

Attitudes

Toward an Aluminium Plant
in Reydarfjörður and the
Kárahnjúkar Hydroelectric Project



1. SUMMARY

Since 1999 a number of opinion polls have been carried out examining attitudes toward the building of an aluminium plant in Reydarfjörður and the building of a hydro power station with a dam at Kárahnjúkar. The most extensive polls have been conducted by the Institute of Social Sciences at the University of Iceland and Gallup but some been conducted out by the Icelandic press.

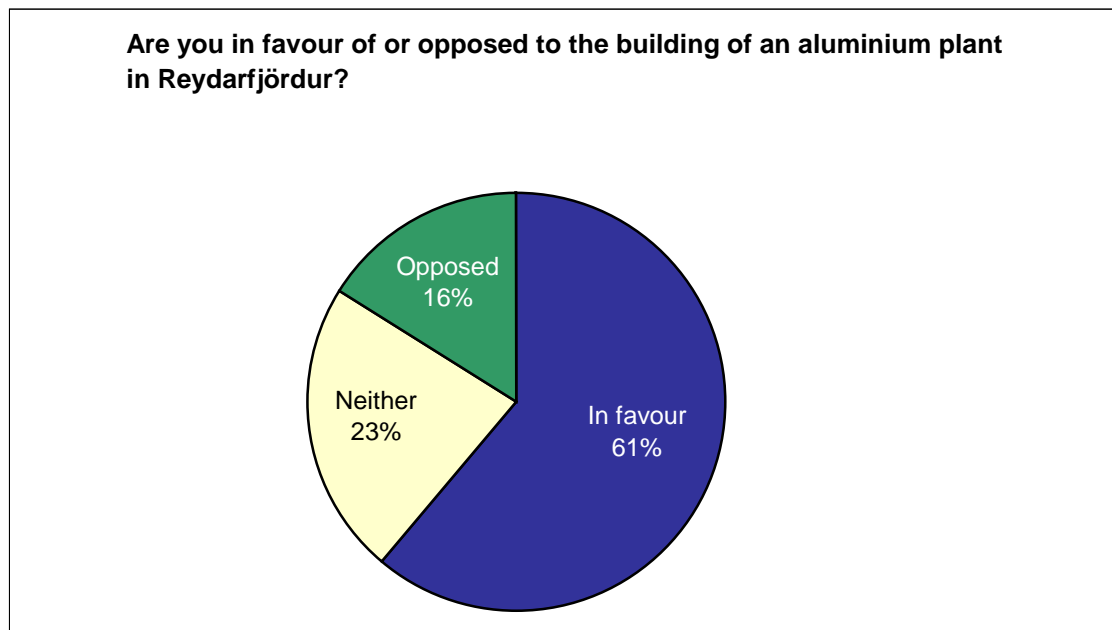
This paper offers a brief overview of the main results from polls carried out in the 1999-2002 period.

In this period attitudes toward the two projects have remained relatively stable despite an extensive social and political debate, some dramatic developments and prominent media coverage. Although political affiliation and habitation are some of the most influential variables in forming opinions on the issue, the evidence seems to suggest that recent developments have led to increased public and political consensus. A majority of Icelanders, or 61%, now support the building of an aluminum smelter in Reydarfjörður and just over 50% support the Kárahnjúkar project whilst just over 32% oppose it. Support for the projects is weaker in the Reykjavík area than other parts of the country.

2. ATTITUDES TOWARD AN ALUMINIUM PLANT IN REYDARFJÖRDUR

A poll carried out by Gallup in July 2002 demonstrates that majority of participants (61%) favour the building of an aluminium plant in Reydarfjörður. About 23% oppose the project and 16% neither favour nor oppose building the plant (see figure 1).

