.<sup>35</sup>
- (42) Landsvirkjun has submitted calculations of the net present value (NPV) of the 30 year investment in the Power Station.<sup>36</sup> These calculations are based on the abovementioned CAPEX and OPEX and taking into account both the estimated revenues from the Power Contract and revenue from a second contract with [...] % increase in the estimated price for the last [...] years (after the current Power Contract expires). The calculations do not include any additional or indirect revenue which may arise from the Power Plant project, however the company has estimated these revenues to [...] million USD in NPV terms.
- (43) Landsvirkjun has calculated the weighted average cost of capital (“WACC”) used to discount the cash flow according to its target long-term capital structure (approximately [...] equity). The company has documented its cost of debt through recent issuance of bonds and loan terms from commercial lenders. The cost of equity has been estimated for Landsvirkjun by the external consultants through a study of comparable European power companies. Landsvirkjun estimates the WACC to [...] % which is also the discount rate applied in the NPV base case calculation.
- (44) The NPV calculations provided to the Authority show that the net present value of the investment in the Power Station in the base case, which includes accrued costs and no indirect revenue, is USD [...] million.<sup>37</sup> Landsvirkjun has also performed sensitivity analyses by adjusting CAPEX up by 5% and 15% as well as with higher cost of capital (discount rate in the NPV calculation).<sup>38</sup> The results show that the project is profitable, including the accrued costs, both with higher CAPEX and a higher discount rate, see Table 3 below.

*Table 3: NPV results for THR 90 based on 10,000 simulations using @Risk software. Figures are shown in mUSD (Source: Landsvirkjun):*

	<b><u>5<sup>th</sup> Perc.</u></b>	<b><u>Mean</u></b>	<b><u>95<sup>th</sup> Perc.</u></b>
<b><u>Excluding accrued costs</u></b>	[...]	[...]	[...]
<b><u>Including accrued costs</u></b>	[...]	[...]	[...]

<sup>33</sup> Doc No 753804, page 20.

<sup>34</sup> Article 11 of the Power Contract.

<sup>35</sup> Article 6 of the Power Contract.

<sup>36</sup> Doc No 753804, pages 28 to 30.

<sup>37</sup> Doc No 753804, page 29.

<sup>38</sup> Doc No 753804, page 25.

### 3. Comments by the Icelandic authorities and Landsvirkjun

- (45) The Icelandic authorities and Landsvirkjun are of the view that the notified Power Contract does not entail state aid and have submitted their arguments to that end. The Icelandic authorities notified the Power Contract for legal certainty.<sup>39</sup> In particular, the Icelandic authorities have in this regard put forward arguments pertaining to the presence of an advantage. They submit that the Power Contract yields an acceptable return and that its terms fall within the margin of discretion which a public company enjoys in running its business. The Icelandic authorities have submitted that this is demonstrated by (i) a comparison with other contracts with energy-intensive users; (ii) the determination of price and the presence of business risk; (iii) its duration and potential for adjustment to market developments; and (iv) the profitability of investments made by Landsvirkjun. The arguments have to some extent been further developed in Landsvirkjun's submissions, in particular as regards the profitability. The profitability calculations submitted are discussed in section I.2.3.4 above. Furthermore, it is submitted that the following factors must be taken into account: (i) that the power price is high compared to existing power contracts with energy-intensive users; (ii) the duration of the Power Contract is shorter than in existing power contracts with energy-intensive users; and (iii) there is the possibility of getting higher prices from the Plant and its extension in the future, and to get higher prices from other energy-intensive users.<sup>40</sup>
- (46) With a duration of [...] years, the Power Contract is shorter in duration than many of the power contracts that are currently being executed by Landsvirkjun, where a duration of 20 years and more was common. However, Landsvirkjun has for some time aimed at shortening the contract periods in new power contracts towards no longer than [...] to [...] years, which would facilitate the adjusting of the price for contract electricity to the price developments in more liquid electric power markets than that of Iceland.<sup>41</sup>
- (47) The Icelandic authorities have informed the Authority that Landsvirkjun sees the contract also as an implementation of the company's new strategy that is aimed at increasing the diversity of its client base. Silicon metal represents a new industry in the company's portfolio, which it believes has good long-term prospects in Iceland where power is generated from renewable energy sources only. They submit that the Power Contract was negotiated on normal market terms and provides an acceptable rate of return to Landsvirkjun, and that it hence does not confer an advantage on PCC.
- (48) Moreover, they contend that there was no transfer of state resources.<sup>42</sup> The Icelandic authorities have provided more specific views on the issue of imputability, in particular as regards the involvement of Landsvirkjun's owners, *i.e.* the Icelandic State. The State was informed of the progress of discussions between Landsvirkjun and PCC while the negotiations were in progress, but according to the Icelandic authorities no formal approval was obtained/needed from it, neither with regard to the methodology used or individual substantive provisions of the Power Contract. In essence, the Icelandic authorities argue that the State did not exert any direct influence on the contract nor the negotiations, and that therefore the measure is not imputable to the State.<sup>43</sup>