Figure 1

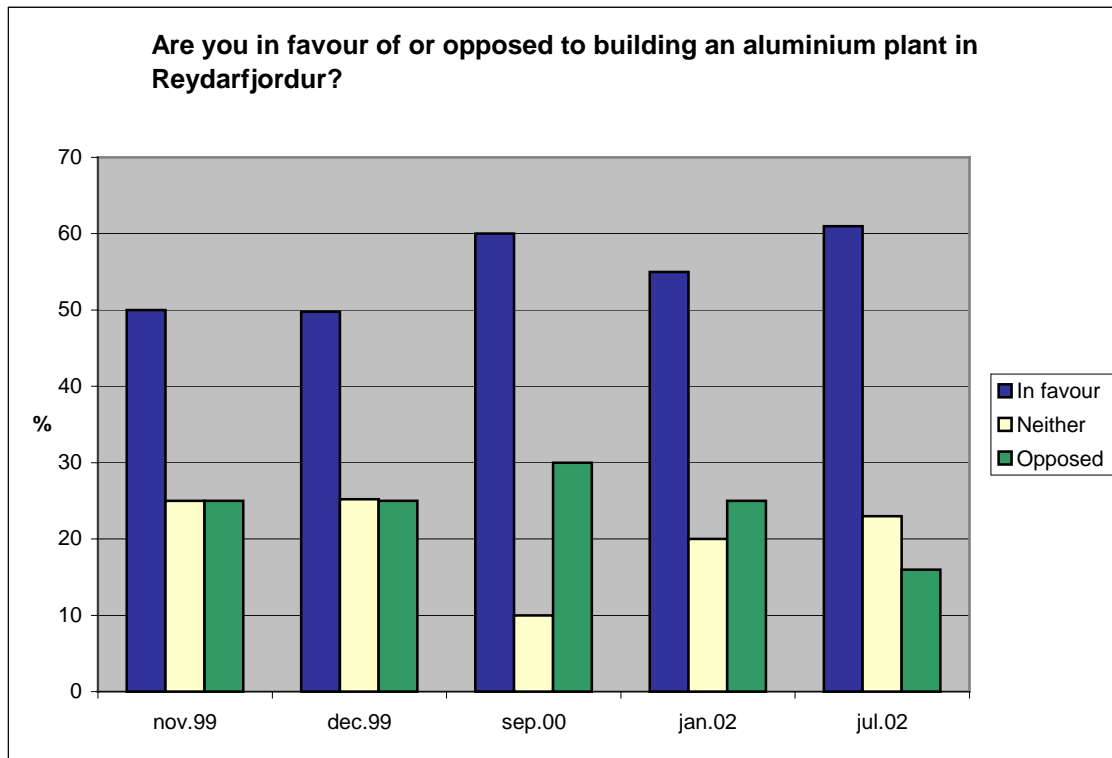


There have not been extensive changes in opinions toward this issue in the 1999-2002 period, although support for the aluminium plant has somewhat grown. At the same time the proportion of those undecided has become lower. Table 2 and Figure 2 both show results from polls carried out in November and December 1999, September 2000, and January and July 2002. Support for the project was at a low in December 1999 (49.8%) but the three latest polls clearly show a stable majority support for the project. In September 2000, 60% of those who answered favoured the building of an aluminium plant in Reydarjördur, 55% in January 2002 and, as mentioned above, 61% in July 2002.

Table 1

| Are you in favour of or opposed to building an aluminium plant in Reydarfjörður? | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|
| | Nov. 1999 | Dec. 1999 | Sep. 2000 | Jan. 2002 | Jul. 2002 |
| In favour | 50% | 49.8% | 60% | 55% | 61% |
| Neither | 25% | 25.2% | 10% | 20% | 16% |
| Opposed | 25% | 25% | 30% | 25% | 23% |
| <i>Total:</i> | 100% | 100% | 100% | 100% | 100% |

Figure 2



ATTITUDES TOWARD THE ALUMINUM PLANT BY POLITICAL AFFILIATION

The Progressive Party and the Independence Party currently form a coalition government in Iceland. The Alliance (a social democratic party) and the Left-Green Party are the largest parties in opposition. Opinions on the construction of the plant vary by people’s political affiliation and voters of the Progressive Party have throughout been most favourable towards the project, followed closely by supporters of the Independence Party (see table 2). On a scale of 1-5, with 5 indicating “very much in favour” whilst 1 means “very much opposed,” voters of the Progressive Party rated 4.3 in January 2002 and 4.2 July 2002. Supporters of the Independence Party measured 3.9 in January and 4.2 in July. In the same polls voters of The Alliance rated 3.2 and 3.6.

Table 2

| Are you in favour of or opposed to building an aluminium plant in Reydarfjordur? - by political affiliation - | | |
|--|-----------------------------|---------|
| | Mean average on a 1-5 scale | |
| | Jan '02 | Jul '02 |
| Progressive Party | 4.3 * | 4.2 * |
| Independence Party | 3.9 * | 4.1 * |
| The Alliance | 3.2 * | 3.6 * |
| The Left-Green Party | 2.7 * | 2.5 * |

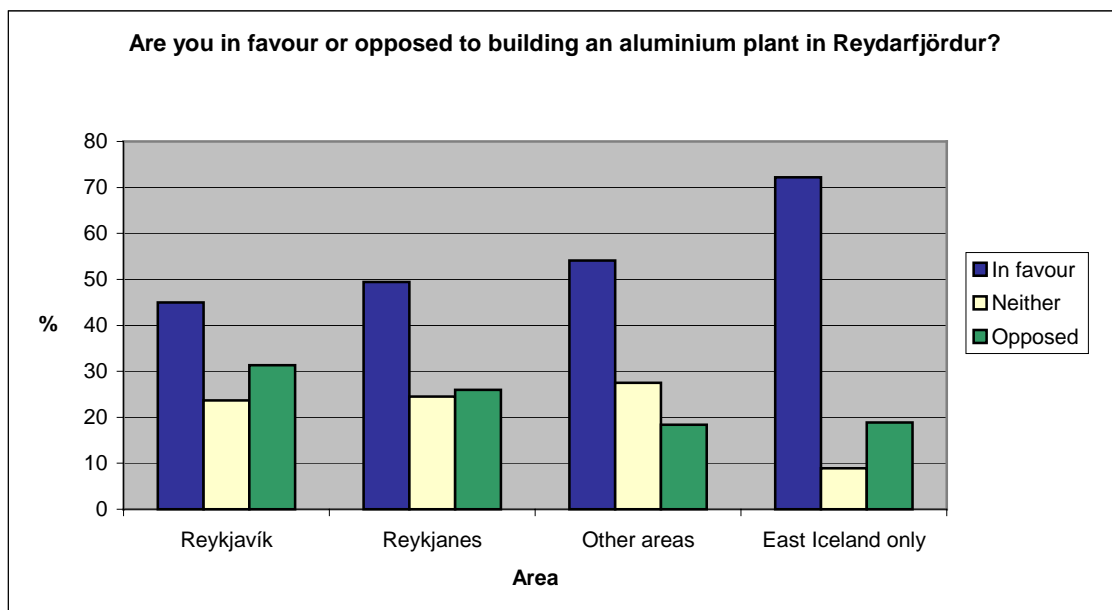
* Significant difference

The Left Green Party has from the very start objected stongly to the project and its supporters measured 2.7 in January 2002 and 2.5 in July. This can, however, be accounted a somewhat more positive position than might have been expected, especially in light of the party leaders' fierce opposition towards the aluminium plant in Reydarfjördur and the Kárahnjúkar Hydro Project.

HABITATION

People outside the Reykjavík area are more in favour of the project than people living in Reykjavík. Results from 1999 indicate that this difference is especially stark between Reykjavík and East Iceland, where a vast majority of people favour an aluminium plant in Reydarfjördur, and less than 20% oppose (see figure 3).