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<sup>39</sup> Notification cover letter. Doc No 752851.

<sup>40</sup> Doc No 753804, page 19 to 30.

<sup>41</sup> Doc No 753804, page 12 and 19.

<sup>42</sup> Doc No 753804, pages 15 to 19.

<sup>43</sup> Doc No 753804, page 18.

## II. ASSESSMENT

### 1. The presence of state aid

#### 1.1. State aid within the meaning of Article 61(1) of the EEA Agreement

(49) Article 61(1) of the EEA Agreement reads as follows:

*“Save as otherwise provided in this Agreement, any aid granted by EC Member States, EFTA States or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Contracting Parties, be incompatible with the functioning of this Agreement.”*

(50) Accordingly, a measure constitutes state aid within the meaning of Article 61(1) of the EEA Agreement if the following conditions are cumulatively fulfilled: the measure (i) is granted by the State or through state resources; (ii) confers an economic advantage on the beneficiary; (iii) is selective; (iv) it is liable to effect trade between Contracting Parties and distort competition.<sup>44</sup>

#### 1.2. The Power Contract

(51) To be qualified as state aid, the advantage must be granted by the State or through state resources. The advantage can also be granted through a public undertaking provided there is imputability to the State.<sup>45</sup> However, the question of whether there is imputability to the State is only relevant if the Power Contract is not concluded on market conditions in line with the market economy operator (MEO) test.<sup>46</sup> In other words, the Authority does not need to assess the question of imputability –or the other criteria of the state aid notion– insofar Landsvirkjun entered into an agreement that any private electricity producer operating on the market would have found acceptable.

(52) The Authority observes that the first issue is to examine whether a private investor operating in a market economy would have chosen to enter into a long-term bilateral contract for the same price and on the same terms as in the agreement under assessment.<sup>47</sup>

(53) The Icelandic authorities have argued that the contract was concluded on market terms, i.e. by comparing price and duration with contracts with energy-intensive users in the past and referring to the profitability and the business risk related to the investment needed. Thus, according to their arguments, PCC does not derive any undue advantage from the Power Contract.

<sup>44</sup> According to settled case law, classification as aid requires that all the conditions set out in the provision should be fulfilled, see judgment in *Belgium v. Commission (“Tubemeuse”)*, C-142/87, EU:C:1990:125, paragraph 25.

<sup>45</sup> Judgment in *France v Commission (Stardust Marine)*, C-482/99, EU:C:2002:294, paragraphs 50-59.

<sup>46</sup> This principle is explained in the Authority’s state aid guidelines. Application of state aid provisions to public enterprises in the manufacturing sector (OJ L 274, 26.10.2000, page 29 and EEA Supplement No 48, 26.10.2000).

<sup>47</sup> See the Authority’s decision No 305/09/COL on power sales agreement entered into by Notodden municipality and Becromal Norway AS and Decision No 67/15/COL on the sale and transmission of electricity to United Silicon in Helguvík.