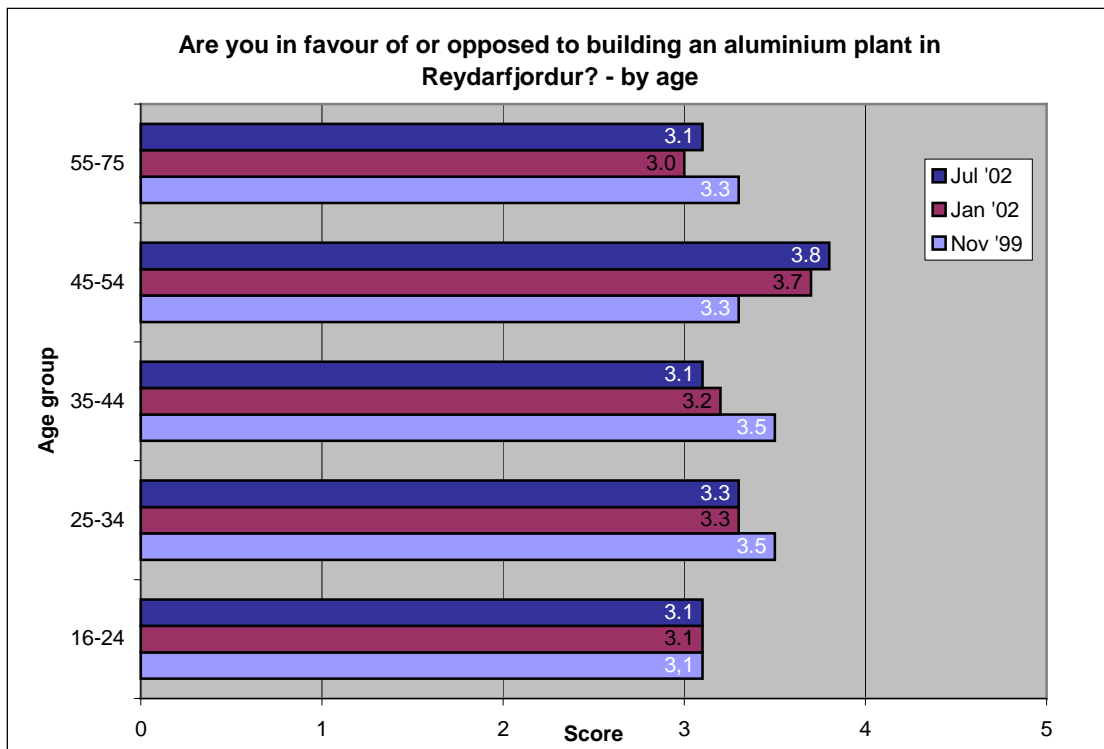
Figure 3



AGE, INCOME AND EDUCATION

Age, income and education have in some polls proven to be influential variables when it comes to attitudes toward an aluminum plant in Reydarfjördur. This difference did, however, only prove to be significant in some polls. Figure 4 shows results from polls conducted by Gallup in November 1999, January 2002 and July 2002. In January 2002 the difference between age group was not statistically significant.

Figure 4



Scores are an average on a scale of 1-5, with 5 indicating "very much in favour" of building an aluminium plant in Reydarfjordur whilst 1 means "very much opposed".

The scores have not changed dramatically since 1999, although support for the aluminium plant has somewhat decreased in the 25-34, 35-44 and 55-75 age groups. At the same time support for the plant has grown in the 45-54 age group. Backing for the aluminum project in Reydarfjordur seems to be greater in this group than others but the youngest and oldest people seem to be more against the project. Family income did neither prove to be a significant variable in January nor July. Education did however prove to be significant in January but not in July. As table 3 demonstrates, those with high school diplomas (somewhat comparable to British A-levels) seem to be more in favour of the aluminium plant than those with less education, as well as participants with university degrees.

Table 3

| Are you in favour of or opposed to building an aluminium plant in Reydarfjordur? - by education - | | |
|--|-----------------------------|---------|
| | Mean average on a 1-5 scale | |
| Education | Jan '02 | Jul '02 |
| Mandatory school certificate | 3.4 * | 3.7 |
| Mandatory school certificate + | 3.5 * | 3.6 |
| High School Leaving Cert. | 3.8 * | 3.7 |
| University Degree | 3.3 * | 3.4 |

* Significant difference

3. ATTITUDES TOWARD THE KÁRAHNJÚKAR HYDRO PROJECT

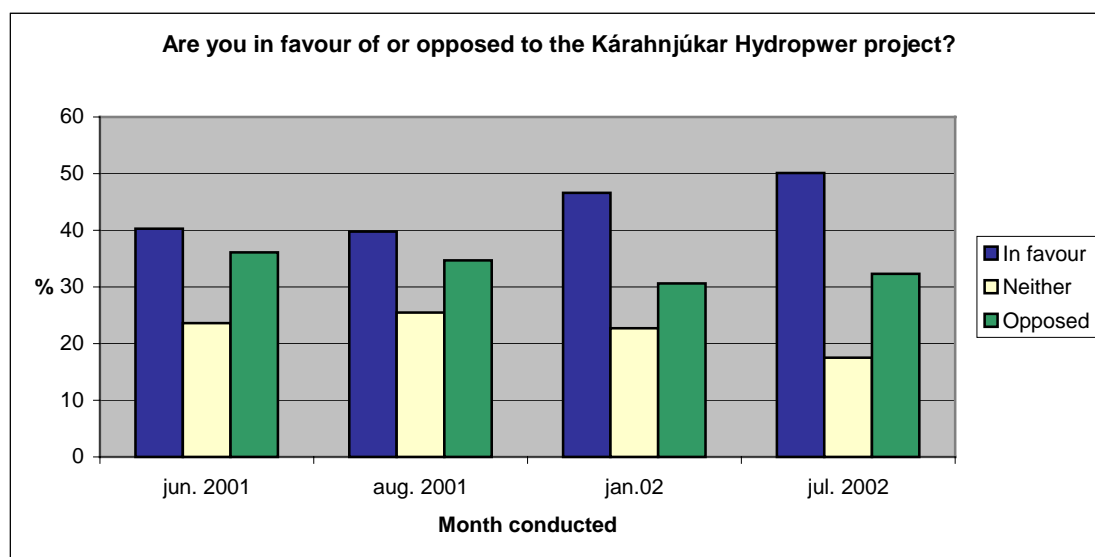
More controversy has undeniably surrounded the proposed Kárahnjúkar Hydropower Project than the plant in Reydarfjörður, although the two are indisputably intertwined. Table 4 and figure 5 both show the same results from nationwide polls carried out in June and August 2001 and in January and July 2002. The project seems to enjoy growing support and opposition seems to be decreasing.

Table 4

| Are you in favour of or opposed to the Kárahnjúkar Hydropower project? | | | | |
|--|-----------|-----------|-----------|-----------|
| | Jun. 2001 | Aug. 2001 | Jan. 2002 | Jul. 2002 |
| In favour | 40.3% | 39.8% | 46.6% | 50.1% |
| Neither | 23.6% | 25.5% | 22.7% | 17.5% |
| Opposed | 36.1% | 34.7% | 30.6% | 32.3% |
| <i>Total:</i> | 100% | 100% | 100% | 100% |

The June 2001 poll is carried out before the State's Planning Agency rejected the Kárahnjúkar Power Plant in its ruling concerning the assessment of the development's environmental impact. The grounds of the rejection were considerable environmental impact along with insufficient information on individual factors of the construction and its environmental effects. As provided for by law, it is possible to appeal a Planning Agency ruling to the Minister of the Environment. When such circumstances arise the process of the case terminates with the ministerial decision. The poll from August 2001 was carried out after the Planning Agency announced its ruling. Despite the rejection, support for the project did not decrease significantly compared to the June poll.

Figure 5



Since then, support for the project has steadily grown and in January and July 2002 fewer participants were either neutral or opposed to the Kárahnjúkar project than in the 2001 polls.

As developer, The National Power Company appealed the ruling of the Planning Agency, as did also the Regional Association of Local Authorities in Eastern Iceland, Fjardabyggd (the community in the East where the aluminium plant is to be built), labour organisations in East Iceland and a great number of individuals. In the aftermath, the Icelandic Minister for the Environment, Siv Fríðleifsdóttir, approved the proposed Kárahnjúkar Power Plant in her extensive ruling on its environmental impact assessment, announced on 20 December 2001. With the ruling, the Minister presented twenty itemised conditions, demanding significant changes to the power plant in order to reduce its environmental impact.

ATTITUDES TOWARD THE KÁRAHNJÚKAR PROJECT BY POLITICAL AFFILIATION

Poll results from January and July seem to indicate that the Minister’s decision has led to a higher degree of reconciliation on the issue than before. In addition to this, The Alliance’s leader publicly declared that, although in opposition, he and his party are now in favour of the Kárahnjúkar project. Voters of The Alliance can therefore be considered to be increasingly likely to favour the Kárahnjúkar Hydro Project. Table 5 seems to validate this point as voters of the party seem to have become more supportive of the proposed project.

Table 5

| Are you in favour of or opposed to the Kárahnjúkar project? - by political affiliation - | | | |
|---|-----------------------------|--------------|-----------|
| | Mean average on a 1-5 scale | | |
| | June 2001 | January 2002 | July 2002 |
| Progressive Party | 3.6 | 4.0* | 3.8* |
| Independence Party | 3.5 | 3.7* | 3.8* |
| The Alliance | 2.7 | 3.0* | 3.2* |
| The Left-Green Party | 2.3 | 2.3* | 2.2* |