- (54) When governments make financial transactions and investments, the Court of Justice of the European Union (CJEU) has stated that in order to confirm whether a state measure constitutes aid, it is necessary to establish whether the recipient undertaking receives an economic advantage, which it would not have obtained under normal conditions.<sup>48</sup> In doing so, the Authority has to apply the market economy operator (MEO) test,<sup>49</sup> which in essence provides that state aid is granted whenever a state makes funds available to an undertaking which in the normal course of events would not be provided by a private investor applying ordinary commercial criteria and disregarding other considerations of a social, political or philanthropic nature.<sup>50</sup>
- (55) The measures at hand – a power contract, with a publicly owned company as a seller, could thus entail an element of state aid if its terms are such that they would not have been acceptable to a private market investor and that the sale of electricity could not have been expected to be sufficiently profitable for a private operator.
- (56) Whilst the Authority fully recognises the right for public companies such as Landsvirkjun to operate on the market on commercial terms, it nevertheless must consider carefully whether similar agreements would have been concluded by a private market operator.<sup>51</sup> Moreover, the Authority must base its assessment of the price and terms of the Power Contract between Landsvirkjun and PCC on the information available at the time of the negotiation and conclusion of the contract,<sup>52</sup> thus February/March 2015.
- (57) Ordinarily, when a sale by a public company or a public authority is assessed, the market price for the good under assessment can be used as a relevant benchmark. In the case at hand, however, a market price is not readily available, given the peculiarities of the Icelandic electricity market. A large majority of all electricity is sold to a few customers, which all have concluded long-term agreements with the domestic power providers at different points in time. Furthermore, the Icelandic market is isolated from the rest of the world, as currently no power can be transmitted across the border. The abundant potential to produce electricity in Iceland and this isolation are assumed to be the main reasons for the differences in the price of electricity in Iceland and elsewhere in the EEA.
- (58) For the reasons set out above, the Authority must rely on an assessment of the profitability of the investment needed to provide PCC with the contract power in order to establish whether a private market economy operator would have concluded the contract on the same terms. In the case at hand, the profitability of the investment and operation of the Peistareykir Power Station is therefore at the centre of the assessment.
- (59) Since market data is not available and market conditions cannot be empirically established by reference to “*pari passu*” transactions or an open, transparent non-discriminatory and unconditional tender procedure, and since benchmarking (comparable transactions carried out by comparable private operators in comparable situations<sup>53</sup>) is not an available method

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<sup>48</sup> Judgment in *SFEI v La Poste*, C-39/94, EU:C:1996:285, at paragraph 60.

<sup>49</sup> This principle is explained in the Authority’s State aid guidelines. Application of State aid provisions to public enterprises in the manufacturing sector. See footnote 46 above.

<sup>50</sup> See the Opinion of Advocate General Jacobs in *Spain v the Commission*, Joined Cases C-278/92, C-279/92 and C-280/92, EU:C:1994:325, at paragraph 28.

<sup>51</sup> See the Authority’s State aid guidelines, Application of State aid provisions to public enterprises in the manufacturing sector, paragraph 5(1). See footnote 46 above.

<sup>52</sup> Judgment in *P&O European ferries*, Joined Cases T-116/01 and T-118/01, EU:T:2003:217, paragraphs 117-118.

<sup>53</sup> According to the CJEU “*in the absence of any possibility of comparing the situation of [La Poste] with that of a private group of undertakings [...], normal market conditions, which are necessarily hypothetical,*

for establishing whether the transaction was in line with market conditions, determination of the return on the investment in the Power Station by calculating the NPV and/or internal rate of return (IRR) on the project are generally-accepted standard methodologies that can be used for establishing whether the transaction was in line with market conditions.<sup>54</sup>