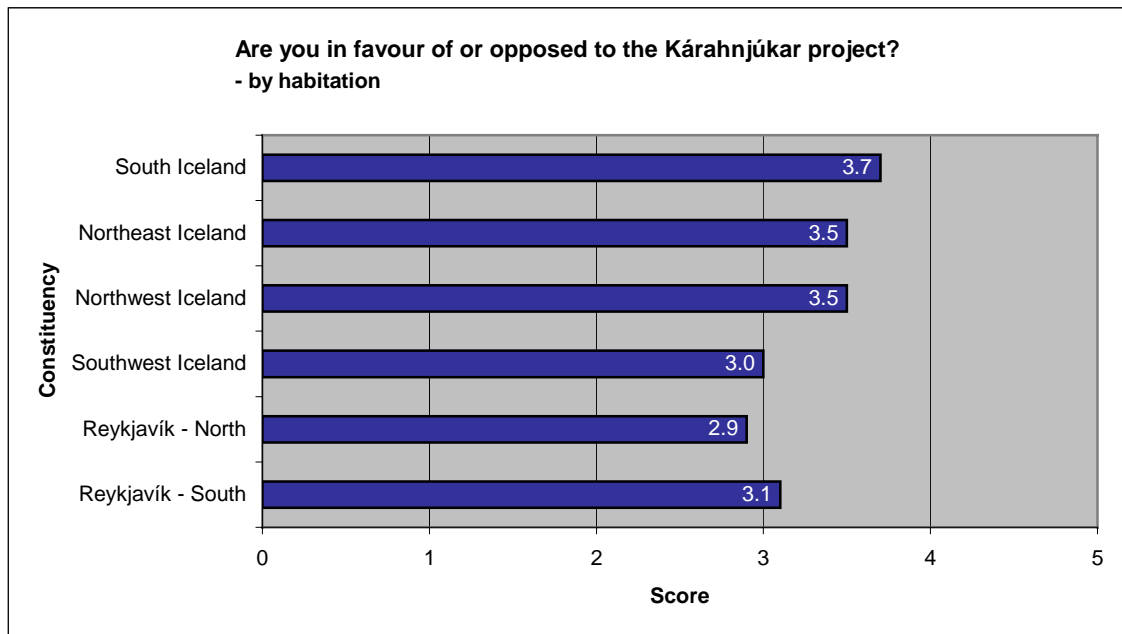
* Significant difference

HABITATION

Attitudes toward the Kárahnjúkar project follow a similar trend, in terms of habitation, as those toward the aluminium plant in Reyðarfjörður. Poll participants outside the Reykjavík area are generally more in favour of a large power station in East Iceland than people living in Reykjavík. In 1999, the National Power Company had the Fljótsdalur powerstation, with a reservoir at

Eyjabakkar, on the drawing board, as the favoured hydroelectric project in East Iceland. Opposition against this project was strongest in the Reykjavík and Reykjanes areas, but much less in other parts of the country . In 2002, attitudes toward the Kárahnjúkar Hydroelectric Project follow the same trend. Figure 6 shows results, in different constituencies, from a poll conducted in July 2002.

Figure 6



Scores are an average on a scale of 1-5, with 5 indicating “very much in favour” of the Kárahnjúkar project whilst 1 means “very much opposed”.

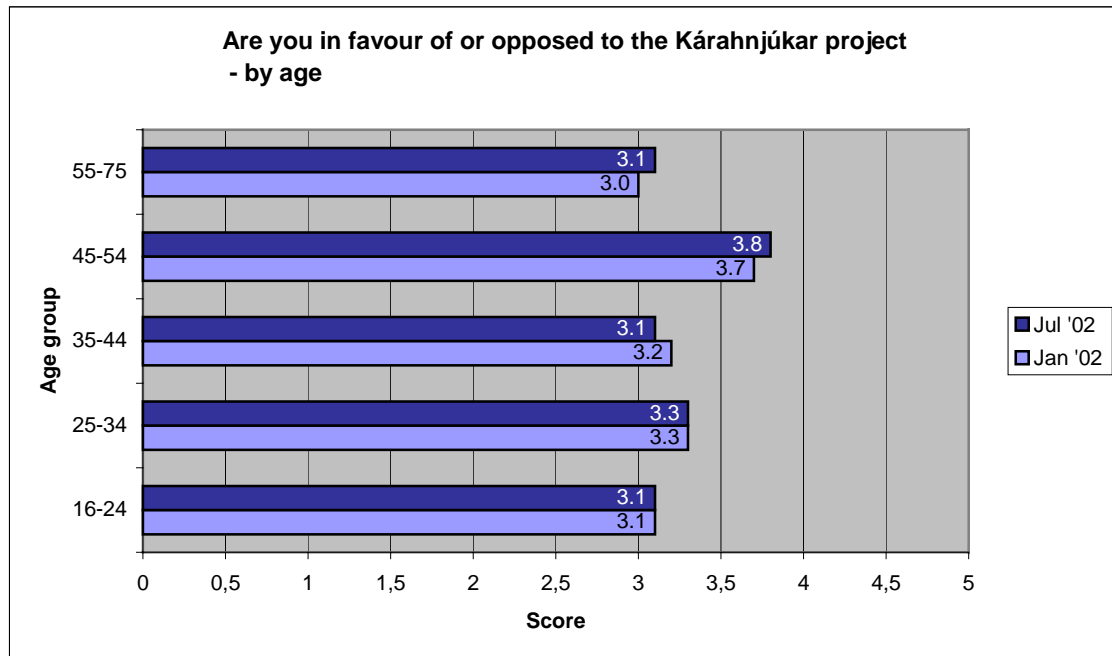
It is worth noting that support for the hydropower project is strongest in South Iceland. This constituency has in recent years and decades seen a lot of hydropower developments. A plausible explanation for this support could, however, be the fact that both the parties forming the government, the Independence Party and the Progressive Party, enjoy strong support in this constituency. In the same vein, support in Northeast Iceland, the constituency where the aluminium plant and the hydro station will be located, is somewhat lower than might have been expected. This can possibly be explained by the significant following of the Left-Green Party and its leader in the area.

AGE, INCOME AND EDUCATION

As with the aluminium plant in Reydarfjörður, support for the Kárahnjúkar hydrostation is strongest in the 45-54 years old age group. Other age groups are quite compatible. Figure 7 demonstrates

results from two different polls conducted by Gallup in January and July 2002. The difference between age groups proved to be significant in both polls.

Figure 7



Scores are an average on a scale of 1-5, with 5 indicating “very much in favour” of the Kárahnjúkar project whilst 1 means “very much opposed”.

Family income proved to be significant in January 2002 but not in July. Those with the highest income were most in favour of the Kárahnjúkar project whilst those with the lowest income were most opposed.

Education was a significant variable both in January and July of 2002, with attitudes following a similar trend as those toward the aluminum plant (see table 6). In July 2002, support was strongest among those with a high school leaving certificate whilst those with university degrees were least in favour of building the hydropower station.

Table 6

| Are you in favour of or opposed to the Kárahnjúkar project? - by education - | | |
|---|-----------------------------|---------|
| | Mean average on a 1-5 scale | |
| Education | Jan '02 | Jul '02 |
| Mandatory school certificate | 3.1 * | 3.3* |
| Mandatory school certificate + | 3.3 * | 3.3* |
| High School Leaving Cert. | 3.5 * | 3.5* |
| University Degree | 3.0 * | 2.8* |

* Significant difference

4. Attitudes in East Iceland

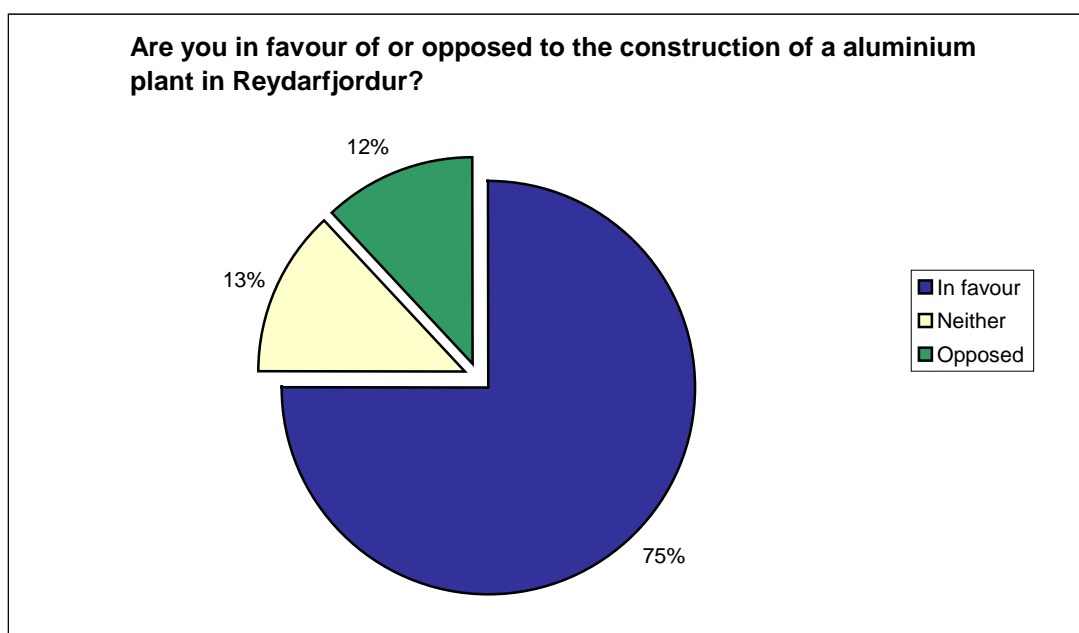
As can be seen above, both the aluminum plant in Reyðarfjörður and the Kárahnjúkar Hydroelectric Project enjoy majority support by people in East-Iceland. At least two surveys have been carried out to further examine attitudes toward the projects in East-Iceland.