- (60) For making the assessment, the Authority must base its methodology on available objective, verifiable and reliable data.<sup>55</sup> This data must be sufficiently detailed, reflecting the economic situation at the time at which the terms of the Power Contract were decided, taking into account the level of risk and future expectations.
- (61) Based on these premises, the Authority has assessed the economic terms of the Power Contract and other contractual conditions that might be in Landsvirkjun's interest.
- (62) First, regarding the value of the Power Contract, Landsvirkjun has provided profitability calculations with and without already accrued costs.<sup>56</sup> They demonstrate that building a 90 MW power station would be profitable, taking into account the already accrued costs, by the estimated income generated by the Power Contract, as calculated by Landsvirkjun. Landsvirkjun has presented a base case with CAPEX of USD [...] million and a cost of capital of [...]%. Given these assumptions and the estimated income generated by the Power Contract, the investment in the Power Station would be profitable (i.e. the rate of return exceeds the cost of capital and therefore the NPV is positive).<sup>57</sup>
- (63) Landsvirkjun's calculations show that the Power Contract would be profitable with an average real price of USD [...] per MWh in real terms over the duration of the contract (90 percent confidence interval of USD [...] to [...] per MWh).<sup>58</sup> This is close to the minimum price which suggests that the risk of over-estimating revenues is limited. On the other hand, the contract appears to have an upside in terms of higher than estimated revenues but this upside is capped at [...]% of the [...]. The potential upside which the indirect revenue of an estimated [...] million USD represent is also not included in the base case, which further suggests that the project overall is likely to be profitable.

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*must be assessed by reference to the objective and verifiable elements which are available*". Judgment in *Chronopost*, Joined Cases C-83/01 P, C-93/01 P and C-94/01 P, EU:C:2003:388, paragraph 38.

<sup>54</sup> The Authority has already stated in its State aid Guidelines. Application of State aid provisions to public enterprises in the manufacturing sector (see footnote 46 above), that "*only where there are no objective grounds to reasonably expect that an investment will give an adequate rate of return that would be acceptable to a private investor in a comparable private undertaking operating under normal market conditions, is State aid involved*" (see paragraph (1), under the subtitle "*Practicality of the market economic investor principle*"). Consequently, the compliance with the market operator principle (MEO) of a given project can be assessed by reference to the economic conditions under which a private company in similar circumstances would accept to undertake it. This is normally done by calculating the NPV or IRR of the project. The NPV is the sum of the discounted value of all cash flows that it generates –including the original capital investment and the end-of-period or residual value. A company will carry out projects with a positive NPV. See also the draft Commission Notice on the notion of state aid (available at: [http://ec.europa.eu/competition/consultations/2014\\_state\\_aid\\_notion/draft\\_guidance\\_en.pdf](http://ec.europa.eu/competition/consultations/2014_state_aid_notion/draft_guidance_en.pdf)), paragraph 105 et seq. See also judgment in *Ciudad de la Luz*, Joined Cases T-319/12 and T-321/12, EU:T:2014:604, paragraph 40 and 73.

<sup>55</sup> See judgment in *Scott v Commission*, T-366/00, EU:T:2007:99, paragraph 134. See also judgment in *Chronopost*, cited above, paragraph 38.

<sup>56</sup> Doc No 753804, pages 28 and 29.

<sup>57</sup> The Icelandic authorities and the Authority do not share the same opinion on whether the accrued costs should be taken into account. However, the profitability of the 2015 Power Contract has been assessed by the Authority both including and excluding those costs. In both scenarios, the 2015 Power Contract proved to be profitable.

<sup>58</sup> Doc No 753804, page 28.

- (64) It appears that Landsvirkjun does not have the option under the Power Contract to delay the start of delivery of the power and provide the energy by means of a different source than that generated by the planned Power Station, should the construction of the Power Station be delayed. At this point in time, the contract power, 52 - 58 MW, is not available in Landsvirkjun's generation system. The power company must construct a new power station for the purposes of delivering the contract power. The Authority understands that Landsvirkjun would not be able to provide the contract power by constructing a new plant in a different region, due to the limited possibilities to transmit additional power to the North-East region from other regions. In contrast, according to Landsvirkjun's own assessment, such limitations in terms of transmission capacity would not be present were it to provide power from the Power Station to potential customers in the South-West of Iceland.<sup>59</sup> As demonstrated by Landsvirkjun's internal documents, since the PCC Plant will be located in the North-East of Iceland, the only possible way to provide the energy within the time frame envisaged in the agreements entered into with PCC is to generate it in the new facility to be built at Peistareykir.<sup>60</sup>
- (65) Landsvirkjun is planning to develop the three areas in the North-East of Iceland, i.e. Peistareykir, Bjarnarflag and Krafla, in a step-wise sustainable manner over 10-20 years supplying both new industries at Bakki and transmitting a portion of the electricity to other delivery points in the country. The strategy is also to increase the value of the geothermal resources by selling effluent gases and water from the geothermal plants to various industries located in the vicinity of the plants e.g. for growing algae, producing synthetic fuel and for the operation of geothermal spas.<sup>61</sup>
- (66) In the Authority's view, the facts provided demonstrate that the Power Contract has been concluded on market terms, as it is expected that the Power Contract generates an acceptable rate of return for Landsvirkjun.
- (67) Second, the Take or Pay Obligation for [...] % of the contract power per annum ensures that there will be a constant stream of revenue, regardless of the business success of PCC.
- (68) Third, the duration of the Power Contract is shorter than that of average existing contracts with energy-intensive users in Iceland. This should allow Landsvirkjun to adjust its prices to market developments elsewhere better than was possible in past contracts with energy-intensive users.
- (69) Fourth, Landsvirkjun has flexible curtailment options according to the Power Contract. This implies that Landsvirkjun has the possibility to curtail more power from PCC than from other power intensive industries if there is energy shortage in Iceland, without a need to pay indenisations for this. The flexible curtailment conditions therefore have economic value for the company.
- (70) Finally, Landsvirkjun has identified other likely additional revenue drivers that stem directly or indirectly from the Power Contract, i.e. additional revenues through the sale of green certificates, bi-products coming from geothermal power plants such as hot water, low pressure steam, CO<sub>2</sub> and H<sub>2</sub>S that can be developed into valuable products for sale, etc.

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<sup>59</sup> Internal memorandum on transmission of electricity from North-East region to South-West region, prepared by Landsvirkjun's development division 27.2.2014, presented at a board meeting on 6.3.2014. Doc No 711544.

<sup>60</sup> The need to use the geothermal resources of the North-East of Iceland is linked to the current transmission bottlenecks in the current transmission system. Doc No 753804, page 7.

<sup>61</sup> Doc No 753804, page 30.

However, the potential revenues of these additional drivers have not been taken into account in Landsvirkjun's profitability calculations.

- (71) For the above reasons, the Authority concludes, on the basis of the information provided by the Icelandic authorities and Landsvirkjun, that Landsvirkjun has acted as a private operator would have done, whilst signing the Power Contract. Consequently, the Authority concludes that the conditions of the Power Contract do not entail an advantage for PCC.
- (72) Since the criteria in Article 61(1) of the EEA Agreement are cumulative, there is no need to establish whether the other criteria of the state aid notion are met in the case at hand.

## **2. Conclusion**

- (73) On the basis of the foregoing assessment, the Authority considers that the Power Contract does not constitute state aid within the meaning of Article 61(1) of the EEA Agreement.

HAS ADOPTED THIS DECISION:

### *Article 1*

The Power Contract dated 27 March 2015 between Landsvirkjun and PCC, as notified for legal certainty, does not constitute state aid within the meaning of Article 61(1) of the EEA Agreement.

### *Article 2*

This Decision is addressed to Iceland.

### *Article 3*

Only the English language version of this decision is authentic.

Decision made in Brussels, on 20 May 2015.

*For the EFTA Surveillance Authority*

Oda Helen Sletnes  
*President*

Frank Büchel  
*College Member*