SURVEY AMONGST YOUNG PEOPLE IN THE CENTRAL EAST REGION

The Institute of Social Sciences at the University of Iceland conducted a postal survey amongst young people at the age of 18-28 years living in the Central East Region. The survey was carried out in November and December 2000.

Young people in the East Region are generally in favour of an aluminium plant being built in Reyðarfjörður. As figure 8 shows about 75% are in favour of the plant.

Figure 8



The same survey revealed that about 40% of participants were interested in working at the plant if built in Reyðarfjörður. This position varies according to sex and residence with young men (53%) generally more interested than women (29%).

About 87% believe that an aluminium plant in Reyðarfjörður will strengthen the local economy in the East Region very or rather much. About 59% of respondents believe that a plant will lead to

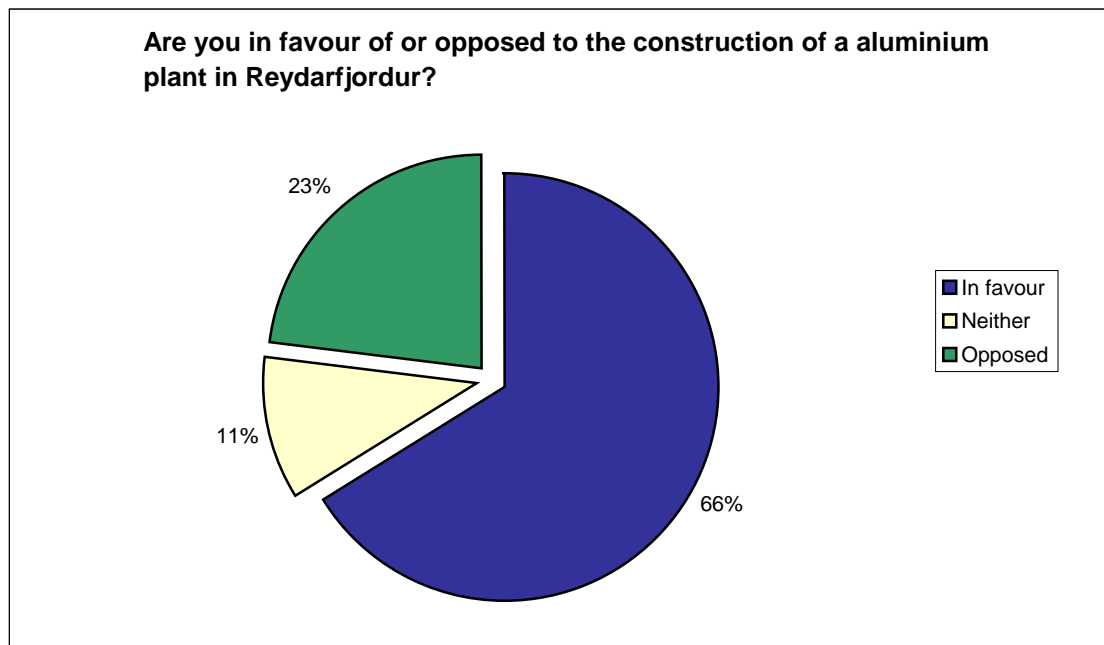
higher salaries in the region and about 40% think salaries will remain similar, but almost none that salaries will decrease. Just over ¾ of respondents think that the aluminium plant will lead to better community life.

A SURVEY AMONGST OUT-MIGRANTS FROM THE CENTRAL EAST REGION

This postal survey was conducted by the Institute of Social Sciences at the University of Iceland for Reydarál in November and December 2000, amongst out-migrants from the East Region. The survey sample comprised 20-49 year old people that moved out of the Central east Region 1995-1999.

The survey shows considerable motivation for people to move back to the East Region if more and better employment opportunities are created. About 17% said it was rather or very likely that they would move back if an aluminium plant was built in Reyðarfjörður, but 49% said it was rather or very unlikely. This position is age dependent as the young people are more motivated to move back than the older people.

Figure 9



In the survey, a majority of the out-migrants, or 66%, was supportive of an aluminium plant in Reydarfjörður and about 23% opposed it (see figure 9). More men, 69%, were supportive than women, 63%.

About 79% of the out-migrants think that an aluminium smelter in Reydarfjörður will strengthen the local economy and the communities rather or very much. Only 10% think the smelter will strengthen the communities and local economy very or rather little. About 38% think that very or rather many out-migrants from the East Region will move back if the smelter project goes ahead. About 29% think that very or rather few will move back.